

Title (en)

Process for the oxidation of olefins using molybdenum containing catalysts containing various promoter elements.

Title (de)

Verfahren zur Oxydation von Olefinen unter Verwendung von Katalysatoren, die Molybdän und verschiedene Promotoren enthalten.

Title (fr)

Procédé d'oxydation d'oléfines avec utilisation de catalyseurs contenant du molybdène et différents éléments promoteurs.

Publication

EP 0000663 A1 19790207 (EN)

Application

EP 78300199 A 19780725

Priority

US 81973377 A 19770728

Abstract (en)

Iron-bismuth-molybdate catalysts further containing specific promoter elements have been found to exhibit excellent redox stability even under high stress conditions in the catalytic oxidation of olefins to unsaturated aldehydes and acids.

IPC 1-7

C07C 45/04; B01J 23/88; B01J 27/02; B01J 27/18; C07C 47/20; C07C 47/22; C07C 51/32; C07C 57/04

IPC 8 full level

B01J 23/88 (2006.01); B01J 23/89 (2006.01); B01J 27/057 (2006.01); B01J 27/186 (2006.01); C07C 45/35 (2006.01); C07C 51/25 (2006.01)

CPC (source: EP)

B01J 23/88 (2013.01); B01J 23/888 (2013.01); B01J 23/8885 (2013.01); B01J 23/8993 (2013.01); B01J 27/0576 (2013.01); B01J 27/186 (2013.01); C07C 45/35 (2013.01); C07C 51/252 (2013.01); B01J 2523/00 (2013.01)

C-Set (source: EP)

1. **C07C 45/35 + C07C 47/22**
2. **C07C 51/252 + C07C 57/04**
3. **B01J 2523/00 + B01J 2523/13 + B01J 2523/54 + B01J 2523/67 + B01J 2523/68 + B01J 2523/69 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
4. **B01J 2523/00 + B01J 2523/13 + B01J 2523/42 + B01J 2523/54 + B01J 2523/68 + B01J 2523/69 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
5. **B01J 2523/00 + B01J 2523/13 + B01J 2523/53 + B01J 2523/54 + B01J 2523/68 + B01J 2523/72 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
6. **B01J 2523/00 + B01J 2523/13 + B01J 2523/51 + B01J 2523/54 + B01J 2523/67 + B01J 2523/68 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
7. **B01J 2523/00 + B01J 2523/13 + B01J 2523/42 + B01J 2523/51 + B01J 2523/54 + B01J 2523/68 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
8. **B01J 2523/00 + B01J 2523/13 + B01J 2523/17 + B01J 2523/54 + B01J 2523/68 + B01J 2523/69 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
9. **B01J 2523/00 + B01J 2523/13 + B01J 2523/17 + B01J 2523/43 + B01J 2523/54 + B01J 2523/68 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
10. **B01J 2523/00 + B01J 2523/13 + B01J 2523/54 + B01J 2523/67 + B01J 2523/68 + B01J 2523/72 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
11. **B01J 2523/00 + B01J 2523/13 + B01J 2523/54 + B01J 2523/67 + B01J 2523/68 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
12. **B01J 2523/00 + B01J 2523/13 + B01J 2523/53 + B01J 2523/54 + B01J 2523/68 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
13. **B01J 2523/00 + B01J 2523/13 + B01J 2523/3712 + B01J 2523/54 + B01J 2523/68 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
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15. **B01J 2523/00 + B01J 2523/13 + B01J 2523/42 + B01J 2523/54 + B01J 2523/68 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
16. **B01J 2523/00 + B01J 2523/13 + B01J 2523/305 + B01J 2523/54 + B01J 2523/68 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
17. **B01J 2523/00 + B01J 2523/13 + B01J 2523/43 + B01J 2523/54 + B01J 2523/68 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
18. **B01J 2523/00 + B01J 2523/13 + B01J 2523/22 + B01J 2523/51 + B01J 2523/54 + B01J 2523/68 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**
19. **B01J 2523/00 + B01J 2523/13 + B01J 2523/22 + B01J 2523/54 + B01J 2523/68 + B01J 2523/69 + B01J 2523/842 + B01J 2523/845 + B01J 2523/847**

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Designated contracting state (EPC)

BE CH DE FR GB NL

DOCDB simple family (publication)

EP 0000663 A1 19790207; EP 0000663 B1 19811021; AT 359055 B 19801027; AT A551778 A 19800315; BR 7804848 A 19790410;
CA 1133505 A 19821012; DD 140034 A5 19800206; DE 2861192 D1 19811224; ES 472082 A1 19790416; IN 148201 B 19801129;
IT 1118241 B 19860224; IT 7826141 A0 19780726; NO 151083 B 19841029; NO 151083 C 19850206; NO 782583 L 19790130;
PT 68313 A 19780801; RO 75319 A 19801130; YU 182978 A 19820831

DOCDB simple family (application)

EP 78300199 A 19780725; AT 551778 A 19780728; BR 7804848 A 19780727; CA 306381 A 19780628; DD 20689578 A 19780724;
DE 2861192 T 19780725; ES 472082 A 19780727; IN 516DE1978 A 19780711; IT 2614178 A 19780726; NO 782583 A 19780727;
PT 6831378 A 19780718; RO 9481878 A 19780727; YU 182978 A 19780728