

316222

|      |                                |
|------|--------------------------------|
| 申請日期 | 83.11.21                       |
| 案公號  | 83110791                       |
| 類別   | 207C6/04 151/16 1.1V 3/16 3/12 |

A4  
C4

316222

(以上各欄由本局填註)

(83110791)

# 發明專利說明書

|            |               |                                                                                                                                                                                                                          |
|------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 一、發明<br>名稱 | 中 文           | 芳基乙酸衍生物                                                                                                                                                                                                                  |
|            | 英 文           | Arylacetic acid derivatives                                                                                                                                                                                              |
| 二、發明<br>人  | 姓 名           | 1. 卡葛爾 (Gerd Kleefeld)<br>2. 田雷夫 (Ralf Tiemann)<br>3. 葛比得 (Peter Gerdes)<br>4. 漢伍奇 (Ulrich Heinemann)                                                                                                                    |
|            | 國 籍           | 5. 丹海威 (Heinz-Wilhelm Dehne)<br>6. 杜史芬 (Stefan Dutzmann)<br>7. 史克勒 (Klaus Stenzel)                                                                                                                                       |
|            | 住、居所          | 1. - 7. 皆德國<br>1. 德國諾斯區法蘭西斯街27號<br>Franziskusstr. 27, 41468 Neuss, Germany<br>2. 德國利佛可生城爾路克街5號<br>Ernst-Ludwig-Kirchner-Str. 5,<br>51375 Leverkusen, Germany<br>3. 德國艾奇恩區伍德街75號<br>Waldstrasse 75, 52080 Aachen, Germany |
| 三、申請人      | 姓 名<br>(名稱)   | 4. 德國列林根區蘇尼路1號<br>Am Sonnenhang 1, 42799 Leichlingen, Germany                                                                                                                                                            |
|            | 國 籍           | 5. 德國柏恩區查威街15號<br>Charles-Wimar-Strasse 15, 53125 Bonn, Germany                                                                                                                                                          |
|            | 住、居所<br>(事務所) | 6. 德國海丹區柯森路10號<br>Kosenberg 10, 40721 Hilden, Germany<br>7. 德國杜斯道區西森街17號<br>Seesener Str. 17, 40595 Düsseldorf, Germany                                                                                                  |
|            | 代 表 人<br>姓 名  | 白羅夫 (Rolf Braun)<br>魏哈特 (Gerhard Weber)                                                                                                                                                                                  |

裝

訂

線

316222

|    |    |                              |
|----|----|------------------------------|
| 申請 | 日期 | 83.11.21                     |
| 案  | 公號 | 83110791                     |
| 類  | 別  | 20726/4 15/16 10/12 3/16 3/2 |

A4  
C4

316222

(83110791)

(以上各欄由本局填註)

# 發明專利說明書

|             |               |                                                                                   |
|-------------|---------------|-----------------------------------------------------------------------------------|
| 一、發明<br>名稱  | 中 文           | 芳基乙酸衍生物                                                                           |
|             | 英 文           | Arylacetic acid derivatives                                                       |
| 二、發明<br>創作人 | 姓 名           | 1. 卡葛爾 (Gerd Kleefeld)<br>2. 田雷夫 (Ralf Tiemann)                                   |
|             | 國 籍           |                                                                                   |
|             | 住、居所          |                                                                                   |
| 三、申請人       | 姓 名<br>(名稱)   | 德商拜耳廠股份有限公司<br>Bayer Aktiengesellschaft                                           |
|             | 國 籍           | 德國                                                                                |
|             | 住、居所<br>(事務所) | 德國利佛可生城拜耳工業區D-5090<br>D-5090 Leverkusen-Bayerwerk, Federal<br>Republic of Germany |
|             | 代 表 人<br>姓 名  | 白羅夫(Rolf Braun)<br>魏哈特(Gerhard Weber)                                             |

裝

訂

線

316222

(由本局填寫)

承辦人代碼：

A6

大類：

B6

I P C分類：

本案已向：

德 國 ( 地區 ) 申請專利，申請日期： 案號： ， ☐ 有 ☒ 無主張優先權

西元1993年12月22日 P 43 43 829.6

西元1994年 7月14日 P 44 24 788.5

有關微生物已寄存於：

，寄存日期：

，寄存號碼：

(請先閱讀背面之注意事項再填寫本頁各欄)

裝

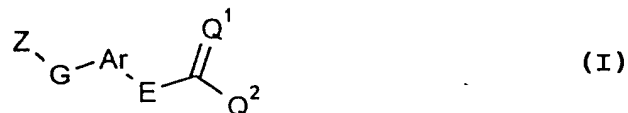
訂

線

經濟部中央標準局員工消費合作社印製

四、中文發明摘要 (發明之名稱： 芳基乙酸衍生物 )

本發明係關於新穎式 (I) 芳基乙酸衍生物



其中

Ar、E、G、Q<sup>1</sup>、Q<sup>2</sup> 及 Z 具下文中所給定義，

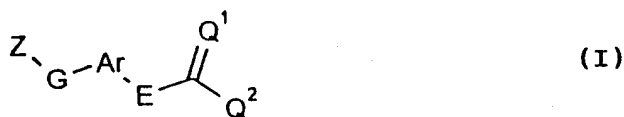
關於其製備方法，以及關於其作為殺真菌劑之用途。

(請先閱讀背面之注意事項再填寫本頁各欄)

裝

英文發明摘要 (發明之名稱： Arylacetic acid derivatives )

The invention relates to new arylacetic acid derivatives of the formula (I)



in which

Ar, E, G, Q<sup>1</sup>, Q<sup>2</sup> and Z have the meanings given in the description,

to processes for their preparation, and to their use as fungicides.

訂

線

## 五、發明說明(1)

本發明係關於新穎芳基乙酸衍生物、其製備方法及其作為殺真菌劑之用途。

本發明業發現式(I)新穎芳基乙酸衍生物

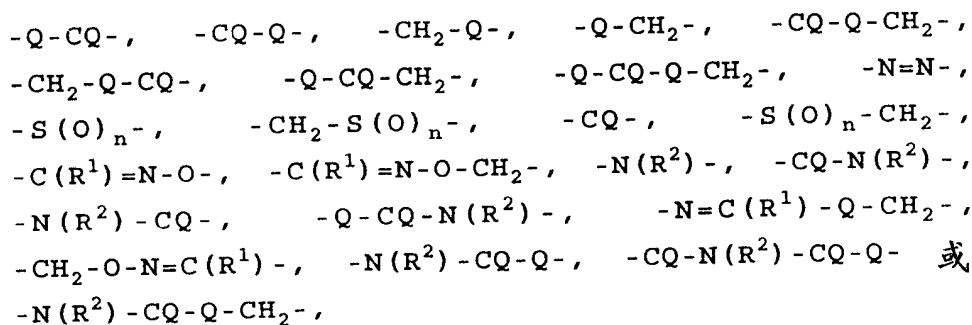


其中

Ar 代表分別選擇地經取代之伸芳基或伸雜芳基，

E 代表1-烯-1,1-二基或2-氮雜-1-烯-1,1-二基，其分別於2-位置含有鹵代烷氧基，

G 代表氧、直接鍵，或烷二基、烯二基或炔二基，其分別選擇地經鹵素、羥基、烷基、鹵代烷基或環烷基所取代，或代表下列基群之一：



其中

n 代表0、1或2，

Q 代表氧或硫，

R<sup>1</sup> 代表氫、氟基、或分別選擇地經取代之烷基、烷氧基、烷硫基、烷胺基、二烷胺基或環烷基，且

## 五、發明說明(2)

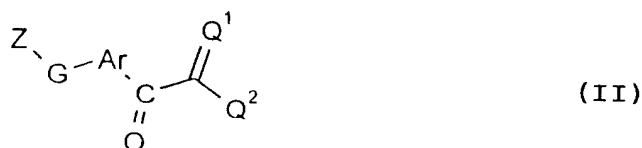
R<sup>2</sup> 代表氫、羥基、氰基、或分別選擇地經取代之烷基、烷氧基或環烷基，

Q<sup>1</sup> 代表羥基、氫硫基、胺基、或分別選擇地經取代之烷氧基、烷硫基、烷胺基、烷氧胺基、二烷胺基或N-烷氧基-N-烷基-胺基，且

Z 代表分別選擇地經取代之烷基、烯基、炔基、環烷基、芳基或雜芳基。

再者，本發明業發現式(I)新穎芳基乙酸衍生物可由以下方法製得：

(a)將式(II)芳基二羥乙酸衍生物



其中

Ar、G、Q<sup>1</sup>、Q<sup>2</sup>及Z具前述定義，

與式(III)O-鹵代烷基-羥基胺



其中

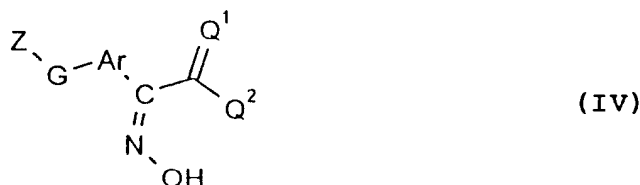
R 代表鹵代烷基，

或與式(III)化合物之鹵化氫加成物，

若適當於反應輔助劑存在下且若適當於稀釋劑存在下，進行反應，或

(b)將式(IV)2-羥亞胺基-芳基乙酸衍生物

## 五、發明說明(3)



其中

Ar、G、Q<sup>1</sup>、Q<sup>2</sup> 及 Z 具前述定義，

與式(V)鹵化烷



其中

R 代表鹵代烷基且

X 代表鹵素

若適當於反應輔助劑存在下且若適當於稀釋劑存在下，進行反應。

其中E 代表於2-位置含有鹵代烷氧基之1-烯-1, 1-二基之式(I)化合物可類似於方法(b)，由其中E 代表相對應之於2-位置含有羥基之1-烯-1, 1-二基之式(I)化合物，加以製得。

最後，本發明業發現式(I)新穎芳基乙酸衍生物具極強之殺真菌活性。

若適當，根據本發明之化合物可以各種可能之異構形式之混合物存在，特別是E 及Z 異構物。本發明同時請求E 及Z 異構物以及任何此等異構物之混合物。

本發明較佳地有關於其中各符號具下列定義之式(I)化合物：

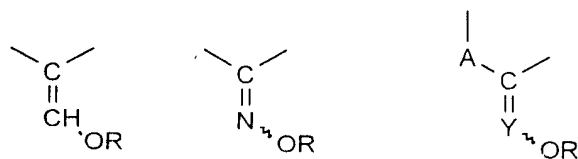
Ar 代表分別選擇地經取代之伸苯基或伸萘基，或代表具

## 五、發明說明(4)

5 或 6 個環成員之伸雜芳基，其中至少一個環成員代表氧、硫或氮且，若適當，一或二個其他環成員代表氮，可能之取代基較佳地選自包括下列組群：

鹵素、氰基、硝基、胺基、羥基、甲醯基、羧基、胺基甲醯基、硫代胺基甲醯基、分別為直鏈或分枝之烷基、烷氧基、烷硫基、烷基亞磺醯基或烷基磺醯基（其分別具 1 至 6 碳原子）、分別為直鏈或分枝之烯基、烯氧基或炔氧基（分別具 2 至 6 碳原子）、分別為直鏈或分枝之鹵代烷基、鹵代烷氧基、鹵代烷硫基、鹵代烷基亞磺醯基或鹵代烷基磺醯基（分別具 1 至 6 碳原子及 1 至 13 相同或不同鹵素原子）、分別為直鏈或分枝之鹵代烯基或鹵代烯氧基（分別具 2 至 6 碳原子及 1 至 13 相同或不同鹵素原子）、分別為直鏈或分枝之烷胺基、二烷胺基、烷基羰基、烷基羰氧基、烷氧基羰基、烷基磺醯氧基、羥亞胺基烷基或烷氧亞胺基烷基（分別於個別烷基部份具 1 至 6 碳原子）、分別為二價之伸烷基或烷二氧基，其分別具 1 至 6 碳原子且分別選擇地經相同或不同之選自包括鹵素及／或直鏈或分枝之具 1 至 4 碳原子之烷基及／或直鏈或分枝之具 1 至 4 碳原子及 1 至 9 相同或不同鹵素原子之鹵代烷基之取代基所單取代或多取代，

E 代表下列基群之一：



## 五、發明說明(5)

其中

R 代表具1至6碳原子之鹵代烷基，

A 代表氧、硫、亞胺基(NH)或烷亞胺基(N-烷基，烷基具1至4碳原子)，且

Y 代表氮或CH基，

G 代表氧、直接鍵或烷二基、烯二基或炔二基，其分別至多具4碳原子且分別選擇地經鹵素、羥基、 $C_1-C_4$ -烷基、 $C_1-C_4$ -鹵代烷基或 $C_3-C_6$ -環烷基所取代，或代表下列基群之一：

$-Q-CQ-$ ，  $-CQ-Q-$ ，  $-CH_2-Q-$ ，  $-Q-CH_2-$ ，  $-CQ-Q-CH_2-$ ，  
 $-CH_2-Q-CQ-$ ，  $-Q-CQ-CH_2-$ ，  $-Q-CQ-Q-CH_2-$ ，  $-N=N-$ ，  
 $-S(O)_n-$ ，  $-CH_2-S(O)_n-$ ，  $-CQ-$ ，  $-S(O)_n-CH_2-$ ，  
 $-C(R^1)=N-O-$ ，  $-C(R^1)=N-O-CH_2-$ ，  $-N(R^2)-$ ，  $-CQ-N(R^2)-$ ，  
 $-N(R^2)-CQ-$ ，  $-Q-CQ-N(R^2)-$ ，  $-N=C(R^1)-Q-CH_2-$ ，  
 $-CH_2-O-N=C(R^1)-$ ，  $-N(R^2)-CQ-Q-$ ，  $-CQ-N(R^2)-CQ-Q-$  或  
 $-N(R^2)-CQ-Q-CH_2-$ ，

其中

n 代表0、1或2，

Q 代表氧或硫，

$R^1$  代表氫、氟基，或烷基、烷氧基、烷硫基、烷胺基或二烷胺基，其分別於烷基具1至6碳原子且分別選擇地經鹵素、氟基或 $C_1-C_4$ -烷氧基所取代或代表具3至6碳原子之環烷基，其選擇地經鹵素、氟基、羧基、 $C_1-C_4$ -烷基或 $C_1-C_4$ -烷氧基-羰基所取代，且

## 五、發明說明(6)

R<sup>2</sup> 代表氫、羥基、氰基或具1至6碳原子之烷基，其選擇地經鹵素、氰基或C<sub>1</sub>-C<sub>4</sub>-烷氧基所取代，或代表具3至6碳原子之環烷基，其選擇地經鹵素、氰基、羧基、C<sub>1</sub>-C<sub>4</sub>-烷基或C<sub>1</sub>-C<sub>4</sub>-烷氧基-羰基所取代，

Q<sup>1</sup> 代表氧或硫，

Q<sup>2</sup> 代表羥基、氫硫基、胺基，或代表C<sub>1</sub>-C<sub>6</sub>-烷氧基、C<sub>1</sub>-C<sub>6</sub>-烷硫基、C<sub>1</sub>-C<sub>6</sub>-烷胺基、C<sub>1</sub>-C<sub>6</sub>-烷氧胺基、二-(C<sub>1</sub>-C<sub>4</sub>-烷基)-胺基或N-(C<sub>1</sub>-C<sub>4</sub>-烷氧基)-N-(C<sub>1</sub>-C<sub>4</sub>-烷基)-胺基，其分別選擇地經鹵素或C<sub>1</sub>-C<sub>4</sub>-烷氧基所取代，且

Z 代表具1至8碳原子之烷基，其選擇地經鹵素、氰基、羥基、胺基、C<sub>1</sub>-C<sub>4</sub>-烷氧基、C<sub>1</sub>-C<sub>4</sub>-烷硫基、C<sub>1</sub>-C<sub>4</sub>-烷基亞磺醯基或C<sub>1</sub>-C<sub>4</sub>-烷基磺醯基（其分別選擇地經鹵素所取代）所取代，或代表烯基或炔基，其分別至多具8碳原子且分別選擇地經鹵素所取代，或代表具3至6碳原子之環烷基，其選擇地經鹵素、氰基、羧基、苯基（其選擇地經鹵素、氰基、C<sub>1</sub>-C<sub>4</sub>-烷基、C<sub>1</sub>-C<sub>4</sub>-鹵代烷基、C<sub>1</sub>-C<sub>4</sub>-烷氧基或C<sub>1</sub>-C<sub>4</sub>-鹵代烷氧基所取代）、C<sub>1</sub>-C<sub>4</sub>-烷基或C<sub>1</sub>-C<sub>4</sub>-烷氧基-羰基所取代，或代表分別選擇地經取代之苯基、萘基或具5或6環成員之雜芳基（其中至少一個環成員代表氧、硫或氮，且，若適當，一或二個其他環成員代表氮），可能之取代基較佳地係選自下

## 五、發明說明(7)

## 列基群：

鹵素、氰基、硝基、胺基、羥基、甲醯基、羧基、胺基甲醯基、硫代胺基甲醯基、分別為直鏈或分枝之烷基、烷氧基、烷硫基、烷基亞磺基或烷基磺基（其分別具1至6碳原子）、分別為直鏈或分枝之烯基或烯氧基（其分別具2至6碳原子）、分別為直鏈或分枝之鹵代烷基、鹵代烷氧基、鹵代烷硫基、鹵代烷基亞磺基或鹵代烷基磺基（其分別具1至6碳原子及1至13相同或不同鹵素原子）、分別為直鏈或分枝之鹵代烯基或鹵代烯氧基（其分別具2至6碳原子及1至13相同或不同鹵素原子）、分別為直鏈或分枝之烷胺基、二烷胺基、烷基羰基、烷基羰氧基、烷氧基羰基、烷基磺基氧基、羥亞胺基烷基或烷氧亞胺基烷基（其分別於個別烷基部份具1至6碳原子）、分別為二價之仲烷基或烷二氧基（其分別具1至6碳原子且分別選擇地經相同或不同之選自包括鹵素及／或直鏈或分枝之具1至4碳原子之烷基及／或直鏈或分枝之具1至4碳原子及1至9相同或不同鹵素原子之鹵代烷基之取代基所單取代或多取代）、具3至6碳原子之環烷基、選擇地經取代之雜環基或雜環基-甲基（其分別具3至7環成員，其中1至3個環成員為相同或不同之雜原子，特別是氮、氧及／或硫）、及苯基、苯氧基、苯氧基甲基、苄基、苄氧基、苄硫基、苄乙基或苄乙氧基（其分別選擇地於苯基部份經相

## 五、發明說明(8)

同或不同之選自包括鹵素、氟基及／或直鏈或分枝之具1至4碳原子之烷基及／或直鏈或分枝之具1至4碳原子及1至9相同或不同鹵素原子之鹵代烷基及／或直鏈或分枝之具1至4碳原子之烷氧基及／或直鏈或分枝之具1至4碳原子及1至9相同或不同鹵素原子之鹵代烷氧基之取代基所單取代或多取代)。

於前述定義中之飽和或不飽和烴鏈(如烷基、烷二基、烯基或炔基)係分別為直鏈或分枝的，且當與雜原子連接(如烷氧基、烷硫基或烷胺基)時亦然。

鹵素一般代表氟、氯、溴或碘，較佳為氯、氯或溴，特別是氯或氯。

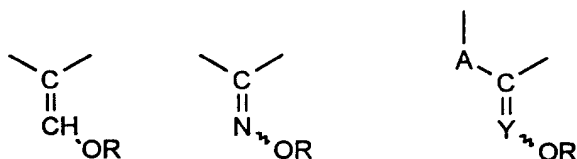
特別地，本發明係有關於其中各符號具以下定義之式  
(I)化合物：

Ar 代表分別選擇地經取代之鄰位-、間位-或對位-伸苯基，或代表呋喃二基、噻吩二基、吡咯二基、吡唑二基、三唑二基、噁唑二基、異噁唑二基、噻唑二基、異噻唑二基、噁二唑二基、噻二唑二基、吡啶二基(特別是吡啶-2, 3-二基)、嘧啶二基、噻嗪二基、吡嗪二基、1, 3, 4-三嗪二基或1, 2, 3-三嗪二基，可能之取代基特別地係選自下列系列者：

氟、氯、氟基、甲基、乙基、三氟甲基、甲氧基、乙氧基、甲硫基、甲基亞磺基或甲基磺基，

E 代表以下基群之一

## 五、發明說明(9)



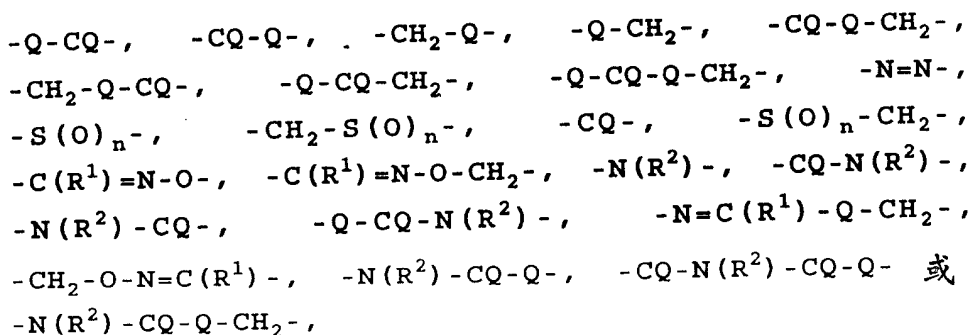
其中

R 代表甲基、乙基、正-或異-丙基或正-、異-、第二-或第三-丁基，其分別經氟及／或氯所取代，

A 代表氧、硫、亞胺基(NH)或甲基亞胺基(N-甲基)，且

Y 代表氮或CH基，

G 代表氧、直接鍵或伸甲基、伸乙基(乙烷-1, 2-二基)、乙烯-1, 2-二基或乙炔-1, 2-二基，其分別選擇地經氟、氯、羥基、甲基、乙基、正-或異-丙基、三氟甲基、環丙基、環丁基、環戊基或環己基所取代，或代表以下基群之一：



其中

n 代表0、1或2，

Q 代表氧或硫，

R<sup>1</sup> 代表氫、氟基或甲基、乙基、正-或異-丙基、正-

## 五、發明說明(10)

、異-或第二-丁基、甲氧基、乙氧基、丙氧基、丁氧基、甲硫基、乙硫基、丙硫基、丁硫基、甲胺基、乙胺基、丙胺基、二甲胺基或二乙胺基，其分別選擇地經氟、氯、氰基、甲氧基或乙氧基所取代，或代表環丙基、環丁基、環戊基或環己基，其分別選擇地經氟、氯、氰基、羧基、甲基、乙基、正-或異-丙基、甲氧基羰基或乙氧基羰基所取代，且

R<sup>2</sup> 代表氫、羥基、氰基、或甲基、乙基、正-或異-丙基或正-、異-、第二或第三-丁基，其分別選擇地經氟、氯、氰基、甲氧基或乙氧基所取代，或代表環丙基、環丁基、環戊基或環己基，其分別選擇地經氟、氯、氰基、羧基、甲基、乙基、正-或異-丙基、甲氧基羰基或乙氧基羰基所取代，

Q<sup>1</sup> 代表氧或硫，

Q<sup>2</sup> 代表羥基、氫硫基、胺基，或代表甲氧基、乙氧基、正-或異-丙氧基、正-、異-、第二-或第三-丁氧基、甲硫基、乙硫基、正-或異-丙硫基、正-、異-、第二-或第三-丁硫基、甲胺基、乙胺基、正-或異-丙胺基、正-、異-、第二-或第三-丁胺基、甲氧胺基、乙氧胺基、正-或異-丙氧胺基、正-、異-、第二-或第三-丁氧胺基、二甲胺基、二乙胺基、二丙胺基、二丁胺基或N-甲氧基-N-甲基-胺基，其分別選擇地經氟、氯

## 五、發明說明 ( 11 )

、甲氧基或乙氧基所取代，且

- Z 代表甲基、乙基、正-或異-丙基或正-、異-、第二-或第三-丁基，其分別選擇地經氟、氯、溴、氰基、羥基、胺基、甲氧基、乙氧基、甲硫基、乙硫基、甲基亞磺醯基、乙基亞磺醯基、甲基磺醯基或乙基磺醯基（分別選擇地經氟及／或氯所取代），或代表丙烯基、丁烯基、1-甲基-丙烯基、丙炔基或1-甲基-丙炔基，其分別選擇地經氟、氯或溴所取代，或代表環丙基、環丁基、環戊基或環己基，其分別選擇地經氟、氯、溴、氰基、羧基、苯基（其選擇地經氟、氯、溴、氰基、甲基、乙基、正-或異-丙基、正-、異-、第二-或第三-丁基、三氟甲基、甲氧基、乙氧基、正-或異-丙氧基、二氟甲氧基或三氟甲氧基所取代）、甲基、乙基、正-或異-丙基、甲氧基-羰基或乙氧基-羰基所取代，或代表分別選擇地經取代之苯基、萘基、呋喃基、噻吩基、噁唑基、異噁唑基、噻唑基、異噻唑基、噁二唑基、噻二唑基、吡啶基、嘧啶基、噻嗪基、吡嗪基或三嗪基，可能之取代基較佳為選自下列系列者：

氟、氯、溴、氰基、硝基、胺基、羥基、甲醯基、羧基、胺基甲醯基、硫代胺基甲醯基、甲基、乙基、正-或異-丙基、正-、異-、第二或第三-丁基、甲氧基、乙氧基、正-或異-丙氧基、甲硫基、乙硫基、正-或異-丙硫基、甲基亞磺醯基、乙基亞磺醯基、甲基磺

## 五、發明說明(12)

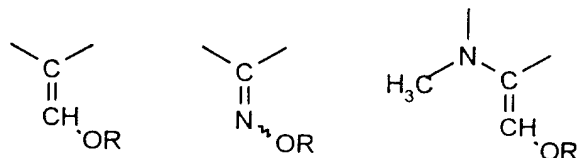
鹽基或乙基磺鹽基、三氟甲基、二氟甲氧基、三氟甲氧基、二氟甲硫基、三氟甲硫基、三氟甲基亞磺鹽基或三氟甲基磺鹽基、甲胺基、乙胺基、正-或異-丙胺基、二甲胺基、二乙胺基、乙鹽基、丙鹽基、乙鹽氧基、甲氧羰基、乙氧羰基、甲基磺鹽氧基、乙基磺鹽氧基、羥亞胺基甲基、羥亞胺基乙基、甲氧亞胺基甲基、乙氧亞胺基甲基、甲氧亞胺基乙基或乙氧亞胺基乙基；三仲甲基(丙烷-1, 3-二基)、甲二氧基或乙二氧基，其分別選擇地經相同或不同之選自包括氟、氯、甲基、乙基或正-或異-丙基之取代基所單取代或多取代；或環丙基、環丁基、環戊基或環己基；或苯基、苯氧基、苄基、苄氧基、苄硫基、苄氧甲基或呋喃基、噻吩基、噁唑基、異噁唑基、噻唑基、異噻唑基、噁二唑基、噻二唑基、吡啶基、嘧啶基、噻嗪基、吡嗪基或三嗪基，其分別選擇地於苯基部份或於雜芳基部份經相同或不同之選自包括氟、氯、溴、氰基、甲基、乙基、正-或異-丙基、正-、異-、第二-或第三-丁基、三氟甲基、甲氧基、乙氧基、正-或異-丙氧基、二氟甲氧基或三氟甲氧基之取代基所單取代或多取代。

特別佳之根據本發明化合物為其中各符號具下列定義之式(I)化合物：

Ar 代表鄰位-伸苯基、吡啶-2, 3-二基或噻吩-2, 3-二基，

## 五、發明說明(13)

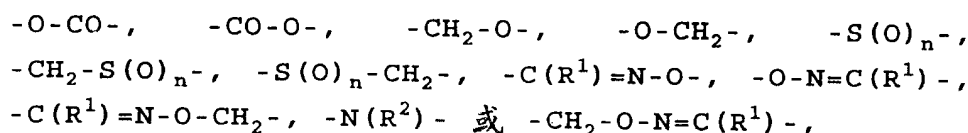
E 代表以下基群之一



其中

R 代表氟甲基或二氟甲基，

G 代表氧、直接鍵、伸甲基、乙烯-1, 2-二基或以下基群之一



其中

n 代表0、1或2，

R<sup>1</sup> 代表氫、甲基或乙基，且R<sup>2</sup> 代表氫、甲基或乙基，Q<sup>1</sup> 代表氧，Q<sup>2</sup> 代表甲氧基、乙氧基、甲胺基或乙胺基，且

Z 代表分別選擇地經取代之苯基、噻唑基、噻二唑基、吡啶基、嘧啶基、噻嗪基、吡嗪基或三嗪基，可能之取代基較佳地為選自下列系列者：

氟、氯、溴、氰基、甲基、乙基、正-或異-丙基、正-、異-、第二-或第三-丁基、甲氧基、乙氧基、正-或異-丙氧基、甲硫基、乙硫基、正-或異-丙硫基、

## 五、發明說明(14)

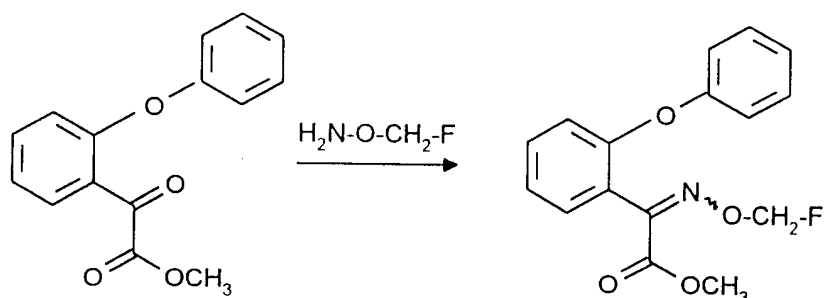
甲基亞磺醯基、乙基亞磺醯基、甲基磺醯基或乙基磺醯基、三氟甲基、二氟甲氧基、三氟甲氧基、二氟甲硫基、三氟甲硫基、三氟甲基亞磺醯基或三氟甲基磺醯基、甲氧羰基、乙氧羰基、甲氧亞胺基甲基、乙氧亞胺基甲基、甲氧亞胺基乙基、乙氧亞胺基乙基、或甲二氧基或乙二氧基，其分別選擇地經相同或不同之選自包括氟、氯、甲基或乙基之取代基所單或多取代，或苯基、苯氧基、苄基、苄氧基、苄硫基或苯氧甲基，其分別選擇地於苯基部份經相同或不同之選自包括氟、氯、溴、氟基、甲基、乙基、正-或異-丙基、正-、異-、第二-或第三-丁基、三氟甲基、甲氧基、乙氧基、正-或異-丙氧基、二氟甲氧基或三氟甲氧基之取代基所單或多取代，及呋喃基、噻吩基、吡啶基或嘧啶基，其分別選擇地經相同或不同之選自包括氟、氯、溴、甲基、甲氧基及三氟甲基之取代基所單或多取代。

前述各基之一般或較佳定義同時適用於式(I)最終產物及製備中分別所需之起始物質或中間體。

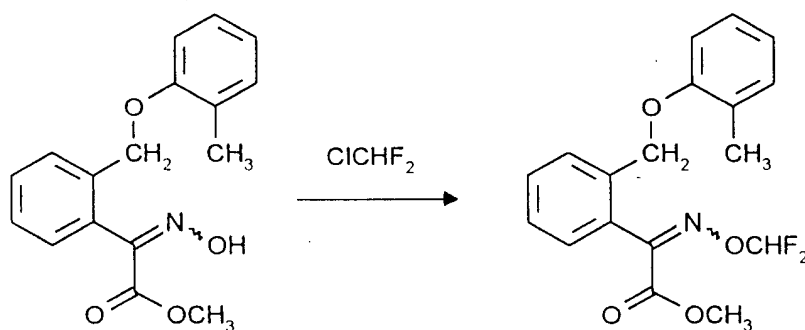
這些基之定義可依所需彼此相互結合，亦即可在前述較佳化合物之範圍間相互結合。

若，例如，使用 $\alpha$ -(2-苯氧基-苯基)-二羥乙酸甲酯及0-氟甲基-羥胺作為起始物質，則根據本發明方法(a)之反應過程可以下式表示：

## 五、發明說明 (15)



若，例如，使用  $\alpha$ -羥亞胺基-2-(2-甲基苯氧基)-甲基)-苯基乙酸甲酯及氯二氟甲烷作為起始物質，則根據本發明方法(b)之反應過程可以下式表示：



式(II)提供於根據本發明用於製備式(I)化合物之方法(a)中用作為起始物質之芳基二羥乙酸衍生物之一般定義。於式(II)中，Ar、G、Q<sup>1</sup>、Q<sup>2</sup>及Z較佳地，或特別地，具前於式(I)化合物之描述中對Ar、G、Q<sup>1</sup>、Q<sup>2</sup>及Z所業提及之較佳，或特別佳，定義。

式(II)起始物質係已知及／或可經本身已知之方法加以製備(詳EP-A 253213)。

式(III)提供於根據本發明方法(a)中另用作起始物質之0-鹵代烷基-羥胺之一般定義。於式(III)中，R較佳地，

## 五、發明說明(16)

或特別地，具前於式(I)化合物之描述中對R所業提及之較佳，或特別佳，定義。

式(III)起始物質係已知及／或可經本身已知之方法加以製備(詳EP-A 333154)。

式(IV)提供於根據本發明用以製備式(I)化合物之方法(b)中用作起始物質之2-羥亞胺基-芳基乙酸衍生物之一般定義。於式(IV)中，Ar、G、Q<sup>1</sup>、Q<sup>2</sup>及Z較佳地，或特別地，具前於式(I)化合物之描述中對Ar、G、Q<sup>1</sup>、Q<sup>2</sup>及Z所業提及之較佳，或特別佳，定義。

式(V)提供於根據本發明方法(b)中另用作起始物質之鹵代烷之一般定義。於式(V)中，R較佳地，或特別地，具前於式(I)化合物之描述中對R所業提及之較佳，或特別佳，定義；X較佳地代表氟、氯、溴或碘，特別是氯或溴。

式(V)起始物質係已知及／或可經本身已知之方法加以製備(詳DE 3906273)。

用以進行根據本發明方法(a)及(b)之稀釋劑為習用有機溶劑，其特別地包括：脂族、環脂族或芳族，選擇地經鹵化烴，例如揮發油、苯、甲苯、二甲苯、氯苯、二氯苯、石油醚、己烷、環己烷、二氯甲烷、氯仿、四氯甲烷；醚類，如乙醚、二異丙醚、二噁烷、四氫呋喃或乙二醇二甲醚或乙二醇二乙醚；酮類，如丙酮、丁酮或甲基異丁基酮；腈類，如乙腈、丙腈或丁腈；鹽胺類，如N，N-二甲基甲鹽胺、N，N-二甲基乙鹽胺、N-甲基-甲鹽替苯胺、N-甲

## 五、發明說明 ( 17 )

基吡咯烷酮或六甲基磷酸三鹽胺；酯類，如乙酸甲酯或乙酸乙酯；亞砒類，如二甲亞砒；醇類，如甲醇、乙醇、正-或異-丙醇、乙二醇單甲基醚、乙二醇單乙基醚、二乙二醇單甲基醚或二乙二醇單乙基醚。

根據本發明方法(a)及(b)較佳地係於適當反應輔助劑存在下加以進行。適當反應輔助劑為所有習用無機或有機鹼。這些輔助劑包括，例如：鹼土金屬或鹼金屬之氫化物、氫氧化物、胺基化物、醇鹽、乙酸鹽、碳酸鹽或碳酸氫鹽，如氫化鈉、胺基化鈉、甲醇鈉、乙醇鈉、第三丁醇鉀、氫氧化鈉、氫氧化鉀、氫氧化銨、乙酸鈉、乙酸鉀、乙酸鈣、乙酸銨、碳酸鈉、碳酸鉀、碳酸氫鉀、碳酸氫鈉或碳酸銨，以及鹼性有機氮化合物，如三甲胺、三乙胺、三丁胺、N，N-二甲基苯胺、吡啶、N-甲基吡啶、N，N-二甲基基吡啶、二氮雜二環辛烷(DABCO)、二氮雜二環壬烯(DBN)或二氮雜二環十一碳烯(DBU)。

其他可用之反應輔助劑，若適當，有反應加速劑，如碘化鉀或碘化鈉。

當進行根據本發明方法(a)或(b)時，反應溫度可於相當大範圍內變動。一般，該等方法係於-20℃至+100℃間，較佳於0℃至80℃間之溫度下加以進行。

根據本發明方法(a)及(b)一般係於大氣壓力下加以進行。然，亦可於提高或減低之壓力下（一般於0.1巴至10巴間）加以進行。

於進行根據本發明方法(a)及(b)時，一般分別以大約相

## 五、發明說明 ( 18 )

等莫耳量使用所需起始物質。然，分別亦可使用較大過量之二反應成份之一。一般，該等反應係於適當稀釋劑中，於反應輔助劑存在下，加以進行，且反應混合物分別於所需溫度下攪拌數小時。於根據本發明此等方法中之完成處理分別係依習用方法加以進行（詳製備實例）。

根據本發明活性化合物具強力之殺微生物活性且於實際上可用於對抗不欲之微生物。本活性化合物適合用作保護作物劑，特別是殺真菌劑。

在植物保護方面，可使用本殺真菌劑以對抗根腫菌綱 (Plasmodiophoromycetes)、卵菌綱 (Oomycetes)、壺菌綱 (Chytridiomycetes)、接合菌綱 (Zygomycetes)、子囊菌綱 (Ascomycetes)、擔子菌綱 (Basidiomycetes)、及半知菌綱 (Deuteromycetes)。

可提及一些屬於上列菌屬之真菌性疾病之致病菌作為例子，但非加以設限：

腐霉屬 (Pythium species)，如終極腐霉 (Pythium ultimum)；

疫霉屬 (Phytophthora species)，如致病疫霉 (Phytophthora infestans)；

假霜霉屬 (Pseudoperonospora species)，如葎草假霜霉 (Pseudoperonospora humuli) 或古巴假霜霉 (Pseudoperonospora cubense)；

單軸霉屬 (Plasmopara species)，如葡萄生單軸霉 (Plasmopara viticola)；

## 五、發明說明 ( 19 )

霜黴屬(*Peronospora species*)；如豌豆霜黴(*Peronospora pisi*)或莖苔霜黴(*Peronospora brassicae*)；

白粉菌屬(*Erysiphe species*)，如禾白粉菌(*Erysiphe graminis*)；

單絲殼屬(*Sphaerotheca species*)，如蒼耳單絲殼(*Sphaerotheca fuliginea*)；

叉絲單囊殼屬(*Podosphaera species*)，如白叉絲單囊殼(*Podosphaera leucotricha*)；

黑星菌屬(*Venturia species*)，如蘋果黑星菌(*Venturia inaequalis*)；

核腔菌屬(*Pyrenophora species*)，如圓核腔菌(*Pyrenophora teres*)或麥類核腔菌(*Pyrenophora graminea*) (分生孢子型：*Drechslera*, syn: 長蠕孢屬(*Helminthosporium*))；

旋孢腔菌屬(*Cochliobolus species*)，如禾旋孢腔菌(*Cochliobolus stativus*) (分生孢子型：*Drechslera*, syn: 長蠕孢屬(*Helminthosporium*))；

單胞銹菌屬(*Uromyces species*)，如疣豆單胞銹菌(*Uromyces appendiculatus*)；

柄銹菌屬(*Puccinia species*)，如隱匿柄銹菌(*Puccinia recondita*)；

腥星粉菌屬(*Tilletia species*)，如小麥網腥黑粉菌(*Tilletia caries*)；

黑粉菌屬(*Ustilago species*)，如裸黑粉菌(*Ustilago*

## 五、發明說明 ( 20 )

nuda)或燕麥散黑粉菌(*Ustilago avenae*);  
薄膜革菌屬(*Pellicularia species*),如佐佐木薄膜革菌(*Pellicularia sasakii*);  
Pyricularia屬,如稻熱病菌(*Pyricularia oryzae*);  
鐮孢屬(*Fusarium species*);如大刀鐮孢(*Fusarium culmorum*);  
葡萄孢屬(*Botrytis species*),如灰葡萄孢(*Botrytis cinerea*);  
殼針孢屬(*Septoria species*),穎枯殼針孢(*Septoria nodorum*);  
小球腔菌屬(*Leptosphaeria species*),如穎枯小球腔菌(*Leptosphaeria nodorum*);  
尾孢屬(*Cercospora species*),如變灰尾孢(*Cercospora canescens*);  
鏈格孢屬(*Alternaria species*),如蕓苔鏈格孢(*Alternaria brassicae*)及假小尾孢屬(*Pseudocercospora species*),如*Pseudocercospora herpotrichoides*。

本活性化合物於用以抵抗植物疾病所需濃度下對植物之良好忍受性使其得處理植物之地上部份,營養繁殖用根莖和種子,以及土壤。

於此方面,根據本發明之活性化合物可特別成功地用於對抗水果及蔬菜生長中之疾病,如對抗叉絲單囊殼屬(如發生於蘋果)、單絲殼屬(如發生於黃瓜)及黑星菌屬(如

## 五、發明說明(21)

發生於蘋果)；以及對抗白粉菌屬(如發生於大麥)、核腔菌屬(如發生於大麥)、旋孢腔菌屬(如發生於大麥及小麥)及殼針孢屬(如發生於小麥)；及用於對抗水稻疾病，如對抗Pyricularia屬。

視其特定物理及／或化學性質而定，本活性化合物可被轉變成習用配方，例如溶液、乳濁液、懸浮液、粉末、泡沫、糊劑、粒劑、濕劑、於聚合物質中及於用於種子之塗覆組成物中之極細膠囊、以及ULV冷-及溫霧配方。

這些配方係依已知方式加以製備，例如混合活性化合物與填充劑，即液體溶劑、壓力下之液化氣體、及／或固體載劑，選擇地使用界面活性劑，即乳化劑及／或分散劑，及／或泡沫形成劑。當使用水作為填充劑時，亦可使用，例如，有機溶劑作為輔助溶劑。適合之液體溶劑主要有：芳族類(如二甲苯、甲苯或烷基萘)、氯化芳族類或氯化脂族烴(如氯苯、氯乙烯或二氯甲烷)、脂族烴(如環己烷或石蠟，如礦物油餾份)、醇類(如丁醇或乙二醇)以及其醚與酯類、酮類(如丙酮、甲乙酮、甲基異丁基酮或環己酮)、強極性溶劑(如二甲基甲醯胺或二甲基亞砷)、以及水。液化氣體填充劑或載劑意指於常溫常壓下為氣態之液體，例如氣溶膠推進劑，如鹵化烴以及丁烷、丙烷、氮及二氧化碳。適當之固體載劑有：例如地表天然礦物，如高嶺土、黏土、滑石、白堊、石英、美國活性白土、蒙特土或矽藻土，及地表合成礦物，如高度分散之矽酸、氧化鋁及矽酸鹽。適當之用於粒劑之固體載劑有：例如破碎及分割之天

## 五、發明說明(22)

然巖，如方解石、大理石、浮石、海泡石及白雲石，以及無機及有機粉之合成顆粒，及有機物質如鋸屑、椰子殼、玉米穗軸及菸草莖之顆粒。適當之乳化及／或泡沫形成劑有：例如非離子性及陰離子性乳化劑，如聚氧化乙烯-脂肪酸酯，聚氧化乙烯脂肪醇醚，如烷基芳基聚乙二醇醚、烷基磺酸酯、烷基硫酸酯、芳基磺酸酯、以及白朮水解產物。適當之分散劑有：例如木質素亞硫酸鹽廢液及甲基纖維素。

可於配方中使用黏著劑，如羧甲基纖維素及天然與合成之粉狀、粒狀或格子狀聚合物，如阿拉伯膠、聚乙醇及聚乙酸乙酯，以及天然磷脂，如腦磷脂及卵磷脂，及合成磷脂。其他添加劑可為無機及植物油。

可使用著色劑，例如無機色料，如氧化鐵、氧化鈦及普魯士藍，及有機染料，如茜素染料、偶氮染料及金屬酞花青染料，及微量營養素如鐵、錳、硼、銅、鋅、鉬及鋅鹽。

一般，配方含0.1至95重量百分比活性化合物，較佳為0.5至90%。

根據本發明活性化合物可以與其他已知活性化合物，如殺真菌劑、殺昆蟲劑、殺蟎劑及除草劑，之混合物存在於配方中，以及可存在於與肥料及生長調節劑之混合物中。

本活性化合物可直接單獨地或以其配方型式或製自這些配方之使用型式，如立即用溶液、懸浮液、可濕粉末、糊劑、可溶粉末、屑末及粒劑，加以使用。它們係依習用方

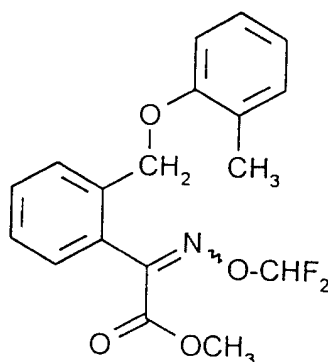
## 五、發明說明 ( 23 )

式，例如經水灑，噴灑，噴霧，撒佈，粉撒，泡沫施加，  
 掠拭等，加以使用。亦可經超低體積方法施加本活性化合物  
 或將本活性化合物配方或活性化合物本身注入土壤中。  
 亦可處理植物之種子。

於處理植物體部份時，於使用型式中活性化合物濃度可  
 於相當大範圍內變動。一般，係介於1 至0.0001重量%，  
 較佳為0.5至0.001重量%間。

於處理種子時，一般每公斤種子需要0.001至50克，較  
 佳為0.01至10克之活性化合物量。

於處理土壤時，於作用地區需0.00001至0.1重量%，較  
 佳為0.0001至0.02重量%，之活性化合物濃度。

製備實例：實例 1：

## (方法(b))

將3.0克 ( 10毫莫耳 ) E/Z- $\alpha$ -羥亞胺基 - ( 2- ( 2-甲基  
 苯氧基 ) - 甲基 ) - 苯基乙酸甲酯溶於30毫升二甲亞胂中，  
 之後加入2.76克 ( 20毫莫耳 ) 碳酸鉀及0.5克碘化鉀。於

## 五、發明說明(24)

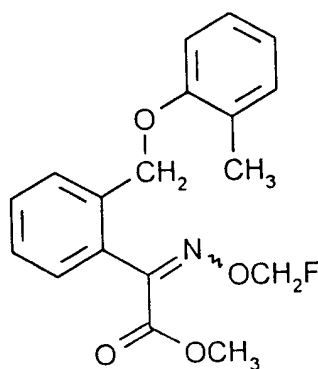
業攪拌懸浮液20分鐘後，以氯二氟甲烷(Frigen 22)加以飽和並於Frigen 22氣體中，在20℃下，攪拌4天。

為收集，將混合物傾入大約二倍體積之冰水中，之後以第三丁基甲基醚加以萃取。使用硫酸鈉乾燥有機相並加以過濾。濃縮濾液，之後將殘留物經管柱層析(矽膠，乙酸乙酯/環己烷，1:5體積比)加以純化。

得1.05克(理論值之30%) E/Z- $\alpha$ -二氟甲氧亞胺基-(2-(2-甲基苯氧基)-甲基)-苯基乙酸甲酯，為油狀。

$^1\text{H NMR}$  ( $\text{D}_6$ -二甲亞砜,  $\delta$ ): 4.98 ppm (-O-CH<sub>2</sub>-)。

## 實例 2



## (方法(b))

將5.98克(20毫莫耳) E/Z- $\alpha$ -羥亞胺基-(2-(2-甲基苯氧基)-甲基)-苯基乙酸甲酯溶於30毫升二甲亞砜中，之後加入5.52克(40毫莫耳)碳酸鉀及0.5克碘化鉀。於業在20℃下攪拌混合物20分鐘後，將其冷卻至10℃，之後逐滴加入一於5毫升預冷二甲基甲醯胺中含2.71克(24毫莫耳)溴氟甲烷之溶液中，然後於20℃下攪拌反應混合物

## 五、發明說明(25)

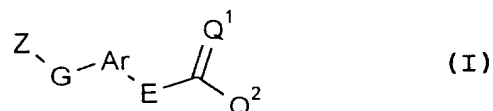
過夜。

為收集，將混合物傾入大約二倍體積之冰水中，之後使用乙醚萃取三次。將合併之有機相使用硫酸鈉加以乾燥並過濾之。濃縮濾液，並將殘留物經管柱層析（矽膠，乙酸乙酯／環己烷，1：5體積比）加以純化。

所得第一餾份為1.8克（理論值之27%）Z- $\alpha$ -氟甲氧亞胺基-（2-（2-甲基苯氧基）-甲基）-苯基乙酸甲酯，為油狀 [ $^1\text{H}$  NMR ( $\text{D}_6$ -二甲亞砜， $\delta$ ): 5.23ppm ( $-\text{O}-\text{CH}_2-\text{F}$ ) 5.76 ppm ( $-\text{CH}_2-\text{F}$ )]；

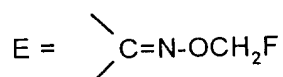
所得第二餾份為2.6克（理論值之39%）E- $\alpha$ -氟甲氧亞胺基-（2-（2-甲基苯氧基）-甲基）-苯基乙酸甲酯，為熔點108°C之結晶產物。

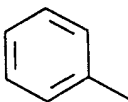
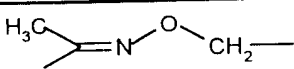
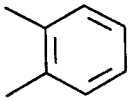
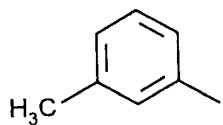
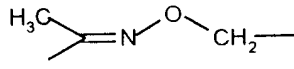
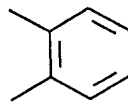
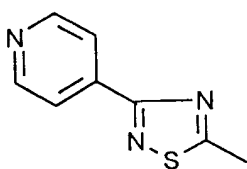
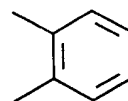
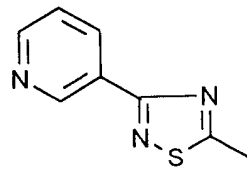
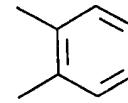
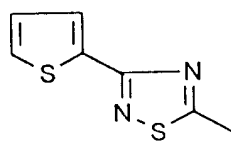
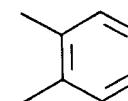
其他可類似於實例1或2並依本發明製備方法之一般描述而製得之式(I)化合物之例係以下諸表中所列者。



$^1\text{H}$  NMR光譜係以四甲基矽烷為內部標準以 $\text{CDCl}_3$ 加以記錄。所給數據原則上係以 $\delta$ 值表示之化學位移。

## 五、發明說明 ( 26 )

表 1：式 ( I ) 化合物之實例，其中分別地  $Q^1=0$ ， $Q^2=OCH_3$ 

| 實例號 | Z                                                                                   | G                                                                                   | AR                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 3   |   |    |    |      |
| 4   |  |  |  |      |
| 5   |  | o                                                                                   |  |      |
| 6   |  | o                                                                                   |  |      |
| 7   |  | o                                                                                   |  |      |

## 五、發明說明 ( )

專利申請案第83110791號

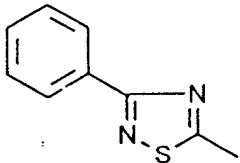
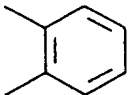
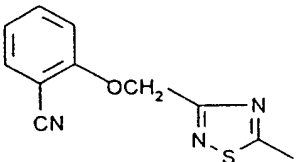
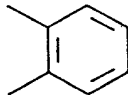
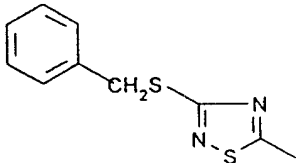
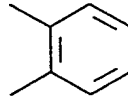
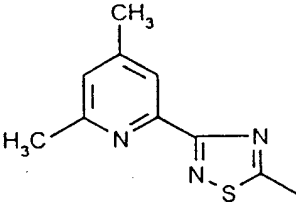
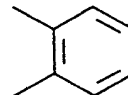
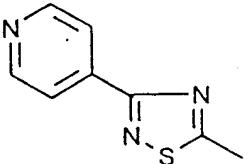
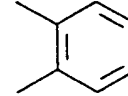
ROC Patent Appln. No. 83110791

補充之物化數據資料和實例化合物中文本-附件一

Supplemental physico-chemical data and an  
additional example compound in Chinese-Encl. I

(民國 86 年 6 月 11 日送呈)

(Submitted on June 11, 1997)

| 實例號 | Z                                                                                   | G | Ar                                                                                    | 物理數據                                                   |
|-----|-------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------|--------------------------------------------------------|
| 8   |    | o |    | <sup>1</sup> H-NMR (CDL <sub>3</sub> )<br>5.65 (d, 2H) |
| 9   |   | o |    |                                                        |
| 10  |  | o |  |                                                        |
| 11  |  | o |  |                                                        |
| 12  |  | o |  |                                                        |

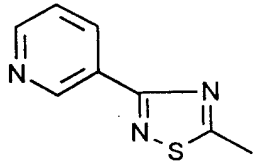
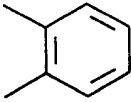
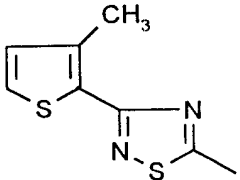
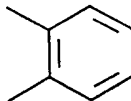
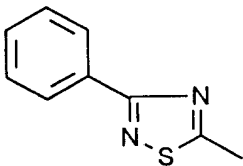
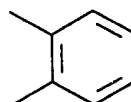
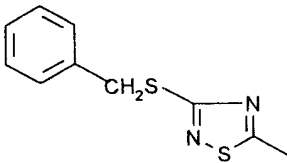
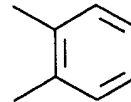
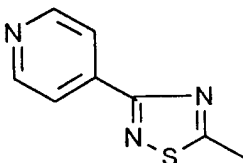
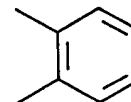
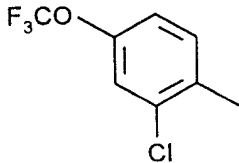
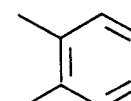
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

頁

# 五、發明說明 ( 28 )

| 實例號 | Z                                                                                   | G                               | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------|------|
| 13  |    | O                               |    |      |
| 14  |    | O                               |    |      |
| 15  |   | S                               |   |      |
| 16  |  | S                               |  |      |
| 17  |  | SO <sub>2</sub> CH <sub>2</sub> |  |      |
| 18  |  | -OCH <sub>2</sub> -             |  |      |

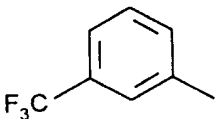
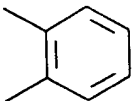
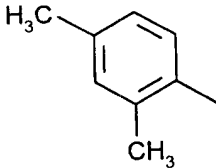
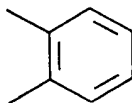
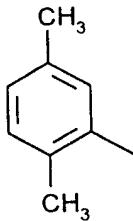
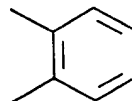
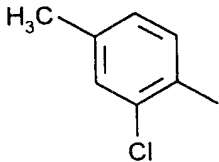
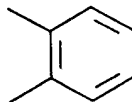
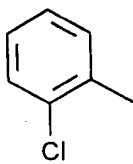
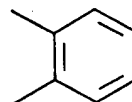
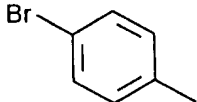
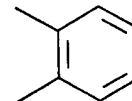
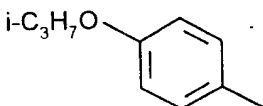
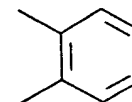
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 29 )

| 實例號 | Z                                                                                   | G                   | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------|------|
| 19  |    | -OCH <sub>2</sub> - |    |      |
| 20  |    | -OCH <sub>2</sub> - |    |      |
| 21  |   | -OCH <sub>2</sub> - |    |      |
| 22  |  | -OCH <sub>2</sub> - |  |      |
| 23  |  | -OCH <sub>2</sub> - |  |      |
| 24  |  | -OCH <sub>2</sub> - |  |      |
| 25  |  | -OCH <sub>2</sub> - |  |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 30 )

| 實例號 | Z                              | G                           | Ar                          | 物理數據 |
|-----|--------------------------------|-----------------------------|-----------------------------|------|
| 26  | <chem>CH2=CH-CH2O-C6H4-</chem> | <chem>-OCH2-</chem>         | <chem>C1=CC=C(C)C=C1</chem> |      |
| 27  | <chem>Cl-C6H4-</chem>          | <chem>-OCH2-</chem>         | <chem>C1=CC=C(C)C=C1</chem> |      |
| 28  | <chem>Cl-C6H3(Cl)-</chem>      | <chem>-OCH2-</chem>         | <chem>C1=CC=C(C)C=C1</chem> |      |
| 29  | <chem>H3C-C6H4-</chem>         | <chem>O</chem>              | <chem>C1=CC=C(C)C=C1</chem> |      |
| 30  | <chem>C1=CC=CC=C1</chem>       | <chem>O</chem>              | <chem>C1=CC=C(C)C=N1</chem> |      |
| 31  | <chem>C1=CC=CC=C1</chem>       | <chem>O</chem>              | <chem>C1=CC=C(C)S1</chem>   |      |
| 32  | <chem>C1=CC=CC=C1</chem>       | <chem>NC(=C)N-O-CH2-</chem> | <chem>C1=CC=C(C)C=C1</chem> |      |
| 33  | <chem>C1=CC=C(C)C=C1</chem>    | <chem>NC(=C)N-O-CH2-</chem> | <chem>C1=CC=C(C)C=C1</chem> |      |
| 34  | <chem>H3C-C6H3(CH3)-</chem>    | <chem>NC(=C)N-O-CH2-</chem> | <chem>C1=CC=C(C)C=C1</chem> |      |

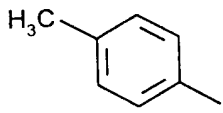
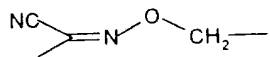
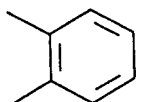
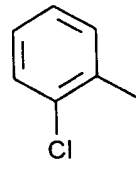
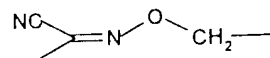
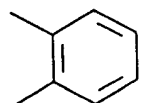
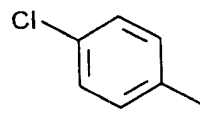
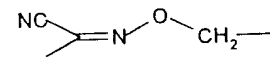
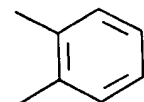
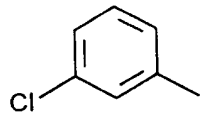
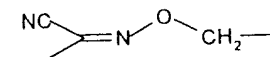
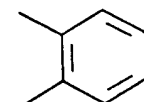
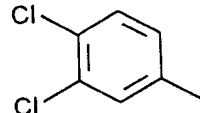
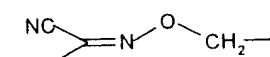
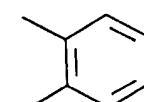
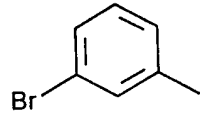
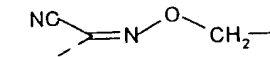
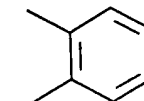
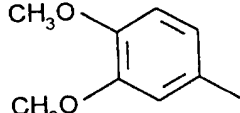
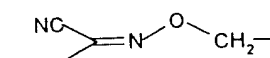
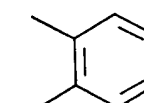
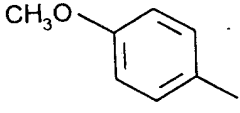
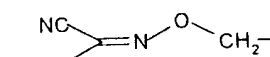
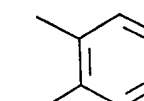
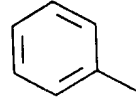
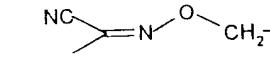
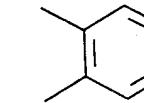
(請先閱讀背面之注意事項再填寫本頁)

裝

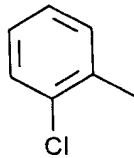
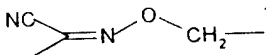
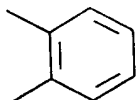
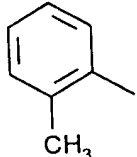
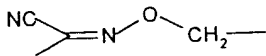
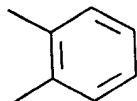
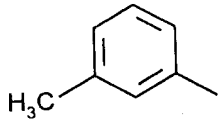
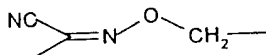
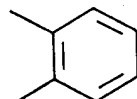
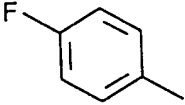
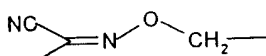
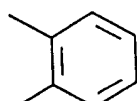
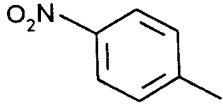
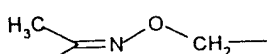
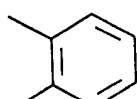
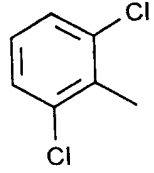
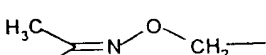
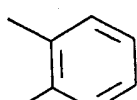
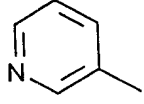
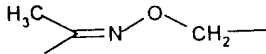
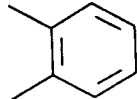
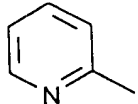
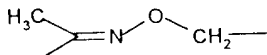
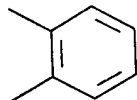
訂

線

## 五、發明說明 ( 31 )

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 35  |    |    |    |      |
| 36  |    |    |    |      |
| 37  |   |    |   |      |
| 38  |  |  |  |      |
| 39  |  |  |  |      |
| 40  |  |  |  |      |
| 41  |  |  |  |      |
| 42  |  |  |  |      |
| 43  |  |  |  |      |

## 五、發明說明 ( 32 )

| 實例號 | Z                                                                                   | G                                                                                    | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 44  |    |     |    |      |
| 45  |    |     |    |      |
| 46  |   |     |   |      |
| 47  |  |   |  |      |
| 48  |  |   |  |      |
| 49  |  |  |  |      |
| 50  |  |  |  |      |
| 51  |  |  |  |      |

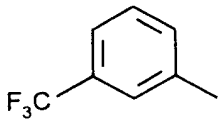
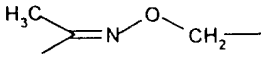
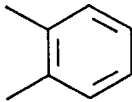
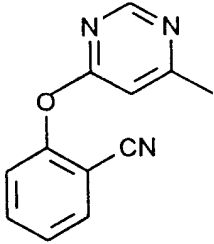
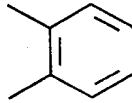
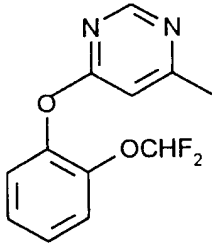
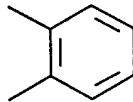
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

# 五、發明說明 ( 33 )

| 實例號 | Z                                                                                   | G                                                                                 | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 52  |    |  |    |      |
| 53  |    | O                                                                                 |    |      |
| 54  |  | O                                                                                 |  |      |

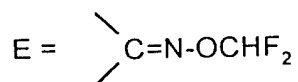
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 34 )

表 2 : 式 ( I ) 化合物之實例，其中分別地  $Q^1=0$ ， $Q^2=OCH_3$ 

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 55  |   |   |    |      |
| 56  |   |   |    |      |

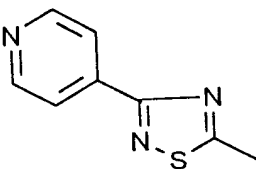
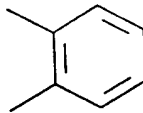
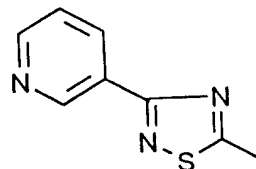
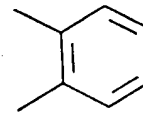
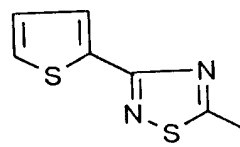
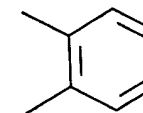
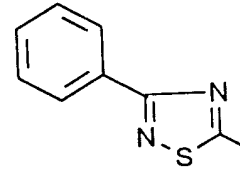
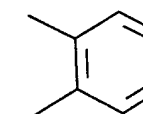
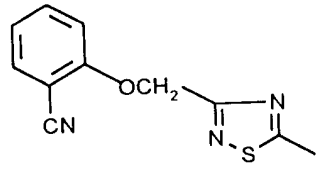
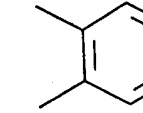
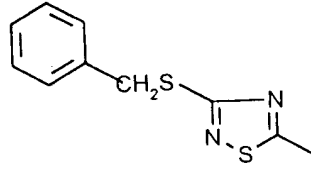
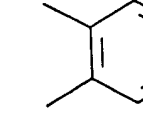
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

# 五、發明說明 ( 35 )

| 實例號 | Z                                                                                   | G | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------|------|
| 57  |    | o |    |      |
| 58  |    | o |    |      |
| 59  |   | o |   |      |
| 60  |  | o |  |      |
| 61  |  | o |  |      |
| 62  |  | o |  |      |

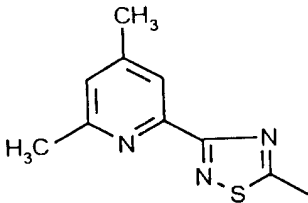
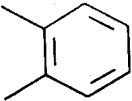
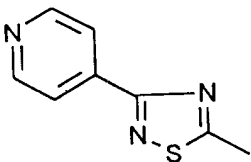
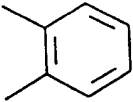
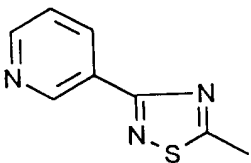
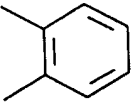
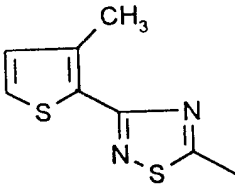
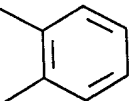
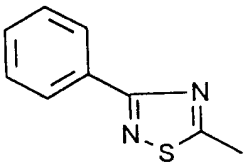
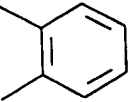
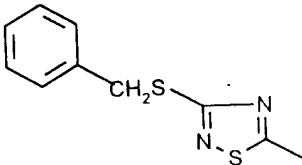
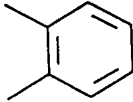
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

五、發明說明 ( 36 )

| 實例號 | Z                                                                                   | G | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------|------|
| 63  |    | O |    |      |
| 64  |    | O |    |      |
| 65  |   | O |   |      |
| 66  |  | O |  |      |
| 67  |  | S |  |      |
| 68  |  | S |  |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 37 )

| 實例號 | Z | G                        | Ar | 物理數據 |
|-----|---|--------------------------|----|------|
| 69  |   | $\text{SO}_2\text{CH}_2$ |    |      |
| 70  |   | $-\text{OCH}_2-$         |    |      |
| 71  |   | $-\text{OCH}_2-$         |    |      |
| 72  |   | $-\text{OCH}_2-$         |    |      |
| 73  |   | $-\text{OCH}_2-$         |    |      |
| 74  |   | $-\text{OCH}_2-$         |    |      |
| 75  |   | $-\text{OCH}_2-$         |    |      |

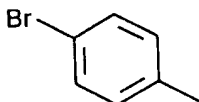
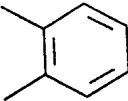
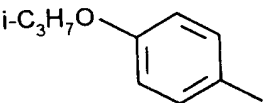
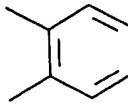
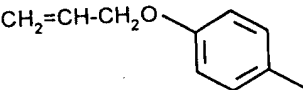
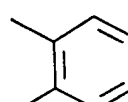
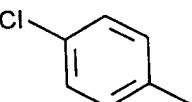
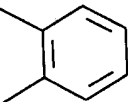
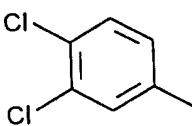
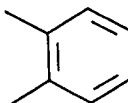
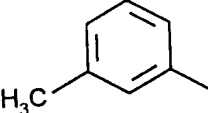
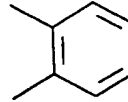
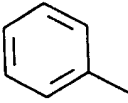
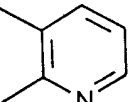
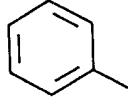
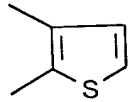
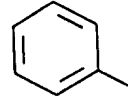
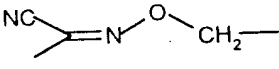
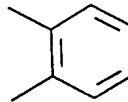
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 38 )

| 實例號 | Z                                                                                   | G                                                                                    | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 76  |    | -OCH <sub>2</sub> -                                                                  |    |      |
| 77  |    | -OCH <sub>2</sub> -                                                                  |    |      |
| 78  |    | -OCH <sub>2</sub> -                                                                  |    |      |
| 79  |   | -OCH <sub>2</sub> -                                                                  |   |      |
| 80  |  | -OCH <sub>2</sub> -                                                                  |  |      |
| 81  |  | O                                                                                    |  |      |
| 82  |  | O                                                                                    |  |      |
| 83  |  | O                                                                                    |  |      |
| 84  |  |  |  |      |

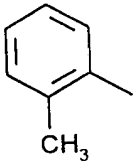
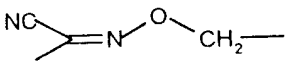
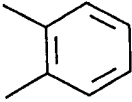
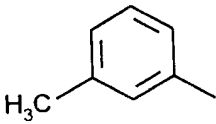
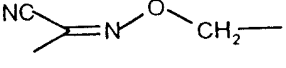
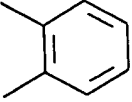
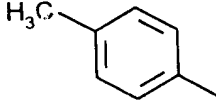
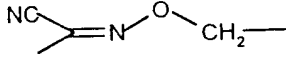
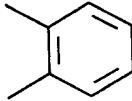
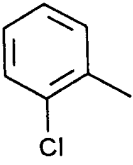
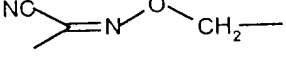
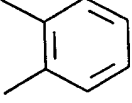
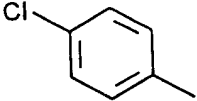
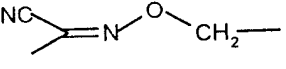
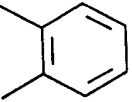
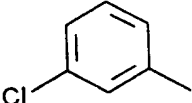
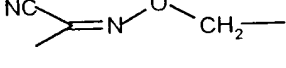
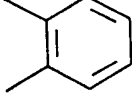
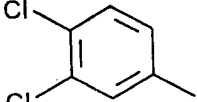
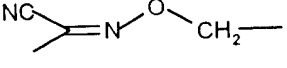
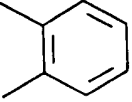
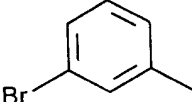
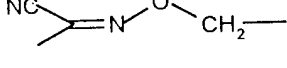
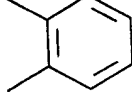
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

五、發明說明 ( 39 )

| 實例號 | Z                                                                                   | G                                                                                    | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 85  |    |     |    |      |
| 86  |    |     |    |      |
| 87  |   |     |   |      |
| 88  |  |   |  |      |
| 89  |  |   |  |      |
| 90  |  |   |  |      |
| 91  |  |  |  |      |
| 92  |  |  |  |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 40 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 93  |   |   |    |      |
| 94  |   |   |    |      |
| 95  |   |   |    |      |
| 96  |   |   |    |      |
| 97  |   |   |    |      |
| 98  |   |   |    |      |
| 99  |   |   |    |      |
| 100 |   |   |    |      |

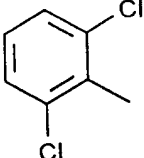
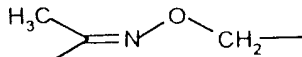
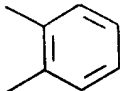
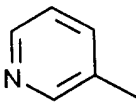
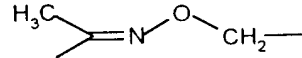
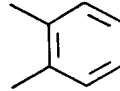
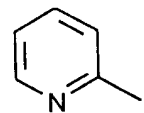
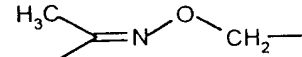
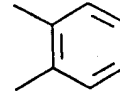
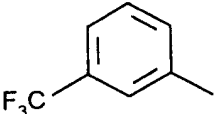
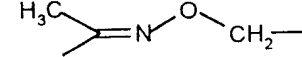
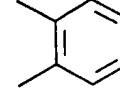
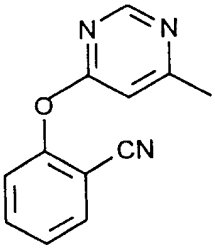
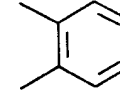
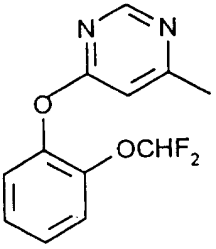
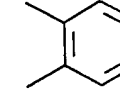
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 41 )

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 101 |    |    |    |      |
| 102 |    |    |    |      |
| 103 |    |    |    |      |
| 104 |  |  |  |      |
| 105 |  | o                                                                                   |  |      |
| 106 |  | o                                                                                   |  |      |

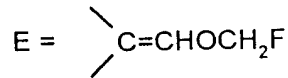
(請先閱讀背面之注意事項再填寫本頁)

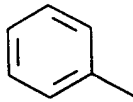
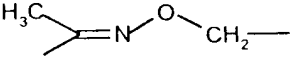
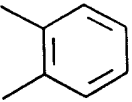
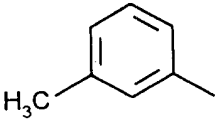
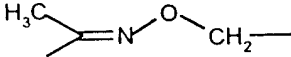
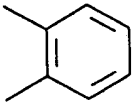
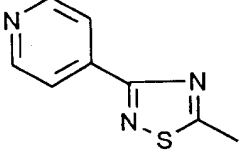
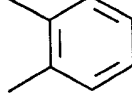
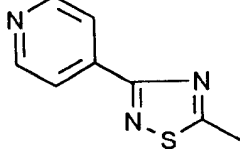
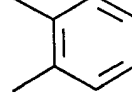
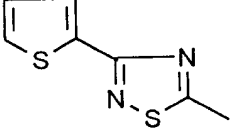
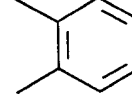
○ 裝

訂

線

## 五、發明說明 ( 42 )

表 3：式 ( I ) 化合物之實例，其中分別地  $Q^1=0$ ， $Q^2=OCH_3$ 

| 實例號 | Z                                                                                   | G                                                                                 | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 107 |    |  |    |      |
| 108 |   |  |   |      |
| 109 |  | o                                                                                 |  |      |
| 110 |  | o                                                                                 |  |      |
| 111 |  | o                                                                                 |  |      |

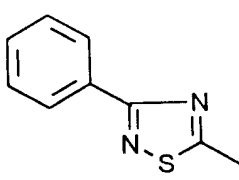
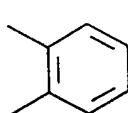
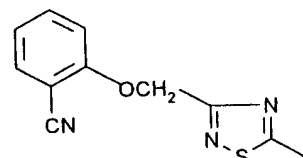
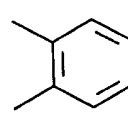
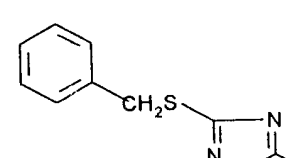
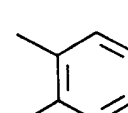
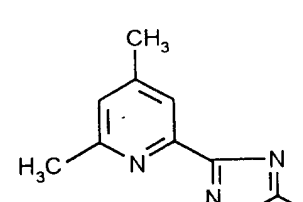
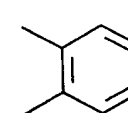
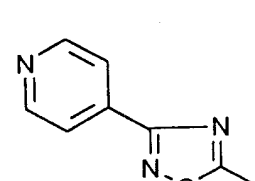
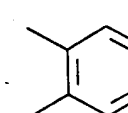
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 43 )

| 實例號 | Z                                                                                   | G | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------|------|
| 112 |    | O |    |      |
| 113 |    | O |    |      |
| 114 |   | O |   |      |
| 115 |  | O |  |      |
| 116 |  | O |  |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

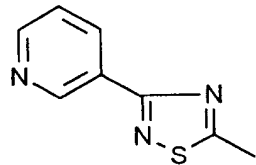
訂

線

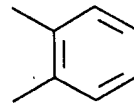
# 五、發明說明 ( 44 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
|-----|---|---|----|------|

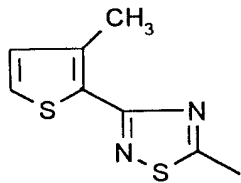
117



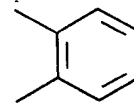
O



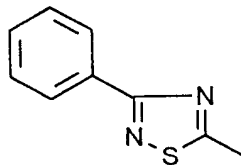
118



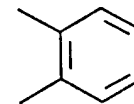
O



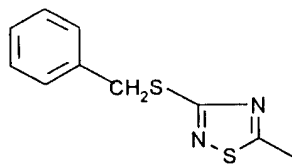
119



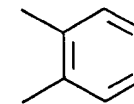
S



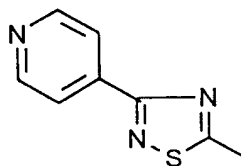
120



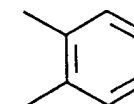
S



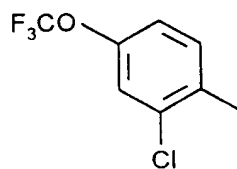
121



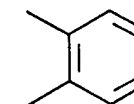
SO<sub>2</sub>CH<sub>2</sub>



122



-OCH<sub>3</sub>-



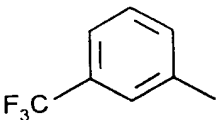
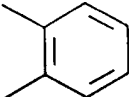
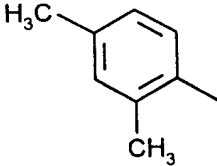
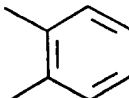
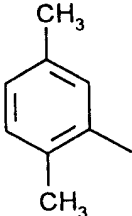
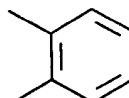
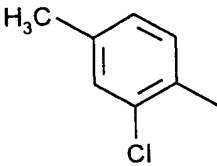
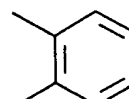
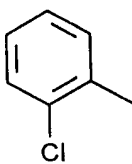
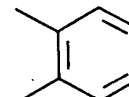
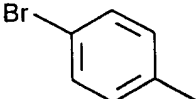
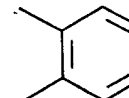
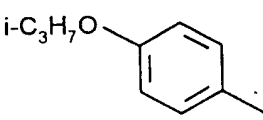
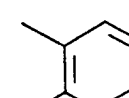
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 45 )

| 實例號 | Z                                                                                   | G                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------|------|
| 123 |    | -OCH <sub>2</sub> - |    |      |
| 124 |    | -OCH <sub>2</sub> - |    |      |
| 125 |   | -OCH <sub>2</sub> - |    |      |
| 126 |  | -OCH <sub>2</sub> - |  |      |
| 127 |  | -OCH <sub>2</sub> - |  |      |
| 128 |  | -OCH <sub>2</sub> - |  |      |
| 129 |  | -OCH <sub>2</sub> - |  |      |

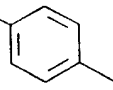
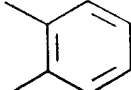
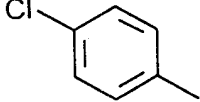
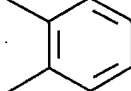
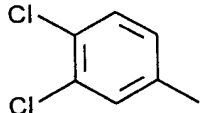
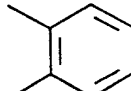
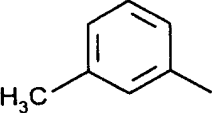
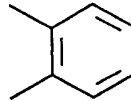
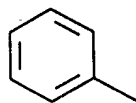
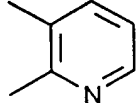
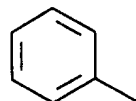
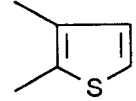
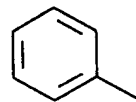
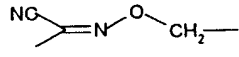
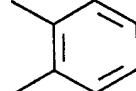
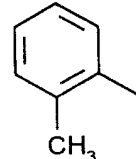
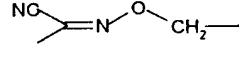
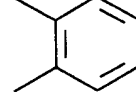
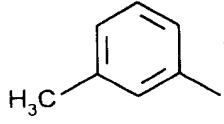
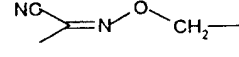
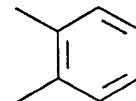
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 46 )

| 實例號 | Z                                                                                                                              | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 130 | $\text{CH}_2=\text{CH}-\text{CH}_2\text{O}-$  | $-\text{OCH}_2-$                                                                    |    |      |
| 131 |                                               | $-\text{OCH}_2-$                                                                    |    |      |
| 132 |                                               | $-\text{OCH}_2-$                                                                    |    |      |
| 133 |                                              | O                                                                                   |    |      |
| 134 |                                             | O                                                                                   |  |      |
| 135 |                                             | O                                                                                   |  |      |
| 136 |                                             |  |  |      |
| 137 |                                             |  |  |      |
| 138 |                                             |  |  |      |

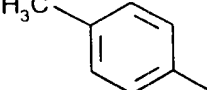
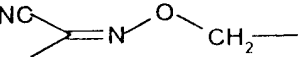
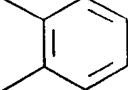
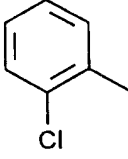
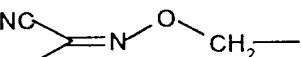
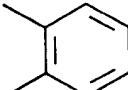
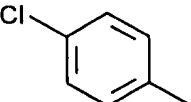
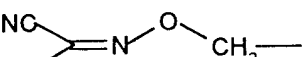
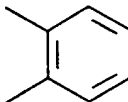
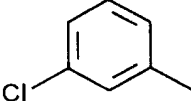
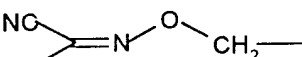
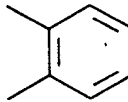
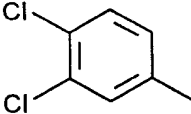
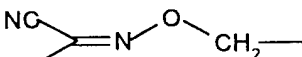
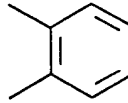
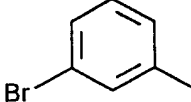
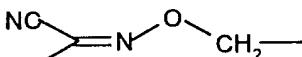
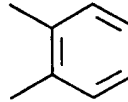
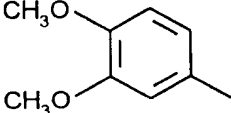
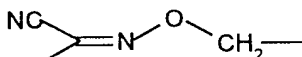
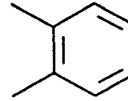
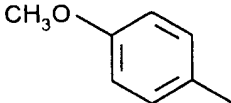
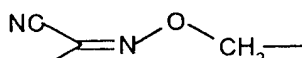
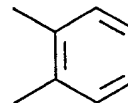
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

錄

# 五、發明說明 ( 47 )

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 139 |    |    |    |      |
| 140 |    |    |    |      |
| 141 |    |    |    |      |
| 142 |   |    |   |      |
| 143 |  |  |  |      |
| 144 |  |  |  |      |
| 145 |  |  |  |      |
| 146 |  |  |  |      |

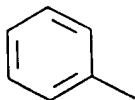
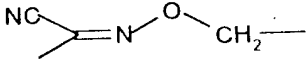
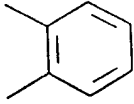
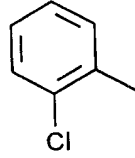
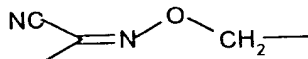
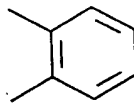
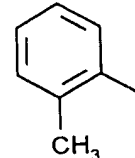
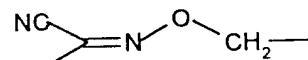
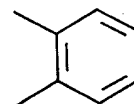
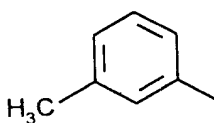
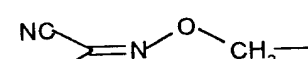
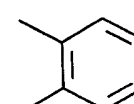
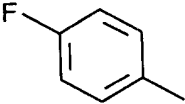
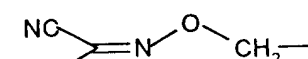
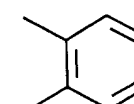
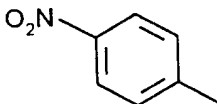
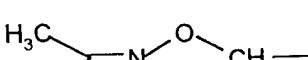
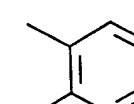
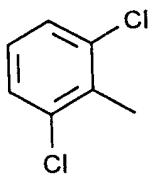
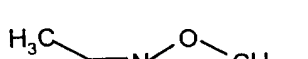
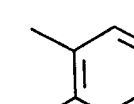
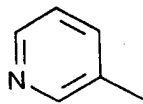
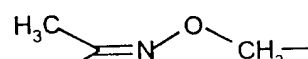
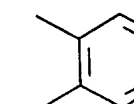
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

錄

## 五、發明說明(48)

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 147 |    |    |    |      |
| 148 |    |    |    |      |
| 149 |    |    |    |      |
| 150 |  |   |   |      |
| 151 |  |  |  |      |
| 152 |  |  |  |      |
| 153 |  |  |  |      |
| 154 |  |  |  |      |

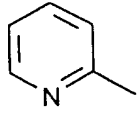
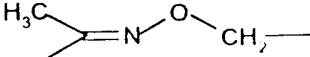
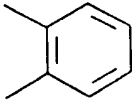
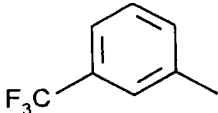
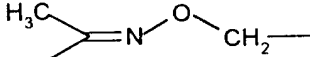
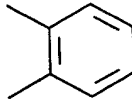
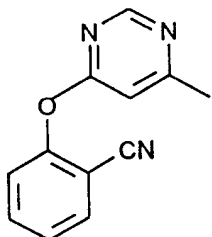
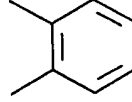
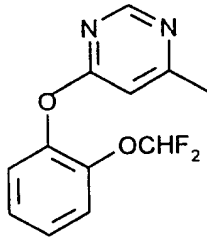
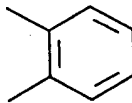
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

錄

# 五、發明說明 ( 49 )

| 實例號 | Z                                                                                   | G                                                                                 | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 155 |    |  |    |      |
| 156 |    |  |    |      |
| 157 |    | o                                                                                 |    |      |
| 158 |  | o                                                                                 |  |      |

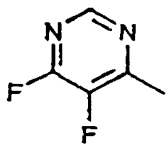
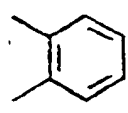
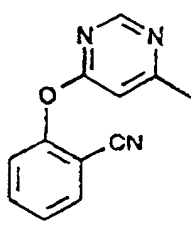
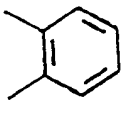
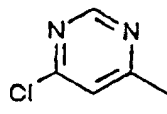
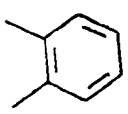
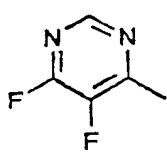
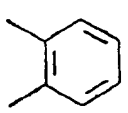
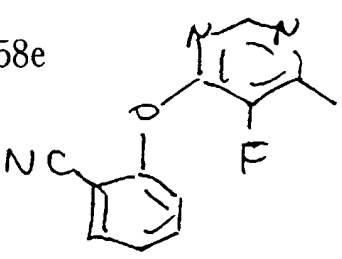
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( )

| 實例號  | Z                                                                                   | G | Ar                                                                                  | 物理數據                                                                                   |
|------|-------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 158a |    | 0 |    | $^1\text{H-NMR}(\text{CDCl}_3)$<br>$\delta(\text{ppm})$<br>5.49(d, 2H)<br>(油)<br>Z-異構物 |
| 158b |    | 0 |    | 5.42(d, 2H)<br>(油)                                                                     |
| 158c |  | 0 |  | 5.41(d, 2H)<br>(油)                                                                     |
| 158d |  | 0 |  | 5.41(d, 2H)<br>(油)<br>E-異構物                                                            |
| 158e |  | 0 |  | 5.42(d, 2H)<br>(油)                                                                     |

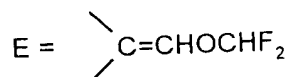
(請先閱讀背面之注意事項再填寫本頁)

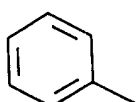
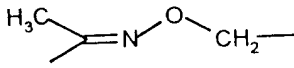
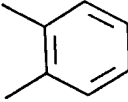
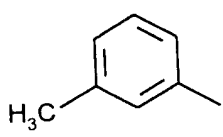
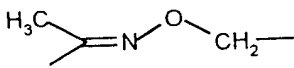
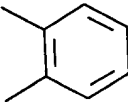
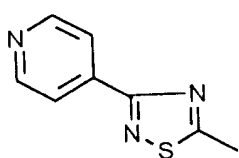
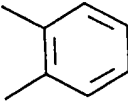
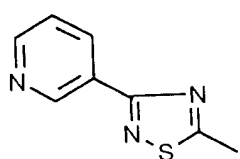
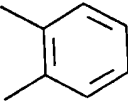
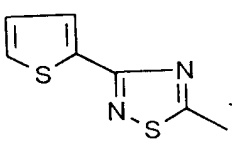
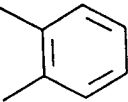
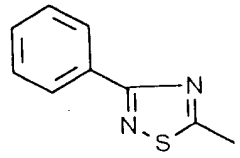
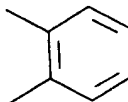
表

訂

象

## 五、發明說明 (51)

表 4：式 (I) 化合物之實例，其中分別地  $Q^1=0$ ， $Q^2=OCH_3$ 

| 實例號 | Z                                                                                   | G                                                                                  | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 159 |    |   |    |      |
| 160 |   |  |   |      |
| 161 |  | o                                                                                  |  |      |
| 162 |  | o                                                                                  |  |      |
| 163 |  | o                                                                                  |  |      |
| 164 |  | o                                                                                  |  |      |

## 五、發明說明 ( 52 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 165 |   | 0 |    |      |
| 166 |   | 0 |    |      |
| 167 |   | 0 |    |      |
| 168 |   | 0 |    |      |
| 169 |   | 0 |    |      |

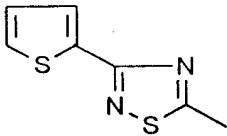
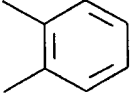
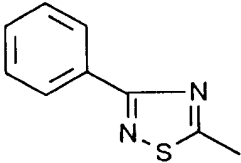
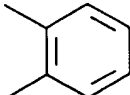
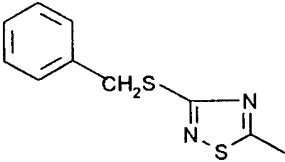
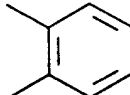
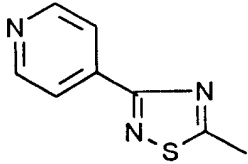
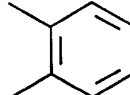
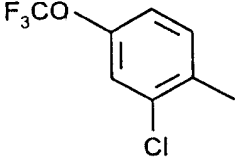
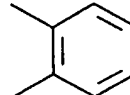
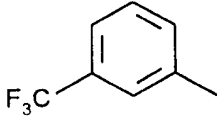
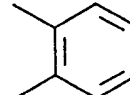
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 53 )

| 實例號 | Z                                                                                   | G                               | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------|------|
| 170 |    | O                               |    |      |
| 171 |    | O                               |    |      |
| 172 |    | O                               |    |      |
| 173 |  | SO <sub>2</sub> CH <sub>2</sub> |  |      |
| 174 |  | -OCH <sub>2</sub> -             |  |      |
| 175 |  | -OCH <sub>2</sub> -             |  |      |

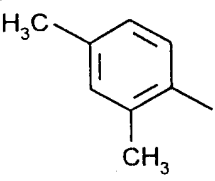
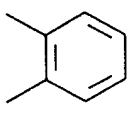
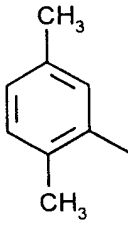
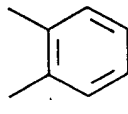
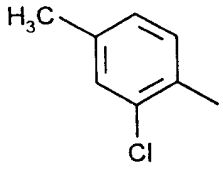
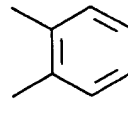
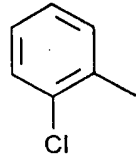
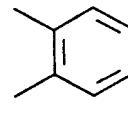
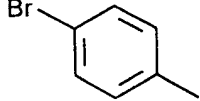
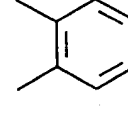
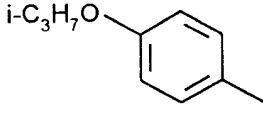
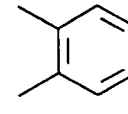
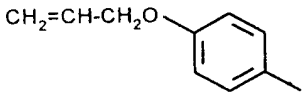
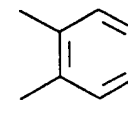
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 54 )

| 實例號 | Z                                                                                   | G                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------|------|
| 176 |    | -OCH <sub>2</sub> - |    |      |
| 177 |    | -OCH <sub>2</sub> - |    |      |
| 178 |   | -OCH <sub>2</sub> - |   |      |
| 179 |  | -OCH <sub>2</sub> - |  |      |
| 180 |  | -OCH <sub>2</sub> - |  |      |
| 181 |  | -OCH <sub>2</sub> - |  |      |
| 182 |  | -OCH <sub>2</sub> - |  |      |

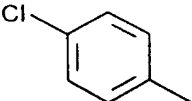
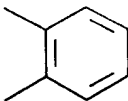
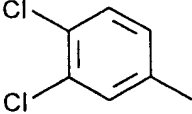
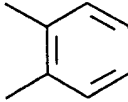
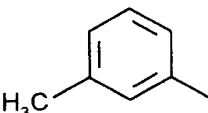
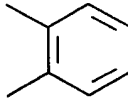
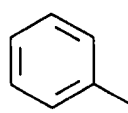
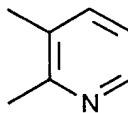
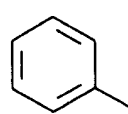
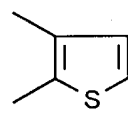
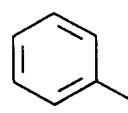
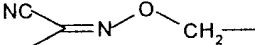
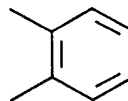
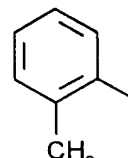
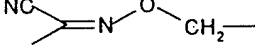
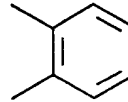
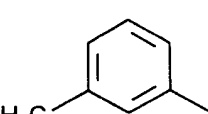
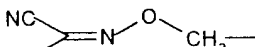
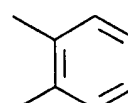
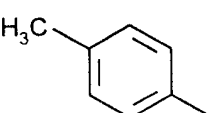
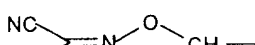
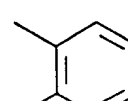
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 55 )

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 183 |    | $-\text{OCH}_2-$                                                                    |    |      |
| 184 |    | $-\text{OCH}_2-$                                                                    |    |      |
| 185 |    | O                                                                                   |    |      |
| 186 |   | O                                                                                   |   |      |
| 187 |  | O                                                                                   |  |      |
| 188 |  |  |  |      |
| 189 |  |  |  |      |
| 190 |  |  |  |      |
| 191 |  |  |  |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 56 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 192 |   |   |    |      |
| 193 |   |   |    |      |
| 194 |   |   |    |      |
| 195 |   |   |    |      |
| 196 |   |   |    |      |
| 197 |   |   |    |      |
| 198 |   |   |    |      |
| 199 |   |   |    |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

水

## 五、發明說明 ( 57 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 200 |   |   |    |      |
| 201 |   |   |    |      |
| 202 |   |   |    |      |
| 203 |   |   |    |      |
| 204 |   |   |    |      |
| 205 |   |   |    |      |
| 206 |   |   |    |      |
| 207 |   |   |    |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

錄

## 五、發明說明 ( 58 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 208 |   |   |    |      |
| 209 |   | o |    |      |
| 210 |   | o |    |      |

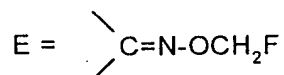
(請先閱讀背面之注意事項再填寫本頁)

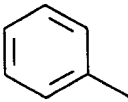
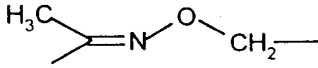
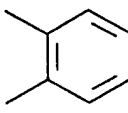
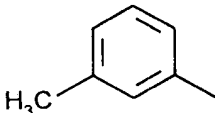
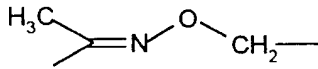
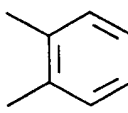
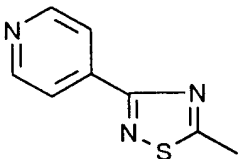
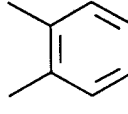
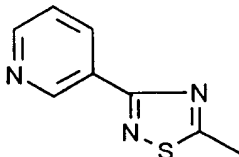
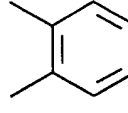
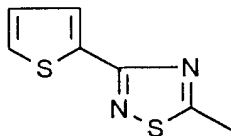
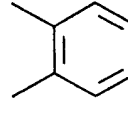
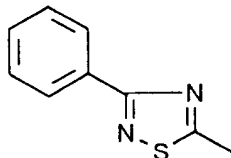
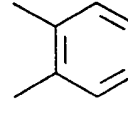
裝

訂

線

## 五、發明說明 ( 59 )

表 5：式 ( I ) 化合物之實例，其中分別地  $Q^1=O$ ， $Q^2=NHCH_3$ 

| 實例號 | Z                                                                                   | G                                                                                 | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 211 |    |  |    |      |
| 212 |   |  |    |      |
| 213 |  | o                                                                                 |  |      |
| 214 |  | o                                                                                 |  |      |
| 215 |  | o                                                                                 |  |      |
| 216 |  | o                                                                                 |  |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

# 五、發明說明 ( 60 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 217 |   | o |    |      |
| 218 |   | o |    |      |
| 219 |   | o |    |      |
| 220 |   | o |    |      |
| 221 |   | o |    |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 61 )

| 實例號  | Z | G                               | Ar | 物理數據                             |
|------|---|---------------------------------|----|----------------------------------|
| 222  |   | O                               |    |                                  |
| 223  |   | O                               |    |                                  |
| 224  |   | O                               |    |                                  |
| 225  |   | SO <sub>2</sub> CH <sub>2</sub> |    |                                  |
| 226  |   | -OCH <sub>2</sub> -             |    |                                  |
| 227  |   | -OCH <sub>2</sub> -             |    |                                  |
| 227a |   | -OCH <sub>2</sub> -             |    | <sup>1</sup> H-NMR:<br>2, 21 (s) |

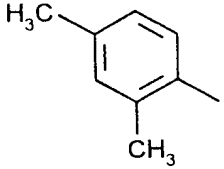
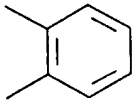
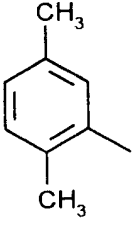
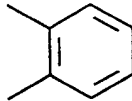
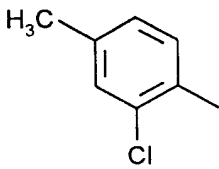
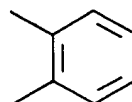
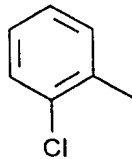
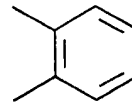
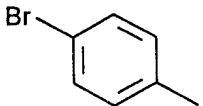
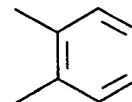
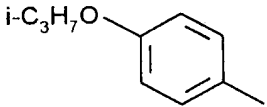
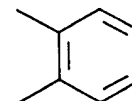
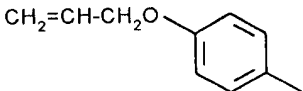
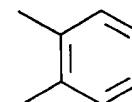
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明(62)

| 實例號 | Z                                                                                   | G                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------|------|
| 228 |    | -OCH <sub>2</sub> - |    |      |
| 229 |    | -OCH <sub>2</sub> - |    |      |
| 230 |   | -OCH <sub>2</sub> - |    |      |
| 231 |  | -OCH <sub>2</sub> - |  |      |
| 232 |  | -OCH <sub>2</sub> - |  |      |
| 233 |  | -OCH <sub>2</sub> - |  |      |
| 234 |  | -OCH <sub>2</sub> - |  |      |

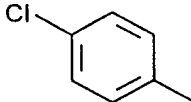
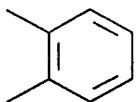
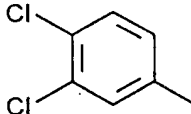
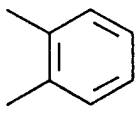
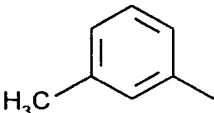
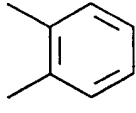
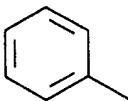
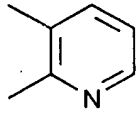
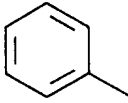
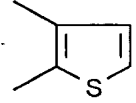
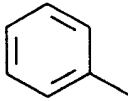
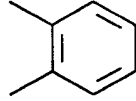
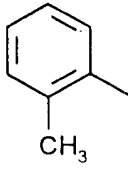
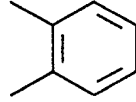
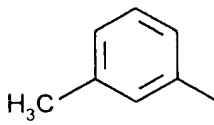
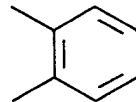
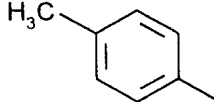
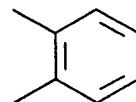
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明(63)

| 實例號 | Z                                                                                   | G                                          | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------|------|
| 235 |    | $-\text{OCH}_2-$                           |    |      |
| 236 |    | $-\text{OCH}_2-$                           |    |      |
| 237 |    | O                                          |    |      |
| 238 |   | O                                          |   |      |
| 239 |  | O                                          |  |      |
| 240 |  | $\text{NC}=\text{N}-\text{O}-\text{CH}_2-$ |  |      |
| 241 |  | $\text{NC}=\text{N}-\text{O}-\text{CH}_2-$ |  |      |
| 242 |  | $\text{NC}=\text{N}-\text{O}-\text{CH}_2-$ |  |      |
| 243 |  | $\text{NC}=\text{N}-\text{O}-\text{CH}_2-$ |  |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 64 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 244 |   |   |    |      |
| 245 |   |   |    |      |
| 246 |   |   |    |      |
| 247 |   |   |    |      |
| 248 |   |   |    |      |
| 249 |   |   |    |      |
| 250 |   |   |    |      |
| 251 |   |   |    |      |

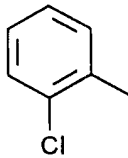
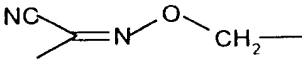
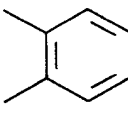
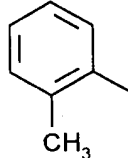
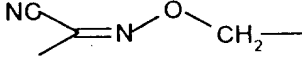
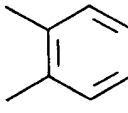
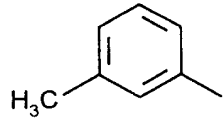
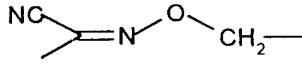
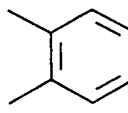
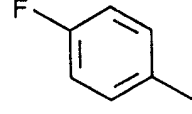
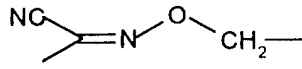
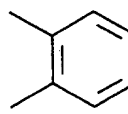
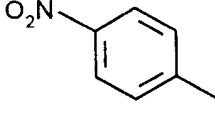
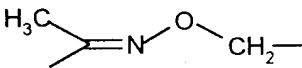
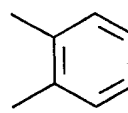
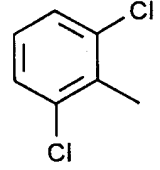
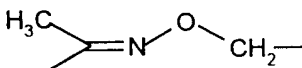
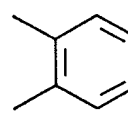
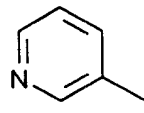
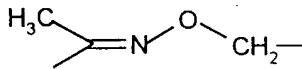
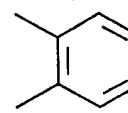
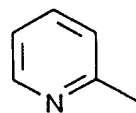
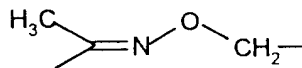
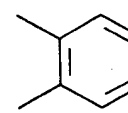
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

錄

五、發明說明書 316222

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 252 |    |    |    |      |
| 253 |    |    |    |      |
| 254 |   |   |   |      |
| 255 |  |  |  |      |
| 256 |  |  |  |      |
| 257 |  |  |  |      |
| 258 |  |  |  |      |
| 259 |  |  |  |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 66 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 260 |   |   |    |      |
| 261 |   | o |    |      |
| 262 |   | o |    |      |

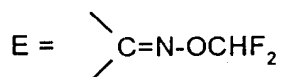
(請先閱讀背面之注意事項再填寫本頁)

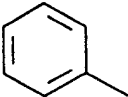
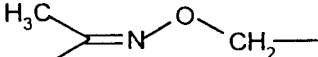
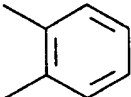
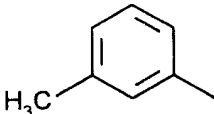
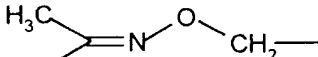
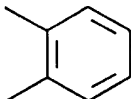
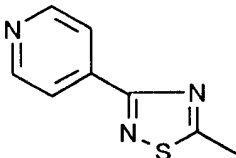
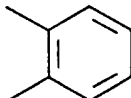
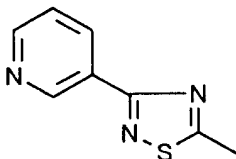
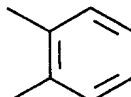
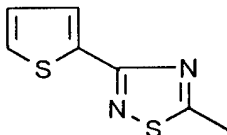
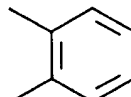
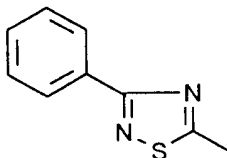
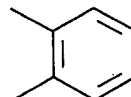
裝

訂

錄

## 五、發明說明 ( 67 )

表 6：式 ( I ) 化合物之實例，其中分別地  $Q^1=0$ ， $Q^2=NHCH_3$ 

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 263 |   |    |    |      |
| 264 |  |  |  |      |
| 265 |  | o                                                                                   |  |      |
| 266 |  | o                                                                                   |  |      |
| 267 |  | o                                                                                   |  |      |
| 268 |  | o                                                                                   |  |      |

# 五、發明說明 ( 68 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 269 |   | o |    |      |
| 270 |   | o |    |      |
| 271 |   | o |    |      |
| 272 |   | o |    |      |
| 273 |   | o |    |      |

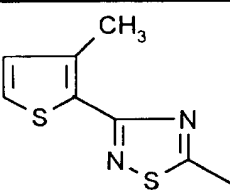
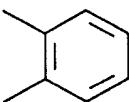
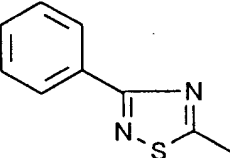
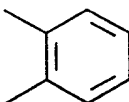
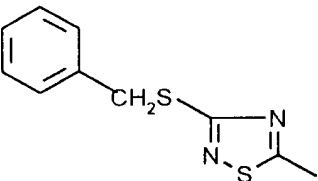
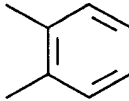
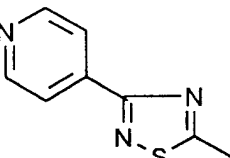
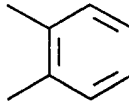
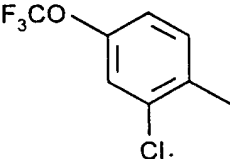
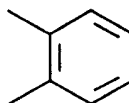
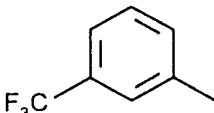
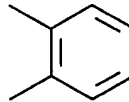
(請先閱讀背面之注意事項再填寫本頁)

裝

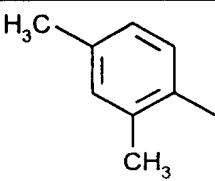
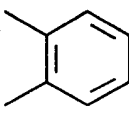
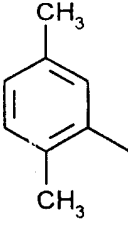
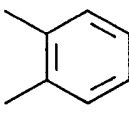
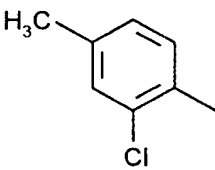
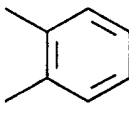
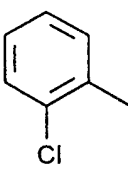
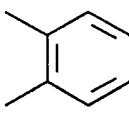
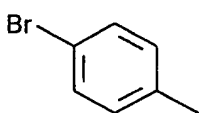
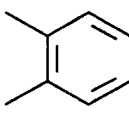
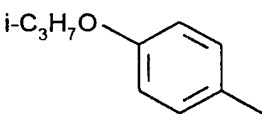
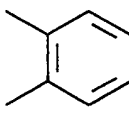
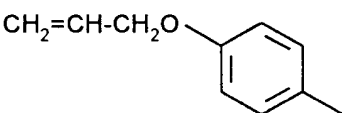
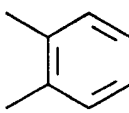
訂

錄

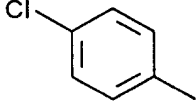
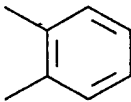
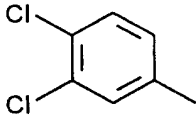
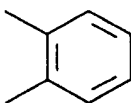
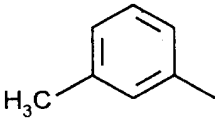
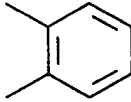
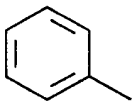
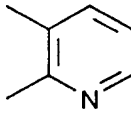
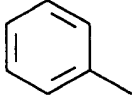
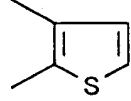
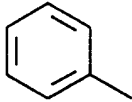
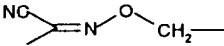
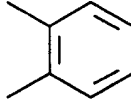
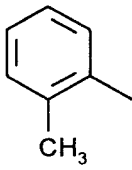
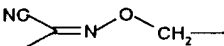
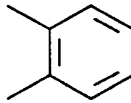
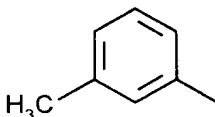
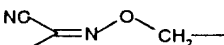
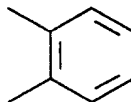
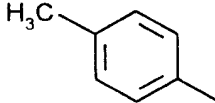
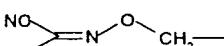
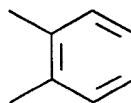
## 五、發明說明 ( 69 )

| 實例號 | Z                                                                                   | G                               | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------|------|
| 274 |    | O                               |    |      |
| 275 |    | S                               |    |      |
| 276 |  | S                               |  |      |
| 277 |  | SO <sub>2</sub> CH <sub>2</sub> |  |      |
| 278 |  | -OCH <sub>2</sub> -             |  |      |
| 279 |  | -OCH <sub>2</sub> -             |  |      |

## 五、發明說明 ( 70 )

| 實例號 | Z                                                                                   | G                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------|------|
| 280 |    | -OCH <sub>2</sub> - |    |      |
| 281 |    | -OCH <sub>2</sub> - |    |      |
| 282 |   | -OCH <sub>2</sub> - |   |      |
| 283 |  | -OCH <sub>2</sub> - |  |      |
| 284 |  | -OCH <sub>2</sub> - |  |      |
| 285 |  | -OCH <sub>2</sub> - |  |      |
| 286 |  | -OCH <sub>2</sub> - |  |      |

## 五、發明說明 ( 71 )

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 287 |    | -OCH <sub>2</sub> -                                                                 |    |      |
| 288 |    | -OCH <sub>2</sub> -                                                                 |    |      |
| 289 |    | O                                                                                   |    |      |
| 290 |  | O                                                                                   |  |      |
| 291 |  | O                                                                                   |  |      |
| 292 |  |  |  |      |
| 293 |  |  |  |      |
| 294 |  |  |  |      |
| 295 |  |  |  |      |

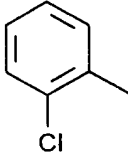
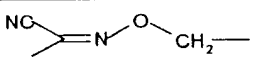
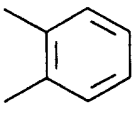
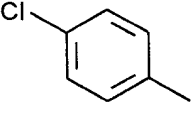
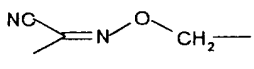
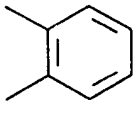
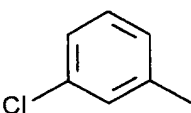
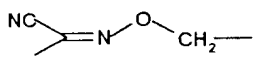
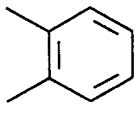
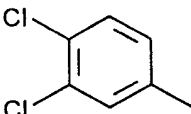
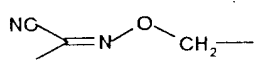
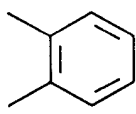
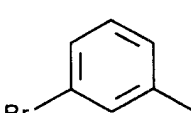
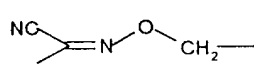
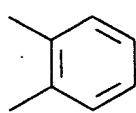
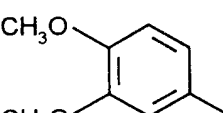
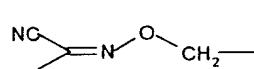
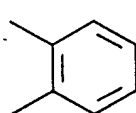
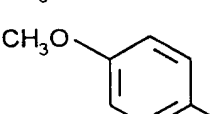
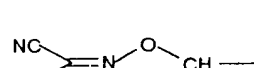
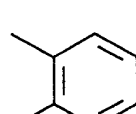
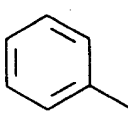
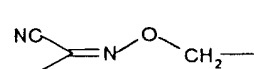
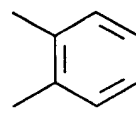
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

錄

五、發明說明 ( 72 )

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 296 |    |    |    |      |
| 297 |    |    |    |      |
| 298 |    |    |    |      |
| 299 |  |  |  |      |
| 300 |  |  |  |      |
| 301 |  |  |  |      |
| 302 |  |  |  |      |
| 303 |  |  |  |      |

(請先閱讀背面之注意事項再填寫本頁)

訂

## 五、發明說明 ( 73 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 304 |   |   |    |      |
| 305 |   |   |    |      |
| 306 |   |   |    |      |
| 307 |   |   |    |      |
| 308 |   |   |    |      |
| 309 |   |   |    |      |
| 310 |   |   |    |      |
| 311 |   |   |    |      |

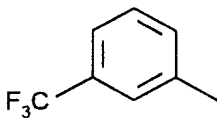
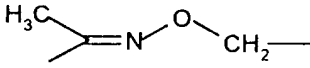
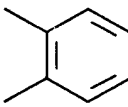
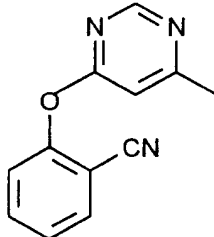
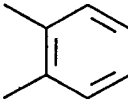
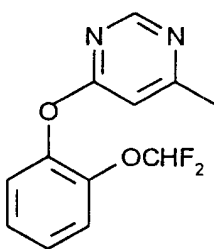
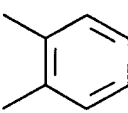
(請先閱讀背面之注意事項再填寫本頁)

裝

訂

水

五、發明說明 ( 74 )

| 實例號 | Z                                                                                  | G                                                                                 | Ar                                                                                  | 物理數據 |
|-----|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| 312 |   |  |   |      |
| 313 |   | o                                                                                 |   |      |
| 314 |  | o                                                                                 |  |      |

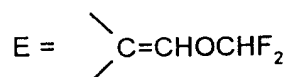
(請先閱讀背面之注意事項再填寫本頁)

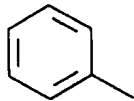
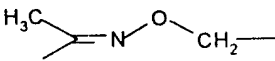
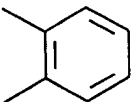
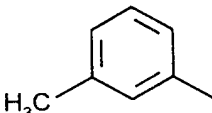
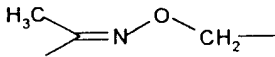
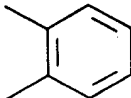
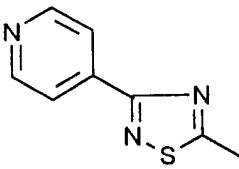
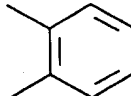
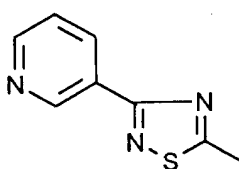
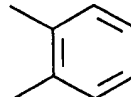
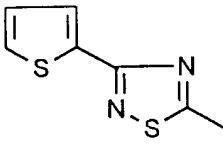
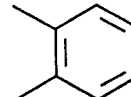
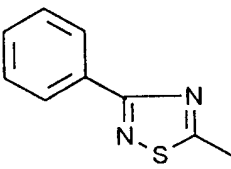
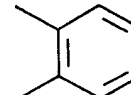
裝

訂

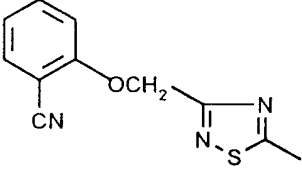
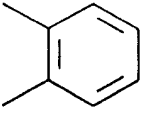
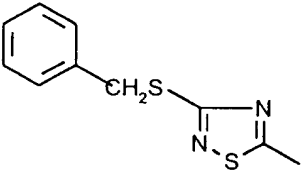
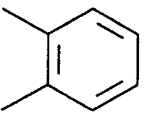
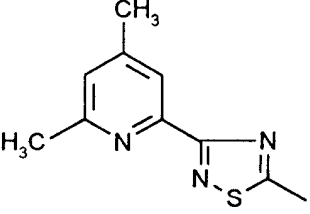
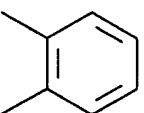
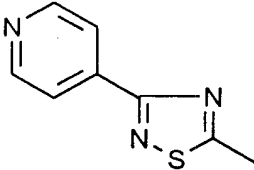
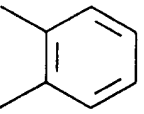
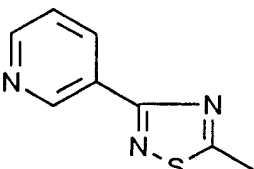
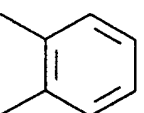
水

## 五、發明說明 ( 75 )

表 7：式 ( I ) 化合物之實例，其中分別地  $Q^1=0$ ， $Q^2=NHCH_3$ 

| 實例號 | Z                                                                                   | G                                                                                  | Ar                                                                                    | 物理數據 |
|-----|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| 315 |    |   |    |      |
| 316 |   |  |   |      |
| 317 |  | o                                                                                  |  |      |
| 318 |  | o                                                                                  |  |      |
| 319 |  | o                                                                                  |  |      |
| 320 |  | o                                                                                  |  |      |

## 五、發明說明 ( 76 )

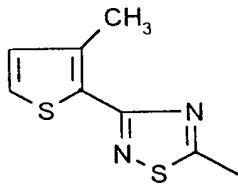
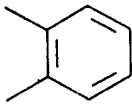
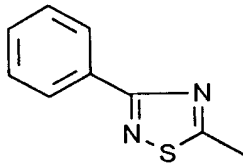
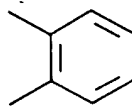
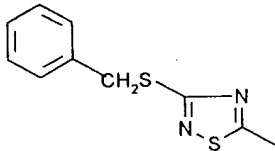
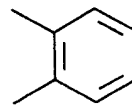
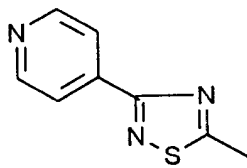
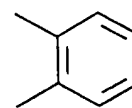
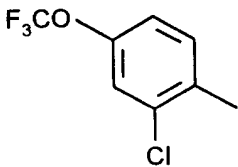
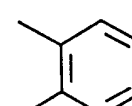
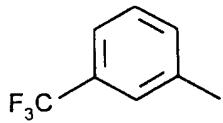
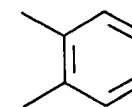
| 實例號 | Z                                                                                   | G | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------|------|
| 321 |    | o |    |      |
| 322 |    | o |    |      |
| 323 |   | o |    |      |
| 324 |  | o |  |      |
| 325 |  | o |  |      |

(請先閱讀背面之注意事項再填寫本頁)

袋

訂

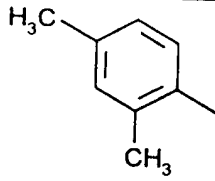
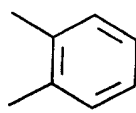
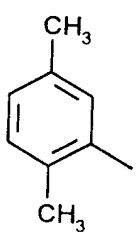
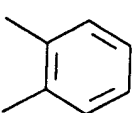
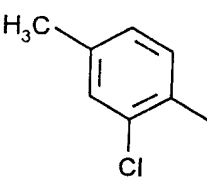
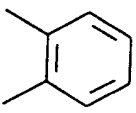
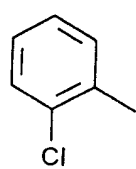
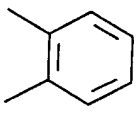
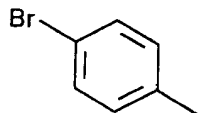
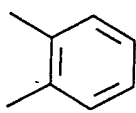
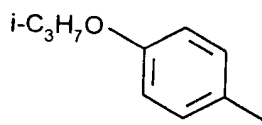
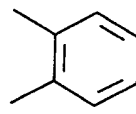
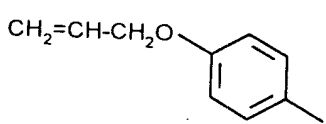
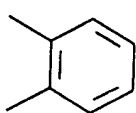
# 五、發明說明 ( 77 )

| 實例號 | Z                                                                                   | G                               | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------|------|
| 326 |    | o                               |    |      |
| 327 |    | s                               |    |      |
| 328 |   | s                               |   |      |
| 329 |  | SO <sub>2</sub> CH <sub>2</sub> |  |      |
| 330 |  | -OCH <sub>2</sub> -             |  |      |
| 331 |  | -OCH <sub>2</sub> -             |  |      |

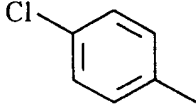
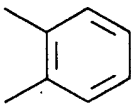
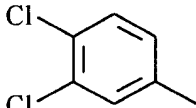
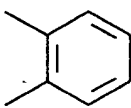
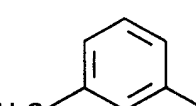
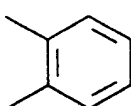
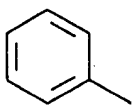
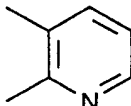
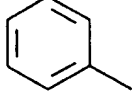
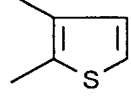
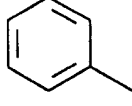
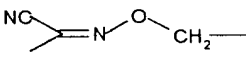
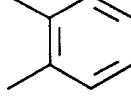
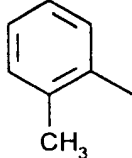
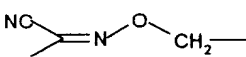
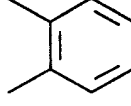
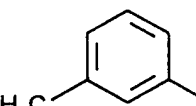
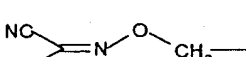
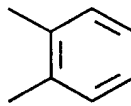
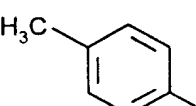
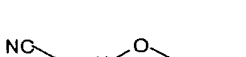
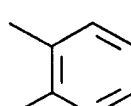
(請先閱讀背面之注意事項再填寫本頁)

訂

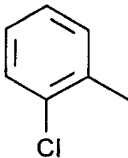
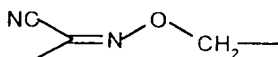
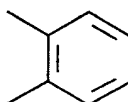
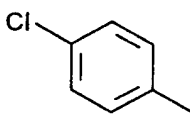
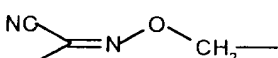
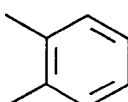
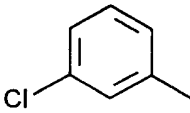
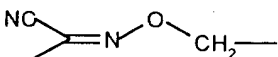
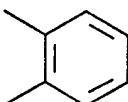
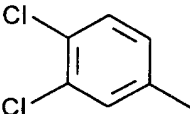
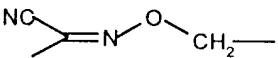
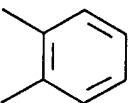
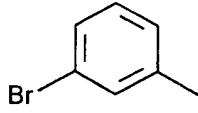
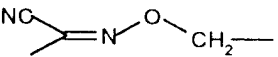
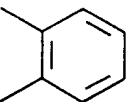
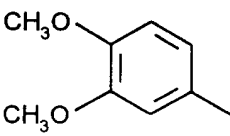
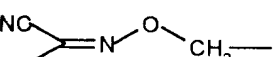
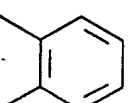
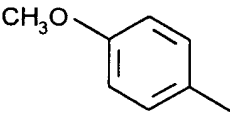
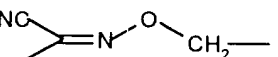
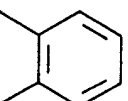
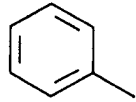
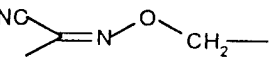
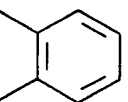
## 五、發明說明 ( 78 )

| 實例號 | Z                                                                                   | G                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------|------|
| 332 |    | -OCH <sub>2</sub> - |    |      |
| 333 |    | -OCH <sub>2</sub> - |    |      |
| 334 |   | -OCH <sub>2</sub> - |   |      |
| 335 |  | -OCH <sub>2</sub> - |  |      |
| 336 |  | -OCH <sub>2</sub> - |  |      |
| 337 |  | -OCH <sub>2</sub> - |  |      |
| 338 |  | -OCH <sub>2</sub> - |  |      |

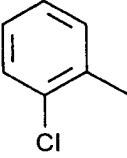
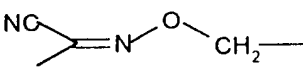
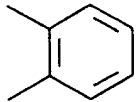
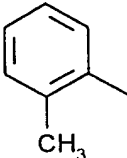
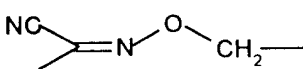
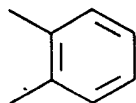
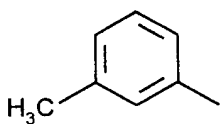
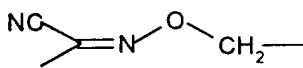
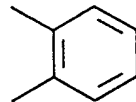
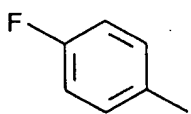
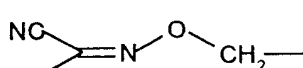
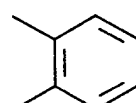
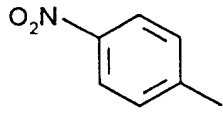
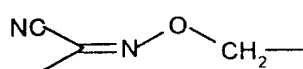
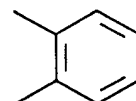
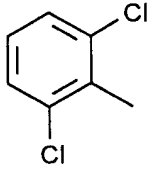
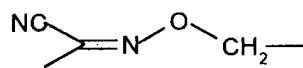
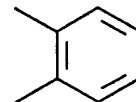
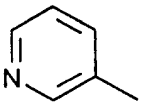
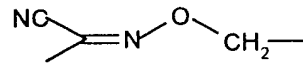
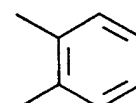
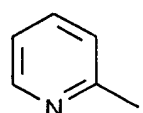
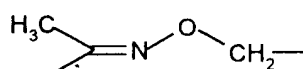
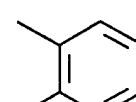
## 五、發明說明 ( 79 )

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 339 |    | $-\text{OCH}_2-$                                                                    |    |      |
| 340 |    | $-\text{OCH}_2-$                                                                    |    |      |
| 341 |    | O                                                                                   |    |      |
| 342 |   | O                                                                                   |   |      |
| 343 |  | O                                                                                   |  |      |
| 344 |  |  |  |      |
| 345 |  |  |  |      |
| 346 |  |  |  |      |
| 347 |  |  |  |      |

## 五、發明說明 ( 30 )

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 348 |    |    |    |      |
| 349 |    |    |    |      |
| 350 |    |    |    |      |
| 351 |  |  |  |      |
| 352 |  |  |  |      |
| 353 |  |  |  |      |
| 354 |  |  |  |      |
| 355 |  |  |  |      |

## 五、發明說明 ( 81 )

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 356 |    |    |    |      |
| 357 |    |    |    |      |
| 358 |   |    |   |      |
| 359 |  |  |  |      |
| 360 |  |  |  |      |
| 361 |  |  |  |      |
| 362 |  |  |  |      |
| 363 |  |  |  |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

線

## 五、發明說明 ( 82 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 364 |   |   |    |      |
| 365 |   | o |    |      |
| 366 |   | o |    |      |

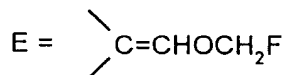
(請先閱讀背面之注意事項再填寫本頁)

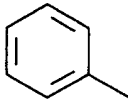
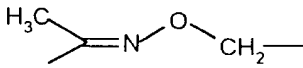
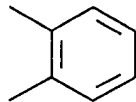
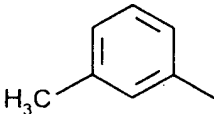
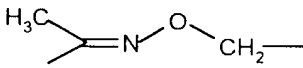
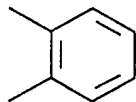
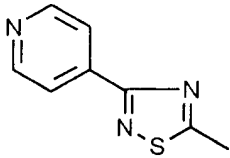
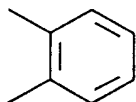
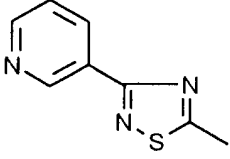
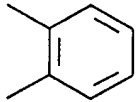
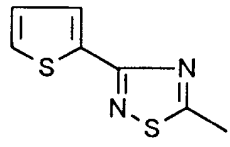
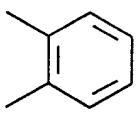
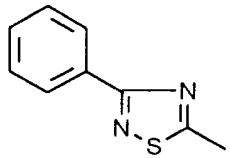
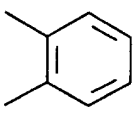
裝

訂

紙

## 五、發明說明 ( 83 )

表 8：式 ( I ) 化合物之實例，其中分別地  $Q^1=O$ ， $Q^2=NHCH_3$ 

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 367 |    |    |    |      |
| 368 |  |  |  |      |
| 369 |  | o                                                                                   |  |      |
| 370 |  | o                                                                                   |  |      |
| 371 |  | o                                                                                   |  |      |
| 372 |  | o                                                                                   |  |      |

## 五、發明說明 ( 84 )

| 實例號 | Z | G | Ar | 物理數據 |
|-----|---|---|----|------|
| 373 |   | 0 |    |      |
| 374 |   | 0 |    |      |
| 375 |   | 0 |    |      |
| 376 |   | 0 |    |      |
| 377 |   | 0 |    |      |

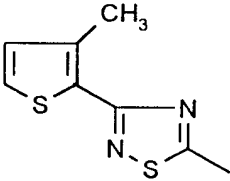
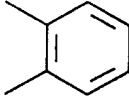
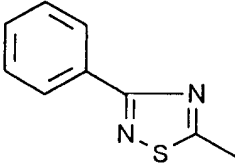
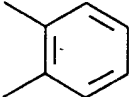
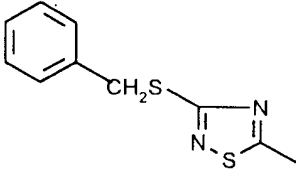
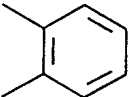
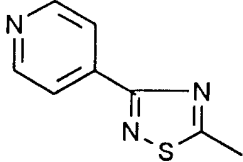
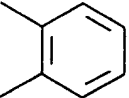
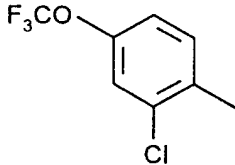
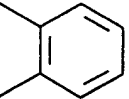
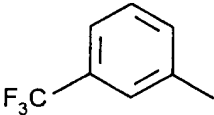
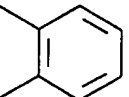
(請先閱讀背面之注意事項再填寫本頁)

裝

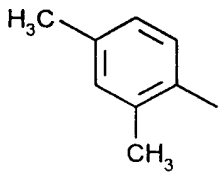
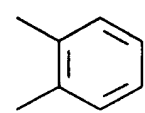
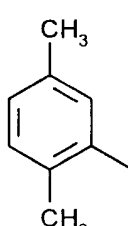
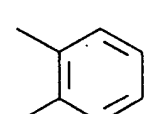
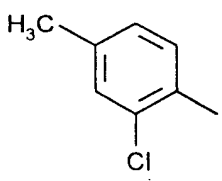
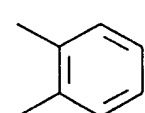
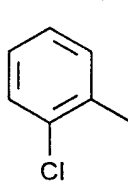
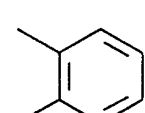
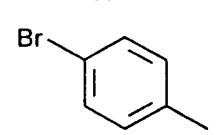
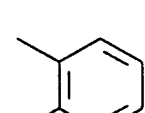
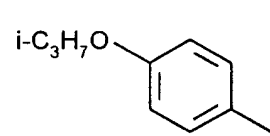
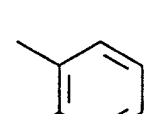
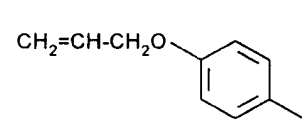
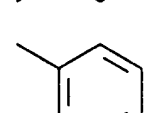
訂

紙

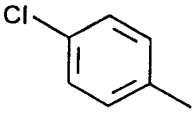
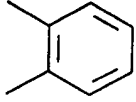
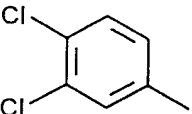
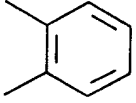
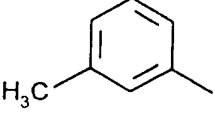
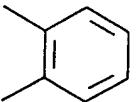
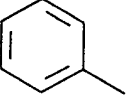
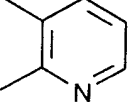
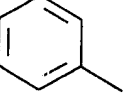
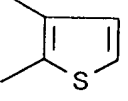
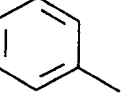
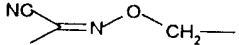
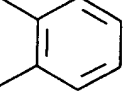
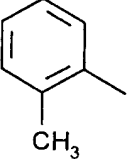
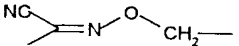
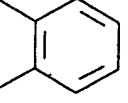
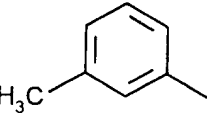
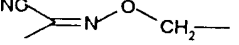
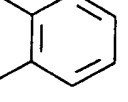
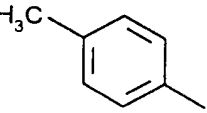
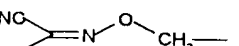
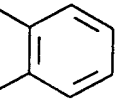
# 五、發明說明 ( 35 )

| 實例號 | Z                                                                                   | G                               | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------|------|
| 378 |    | O                               |    |      |
| 379 |    | S                               |    |      |
| 380 |  | S                               |  |      |
| 381 |  | SO <sub>2</sub> CH <sub>2</sub> |  |      |
| 382 |  | -OCH <sub>2</sub> -             |  |      |
| 383 |  | -OCH <sub>2</sub> -             |  |      |

# 五、發明說明 ( 86 )

| 實例號 | Z                                                                                   | G                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------|------|
| 384 |    | -OCH <sub>2</sub> - |    |      |
| 385 |    | -OCH <sub>2</sub> - |    |      |
| 386 |   | -OCH <sub>2</sub> - |   |      |
| 387 |  | -OCH <sub>2</sub> - |  |      |
| 388 |  | -OCH <sub>2</sub> - |  |      |
| 389 |  | -OCH <sub>2</sub> - |  |      |
| 390 |  | -OCH <sub>2</sub> - |  |      |

## 五、發明說明 ( 87 )

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 391 |    | -OCH <sub>2</sub> -                                                                 |    |      |
| 392 |    | -OCH <sub>2</sub> -                                                                 |    |      |
| 393 |    | O                                                                                   |    |      |
| 394 |   | O                                                                                   |  |      |
| 395 |  | O                                                                                   |  |      |
| 396 |  |  |  |      |
| 397 |  |  |  |      |
| 398 |  |  |  |      |
| 399 |  |  |  |      |

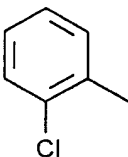
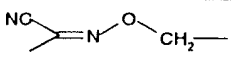
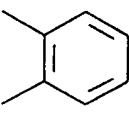
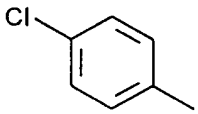
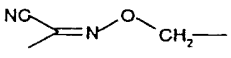
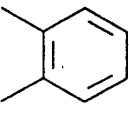
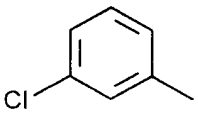
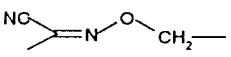
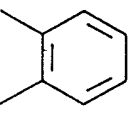
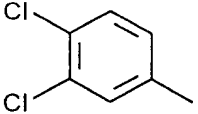
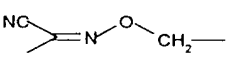
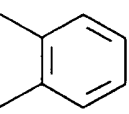
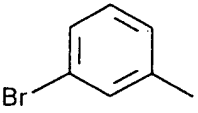
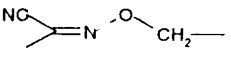
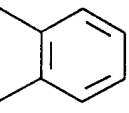
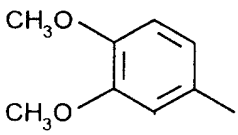
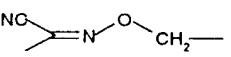
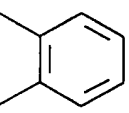
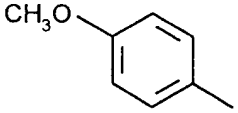
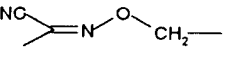
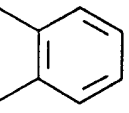
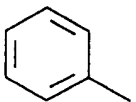
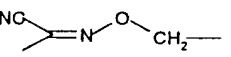
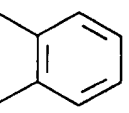
(請先閱讀背面之注意事項再填寫本頁)

裝

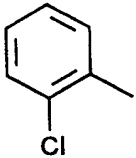
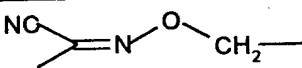
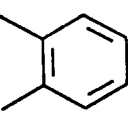
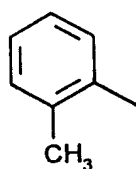
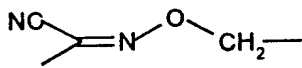
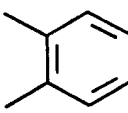
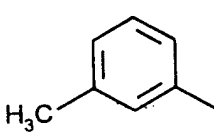
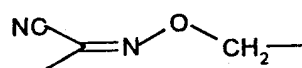
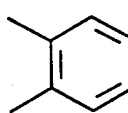
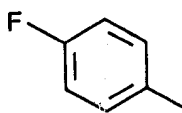
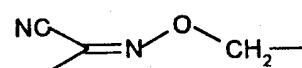
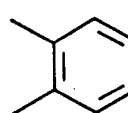
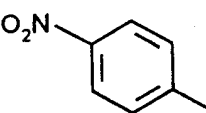
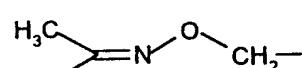
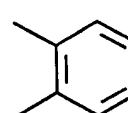
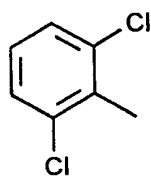
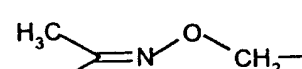
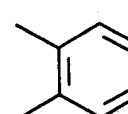
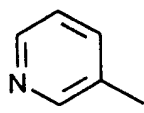
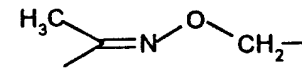
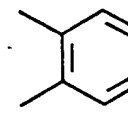
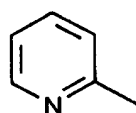
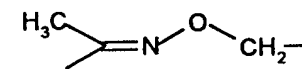
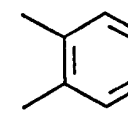
訂

編

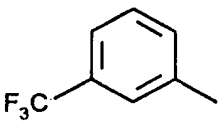
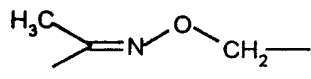
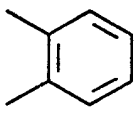
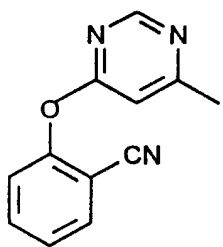
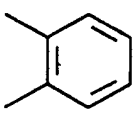
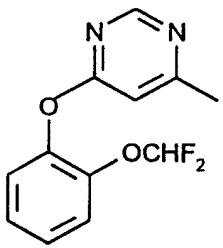
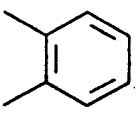
## 五、發明說明 ( 88 )

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 400 |    |    |    |      |
| 401 |    |    |    |      |
| 402 |    |    |    |      |
| 403 |  |  |  |      |
| 404 |  |  |  |      |
| 405 |  |  |  |      |
| 406 |  |  |  |      |
| 407 |  |  |  |      |

# 五、發明說明 (89)

| 實例號 | Z                                                                                   | G                                                                                   | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 408 |    |    |    |      |
| 409 |    |    |    |      |
| 410 |   |   |   |      |
| 411 |  |  |  |      |
| 412 |  |  |  |      |
| 413 |  |  |  |      |
| 414 |  |  |  |      |
| 415 |  |  |  |      |

## 五、發明說明 ( 90 )

| 實例號 | Z                                                                                   | G                                                                                 | Ar                                                                                   | 物理數據 |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 416 |    |  |    |      |
| 417 |   | o                                                                                 |    |      |
| 418 |  | o                                                                                 |  |      |

(請先閱讀背面之注意事項再填寫本頁)

裝

訂

## 五、發明說明(91)

### 用途實例

#### 實例 A

單絲殼屬試驗(黃瓜)/保護性

溶劑: 4.7重量份丙酮

乳化劑: 0.3重量份烷基芳基聚乙二醇醚

為製造活性化合物之適當製劑, 將1 重量份活性化合物與所述量溶劑及乳化劑混合, 之後以水稀釋濃縮液至所需濃度。

為測試保護活性, 將幼小植株噴以活性化合物製劑直至滴濕。於噴塗層業乾燥後, 將植物抹上真菌蒼耳單絲殼之分生孢子。

然後將植物置於在23至24°C及約75%相對大氣濕度下之溫室中。

接種後10天進行評估。

於該試驗中, 例如, 製備實例2之化合物(E 異構物)顯示極強之活性。

#### 實例 B

叉絲單囊殼屬試驗(蘋果)/保護性

溶劑: 4.7重量份丙酮

乳化劑: 0.3重量份烷基芳基聚乙二醇醚

為製造活性化合物之適當製劑, 將1 重量份活性化合物與所述量溶劑及乳化劑混合, 之後以水稀釋濃縮液至所需濃度。

為測試保護活性, 將幼小植株噴以活性化合物製劑直至

## 五、發明說明(92)

滴濕。於噴塗層業乾燥後，將植物抹上蘋果黴之致病菌（白叉絲單囊殼）。

然後將植物置於在23℃及約70%相對大氣濕度下之溫室中。

於接種後10天進行評估。

於該試驗中，例如，製備實例2之化合物（E異構物）顯示極強之活性。

### 實例 C

黑星菌試驗（蘋果）／保護性

溶劑：4.7重量份丙酮

乳化劑：0.3重量份烷基芳基聚乙二醇醚

為製備活性化合物之適當製劑，將1重量份活性化合物與所述量溶劑及乳化劑混合，之後將濃縮液以水稀釋至所需濃度。

為測試保護活性，將幼小植株噴以活性化合物製劑直至滴濕。於噴塗層乾燥後，將植株接種以蘋果癬致病菌（蘋果黑星菌）之分生孢子水懸浮液，然後放置於相對大氣濕度為100%之20℃培養室中1天。

然後將植株放置於相對大氣濕度為約70%之20℃溫室中。

於接種後12天進行評估。

於該試驗中，例如，製備實例2之化合物（E異構物）顯現極強之活性。

### 實例 D

## 五、發明說明(93)

白粉菌試驗(大麥)／保護性

溶劑：10重量份N-甲基吡咯烷酮

乳化劑：0.6重量份烷基芳基聚乙二醇醚

為製備活性化合物之適當製劑，將1重量份活性化合物與所述量溶劑及乳化劑混合，之後以水稀釋濃縮液至所需濃度。

為測試保護活性，將幼小植株於給定施用率下噴以活性化合物製劑。於噴塗層業乾燥後，將植物抹上禾白粉菌 *f. sp. hordei* 之孢子。

將植物放置於在約20℃及相對大氣濕度約80%下之溫室中，以促進粉狀霉膿胞之形成。

於接種後7天進行評估。

於該試驗中，例如，製備實例2之化合物(E異構物)於每公頃250克活性化合物之施用率下顯現100%之有效度。

實例E白粉菌試驗(大麥)／治療性

溶劑：10重量份N-甲基吡咯烷酮

乳化劑：0.6重量份烷基芳基聚乙二醇醚

為製備活性化合物之適當製劑，將1重量份活性化合物與所述量溶劑及乳化劑混合，之後以水稀釋濃縮液至所需濃度。

為測試保護活性，將幼小植株抹上禾白粉菌 *f. sp. hordei* 之孢子。接種後48小時，於所定施用率下將植物噴以活性化合物之製劑。

## 五、發明說明(94)

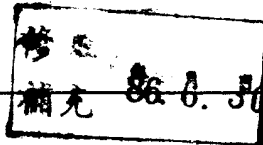
將植物放置於在約20℃及相對大氣濕度約80%下之溫室中，以促進粉狀霉膿孢之形成。

於接種後7天進行評估。

於該試驗中，例如，製備實例2之化合物(E異構物)於250克／公頃之施用率下顯現100%之有效度。

(請先閱讀背面之注意事項再填寫本頁)

訂



公告專利範圍

專利申請案第83110791號  
ROC Patent Appln. No. 83110791  
修正之申請專利範圍中文本-附件(-)  
Amended Claims in Chinese - Encl. (I)  
(民國 86 年 6 月 30 日送呈)  
(Submitted on June 30, 1997)

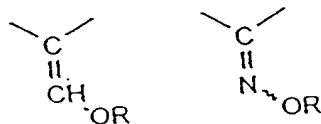
## 1. 式(I)之芳基乙酸衍生物



其中

Ar 在各種情況下代表仲苯基，

E 代表下列基群之一：



其中R 代表具1至6碳原子之鹵代烷基，

G 代表氧或-CH<sub>2</sub>-O-，Q<sup>1</sup> 代表氧，Q<sup>2</sup> 代表C<sub>1</sub>-C<sub>6</sub>烷氧基或C<sub>1</sub>-C<sub>6</sub>烷胺基，且

Z 代表分別選擇地經取代之苯基、噻二唑基或嘓啉基，其取代基係選自下列基群：

鹵素、分別為直鏈或分枝之具有1至6碳原子烷基、苯基、苯氧基和噻吩基，這些取代基個別選擇

## 六、申請專利範圍

地於苯基部份或於雜芳基部分經相同或不同之選  
自包括氟基和  $C_1-C_6$  烷基之取代基所單取代或多  
取代，

其之先決條件係當E為



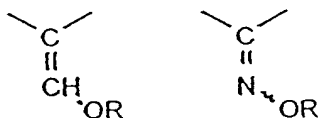
，G為氧且  $Q^2$  為  $C_1-C_6-$

烷氧基時，Z不可為經取代之嘧啶基。

2. 根據申請專利範圍第1項之式(1)芳基乙酸衍生物，其  
中

Ar 在各種情況下代表鄰位-、間位-或對位-仲苯基

E 代表以下基群之一



其中

R 代表甲基、乙基、正-或異-丙基或正-、異-  
、第二-或第三-丁基，其分別經氟及/或氯  
所取代，

G 代表氧或  $-CH_2-O-$ ，

$Q^1$  代表氧，

律師  
師人

## 六、申請專利範圍

Q<sup>2</sup> 代表甲氧基、乙氧基、正-或異-丙氧基、正-、異-、第二-或第三-丁氧基、甲胺基、乙胺基、正-或異-丙胺基、正-、異-、第二-或第三-丁胺基，且

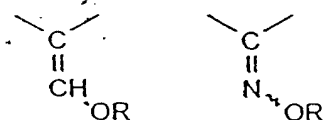
Z 代表分別選擇地經取代之苯基、噻二唑基或嘧啶基，其取代基係選自下列系列者：

氟、氯、溴、甲基、乙基、正-或異-丙基、正-、異-、第二-或第三-丁基、或苯基、苯氧基和噻吩基，這些取代基個別選擇地於苯基部份或於雜芳基部分經相同或不同之選自包括氟基、甲基、乙基、正-或異-丙基、正-、異-、第二-或第三-丁基之取代基所單取代或多取代。

3. 根據申請專利範圍第1項之式(1)芳基乙酸衍生物，其中

Ar 代表鄰位-仲苯基，

E 代表以下基群之一



## 六、申請專利範圍

其中

R 代表氟甲基或二氟甲基，

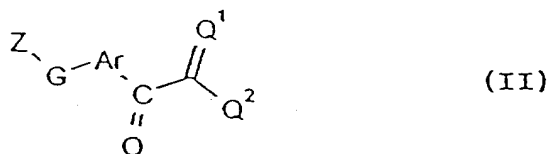
G 代表氧或  $-\text{CH}_2-\text{O}-$ ， $\text{Q}^1$  代表氧， $\text{Q}^2$  代表甲氧基、乙氧基、甲胺基、乙胺基，且

Z 代表分別選擇地經取代之苯基、噻二唑基或嘧啶基，其取代基為選自下列系列者：

氟、氯、溴、甲基、乙基、正-或異-丙基、正-、異-、第二-或第三-丁基、或苯基、苯氧基(其分別選擇地於苯基部份經氟基所單或多取代)和噻吩基(其係選擇地經甲基所單或多取代)。

4. 一種製備根據申請專利範圍第 1 項之式(I)芳基乙酸衍生物之方法，包括

(a) 將式(II)芳基二羧乙酸衍生物



其中

Ar、G、 $\text{Q}^1$ 、 $\text{Q}^2$  及 Z 具前述定義，

與式(III)O-鹵代烷基-羥基胺



專利  
師人

## 六、申請專利範圍

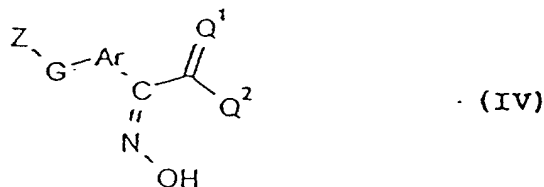
其中

R 代表鹵代烷基，

或與式(III)化合物之鹵化氫加成物，

若適當於反應輔助劑存在下且若適當於稀釋劑存在下，  
進行反應，或

(b)將式(IV)2-羥亞胺基-芳基乙酸衍生物



其中

Ar、G、Q<sup>1</sup>、Q<sup>2</sup>及Z具前述定義，

與式(V)鹵化烷



其中

R 代表鹵代烷基且

X 代表鹵素

若適當於反應輔助劑存在下且若適當於稀釋劑存在下，  
進行反應。5. 殺真菌劑，包括至少一種根據申請專利範圍第1項之式  
(I)化合物。6. 一種對抗真菌疾病之方法，其中使根據申請專利範圍第  
1項之式(I)化合物作用於真菌性有害生物及／或其環  
境。