(54) Title: PROCESS FOR PRODUCING PHENYLALKANES OF DESIRED 2-PHENYL CONTENT

(57) Abstract: The alkylation of aromatic compound with acyclic mono-olefin is effected under alkylation conditions including the presence of solid catalyst to provide a phenylalkane product having a consistent, desired 2-phenyl content. At least a portion of the aromatic compound and mono-olefin is contacted with a catalyst comprising FAU molecular sieve and at least a portion of the aromatic compound and mono-olefin is contacted with a catalyst comprising UZM-8 catalyst.
INTERNATIONAL SEARCH REPORT

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International application No
PCT/US 07/82899

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

A CLASSIFICATION OF SUBJECT MATTER

IPC(8) - C07C 2/00 (2008 01)
USPC - 585/323

Minimum documentation searched (classification system followed by classification symbols)
USPC - 585/323

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC 585/446, 449, 450; all remaining USPC classifications

Electronic database consulted during the international search (name of database and where practicable, search terms used)
WEST, Google Scholar, Google Patents, and Google Web

C DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>US 2005/0010072 A1 (JOLY et al.) 13 January 2005 (13 01 2005), para [0001], [0004], [0007], [0009], [0020], [0061]</td>
<td>1-3</td>
</tr>
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<td>Y</td>
<td>US 2006/0224031 A1 (JAN et al.) 5 October 2006 (05 10 2006), para [0006], [0061], [0066], [0068], [0071], [0074]</td>
<td>1-3</td>
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</table>

Date of the actual completion of the international search
12 February 2008 (1202 2008)

Date of mailing of the international search report
18 MAR 2008

Name and mailing address of the ISA/US
Mail Stop PCT, Attn ISA/US, Commissioner for Patents
P.O. Box 1450, Alexandria, Virginia 22313-1450
Facsimile No. 571-273-3201

Authorized officer
Lee W Young

Form PCT/ISA/2/10 (second sheet) (April 2007)
INTERNATIONAL SEARCH REPORT

Box No. II  Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [ ] Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:

2. D Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. X Claims Nos.: 4-10  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III  Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. [ ] As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest  
[ ] The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

[ ] The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

[ ] No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet (2)) (April 2007)