

Title (en)
PROCESS FOR THE PREPARATION OF CYCLOHEXANOL AND CYCLOHEXANONE

Title (de)
VERFAHREN ZUR HERSTELLUNG VON CYCLOHEXANOL UND CYCLOHEXANON

Title (fr)
PROCEDE POUR LA PREPARATION DE CYCLOHEXANOL ET DE CYCLOHEXANONE

Publication
EP 1805125 A1 20070711 (EN)

Application
EP 05792072 A 20050930

Priority
• NL 2005000711 W 20050930
• EP 04077966 A 20041027
• EP 05792072 A 20050930

Abstract (en)
[origin: WO2006046852A1] The invention relates to a process for the preparation of cyclohexanol and cyclohexanone from benzene whereby the process comprises the following steps: a. a partial hydrogenation step wherein benzene in the presence of a metal catalyst is partially hydrogenated producing a mixture comprising cyclohexene and unconverted benzene, b. a step wherein a mixture as produced in step a is hydrated producing a mixture comprising cyclohexanol and/or oxidized in the presence of a metal catalyst producing a mixture comprising cyclohexanone or a mixture comprising cyclohexanol and cyclohexanone, c. a step wherein cyclohexanol and/or cyclohexanone is separated from the mixture obtained in step b comprising unconverted benzene, cyclohexanol and/or cyclohexanone, d. a hydrogenation step wherein a mixture comprising unconverted benzene as obtained in step c is hydrogenated in the presence of a metal catalyst into cyclohexane and e. an oxidation step wherein a mixture as produced in step d comprising cyclohexane is oxidized producing a mixture comprising cyclohexanol and cyclohexanone.

IPC 8 full level
C07C 45/34 (2006.01); **C07C 5/10** (2006.01); **C07C 29/04** (2006.01); **C07C 45/39** (2006.01)

CPC (source: EP)
C07C 29/04 (2013.01); **C07C 29/50** (2013.01); **C07C 45/33** (2013.01); **C07C 45/34** (2013.01); **C07C 45/53** (2013.01); **C07C 407/00** (2013.01); **C07C 409/14** (2013.01); **C07C 2601/14** (2017.04)

C-Set (source: EP)
1. **C07C 45/33 + C07C 49/403**
2. **C07C 45/34 + C07C 49/403**
3. **C07C 45/53 + C07C 49/403**
4. **C07C 29/04 + C07C 35/08**
5. **C07C 29/50 + C07C 35/08**
6. **C07C 407/00 + C07C 409/14**

Citation (search report)
See references of WO 2006046852A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2006046852 A1 20060504; CN 101048358 A 20071003; CN 101048358 B 20100505; EA 011769 B1 20090630; EA 200700950 A1 20071026; EP 1805125 A1 20070711; JP 2008518001 A 20080529; TW 200626535 A 20060801; UA 95064 C2 20110711

DOCDB simple family (application)
NL 2005000711 W 20050930; CN 200580036979 A 20050930; EA 200700950 A 20050930; EP 05792072 A 20050930; JP 2007538839 A 20050930; TW 94137487 A 20051026; UA A200705840 A 20050930