PROCESS FOR PRODUCING OLEFIN OXIDE

A process for producing an olefin oxide which comprises reacting an olefin with oxygen in the presence of a catalyst comprising (a) copper oxide, (b) bismuth oxide and (c) alkaline metal component or alkaline earth metal component.
## INTERNATIONAL SEARCH REPORT

### A. CLASSIFICATION OF SUBJECT MATTER
- **IPC(8) - B01J 23/00; B01J 23/00; B01J 23/46 (2011.01)**
- **USPC - 502/317,117**

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)
- **IPC(8) - B01J 23/00; B01J 23/00; B01J 23/46 (2011.01)**
- **USPC - 502/317,117**

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
- **USPC - 502/317,118,113,117,118,165,102; 565/444; 549/523**
- **Non-patent literature; Patents (key word limited)**

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
- **PubWEST (PQPB, USPT, EPAB, JPAB); Google (Google Scholar, Google Patent)**
- **Search Terms Used**: olefin oxide, propylene oxide, propene oxide, epoxys propane, propylene epoxide, methyl/ethylene oxide, ethylene oxide, ethene oxide, butene oxide, butylene oxide, perene oxide, hexene oxide, heptene oxide, octene oxide, butadiene oxide, produce

### 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 3,071,601 A (ARIES) 01 January 1983 (01.01.1983) col 1, In 42-45, 52-64; col 2, In 1-2, 17-19; col 3, In 35-38; crm 1</td>
<td>1-31</td>
</tr>
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<td>Y</td>
<td>US 3,957,650 A (BOBOLEV, et al.) 18 May 1976 (18.05.1976) col 1, In 7-10, 45-49, 54-56; col 2, In 50-64; col 3, In 9-16; col 5, In 37-54; crm 8</td>
<td>1-31</td>
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<tr>
<td>Y</td>
<td>US 2009/0326250 A1 (KANO, et al.) 31 December 2009 (31.12.2009) para [0010], [0013]-[0014], [0036]-[0037], [0048]; crm 1</td>
<td>2, 3, 2, 5, 6, 7, 5, 8, 9, 2, 10, 2, 11, 2, 12, 12, 13, 2, 14/2, 16, 17, 2, 18, 2, 20, 21, 20, 23, 25, 26/20, 27, 23, 28/23, 29/20</td>
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<tr>
<td>Y</td>
<td>US 2004/0102643 A1 (TWAY) 27 May 2004 (27.05.2004) para [0032], [0054], [0063]</td>
<td>12</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

- **A** document defining the general state of the art which is not considered to be of particular relevance
- **E** earlier application or patent but published on or after the international filing date
- **L** document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- **O** document referring to an oral disclosure, use, exhibition or other means
- **P** document published prior to the international filing date but later than the priority date claimed
- **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
- **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
- **Y** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- **&** document member of the same patent family

**Date of the actual completion of the international search**
- 26 August 2011 (26.08.2011)

**Date of mailing of the international search report**
- 02 SEP 2011

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