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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: 4,7-DISUBSTITUTED INDOLES AND METHODS OF MAKING

(57) Abstract: The present invention provides, compounds, methods and compositions of biologically important indoles. In addition, the present invention provides synthesis methods for substituting leaving groups at positions 4 and 7 of the indole ring as diversity generating elements.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/20395

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 31/405, 31/40

US CL : 514/415, 418, 419

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/415, 418, 419

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	WO 2004/014294 A2 (IRM LLC) 19 February 2004 (19.02.2004), see abstract.	1-24
X,P	Database HCAPLUS on STN, No. 2003:98290, ALPER et al. 'Practical Synthesis and Elaboration of Methyl 7-Chloroindole-4-Carboxylate,' abstract, Journal of Organic Chemistry, 2003, Vol. 68, No. 5, pp. 2051-2053.	1-24

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier application or patent published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed		

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INTERNATIONAL SEARCH REPORT

PCT/US03/20395

Continuation of B. FIELDS SEARCHED Item 3:

STN ONLINE

search terms: 4,7-disubstituted indoles, LSD, Hippadine, 7-Octylindolactam V