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Declarations under Rule 4.17:  
— as to applicant’s entitlement to apply for and be granted a patent (Rule 4.17 (H))  

(54) Title: ION EXCHANGE RESIN FOR PRODUCING BISPHENOL  

(57) Abstract: This invention relates to an ion exchange resin for producing bisphenol with high percent conversion and high percent selectivity to bisphenol, especially 4,4'-isopropylidenediphenol, wherein said ion exchange resin comprising aromatic polymer having sulfonic acid group modified with at least one promoter selected from compounds shown in the structure (I), (II), (III), (IV) or its amine salt: wherein R represents hydrocarbon unit with 1 to 6 carbon atoms selected from alkyl group, alkenyl group, alkynyl group, phenyl group, or optionally hydrocarbon containing carbonyl group having 1 to 6 carbon atoms; X represents heteroatom; n is an integer number from 1 to 4.  

[Continued on next page]
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A. CLASSIFICATION OF SUBJECT MATTER
IPC - B01J 31/02, 31/10, 31/08 (2017.01)
CPC - B01J 31/0225, 31/10, 31/08

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)
See Search History document

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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
See Search History document

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 3,394,089 A (MCNUTT, BW et al) 23 July 1968; column 1 lines 12-15; column 2 lines 15-23, 28-29; 39-45; 62-63; column 1 illustration</td>
<td>1-2, 3/1-2, 8-9, 10/1, 10/8-9, 11-14, 15/1, 15/1-12, 16/15/1, 16/15/1 1-12, 29-32</td>
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<tr>
<td>Y</td>
<td>Substance Record for SID 163550271 (PUBCHEM) PubChem Open Chemistry Database; 11 June 2013; image on page 3</td>
<td>1-2, 3/1-2, 8-9, 10/1, 10/8-9, 11-14, 15/1, 15/1-12, 16/15/1, 16/15/1 1-12, 29-32</td>
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<tr>
<td>Y</td>
<td>US 2,597,438 A (BODAMER, GW) 20 May 1952; claim 3</td>
<td>13-14</td>
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<tr>
<td>Y</td>
<td>CN 101585849 A (HJU, B et al) 25 November 2009; English translation; page 3 second column third and fourth paragraphs; page 5 the first step paragraph; page 6 adding 5ml paragraph, 'embodiment 1' paragraph</td>
<td>29-32</td>
</tr>
<tr>
<td>A</td>
<td>US 6,492,562 B1 (ASHLEY, G et al) 10 December 2002; column 2 lines 12-25; column 22 lines 1-10; figure 1</td>
<td>17-28</td>
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Further documents are listed in the continuation of Box C. See patent family annex.

- Special categories of cited documents:
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Form PCT/ISA/210 (second sheet) (January 2015)
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. 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. Claims Nos.: 1-7, 33-34 because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

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.: