

Title (en)  
HYDROGENATION PROCESS

Publication  
**EP 0195539 A3 19880330 (EN)**

Application  
**EP 86301399 A 19860227**

Priority  
US 71477785 A 19850322

Abstract (en)  
[origin: EP0195539A2] Active sulfur compounds, especially thiols and thiophenols are effective catalysts for hydrogen transfer reactions, catalyzing the transfer of hydrogen from aliphatic and alkylaromatic compounds. A preferred hydrogen donor is shale oil which may be used as the donor solvent in a coal liquefaction process in which a thiol or thiophenol is used as a catalyst to promote transfer of hydrogen from the shale oil to the coal.

IPC 1-7  
**C10G 1/06**

IPC 8 full level  
**C10G 1/06** (2006.01); **C10G 1/04** (2006.01); **C10G 1/08** (2006.01)

CPC (source: EP)  
**C10G 1/042** (2013.01); **C10G 1/086** (2013.01)

Citation (search report)  
• [A] DE 2823812 A1 19781221 - MOBIL OIL CORP  
• [A] US 443321 A 18901223  
• [E] EP 0175511 A1 19860326 - MOBIL OIL CORP [US]

Designated contracting state (EPC)  
AT BE CH DE FR GB IT LI NL

DOCDB simple family (publication)  
**EP 0195539 A2 19860924; EP 0195539 A3 19880330; AU 5375486 A 19860925; AU 579005 B2 19881110; BR 8601234 A 19861202; JP S61221290 A 19861001; ZA 861698 B 19871028**

DOCDB simple family (application)  
**EP 86301399 A 19860227; AU 5375486 A 19860219; BR 8601234 A 19860320; JP 6106386 A 19860320; ZA 861698 A 19860306**