

Title (en)  
In situ coal gasification.

Title (de)  
In-situ-Kohlevergasung.

Title (fr)  
Gazéification de charbon in situ.

Publication  
**EP 0045420 A1 19820210 (EN)**

Application  
**EP 81105639 A 19810717**

Priority  
US 17447080 A 19800801

Abstract (en)  
In an injection well for underground gasification of carbonaceous materials, either liquids or solids, by partial combustion with oxygen-rich gas in the presence of a moderating fluid such as steam, air, CO<sub>2</sub> or the like, in which the moderating fluid is introduced through an annular path (16) surrounding the injection tube (14) through which the oxygen-rich gas is injected, back flow of gasification products from the well is prevented by providing a flow restriction (18) in the annular path (16) to increase the linear flow velocity of the moderating fluid while maintaining the designed mass flow rate of said moderating fluid. The flow restriction (18) is so designed that the downward flow velocity of said moderating fluid downstream of the restriction corresponds to the formula:  $V_p = Y \sqrt{2gD}$  wherein g is the gravity constant, D is the diameter of the well casing (12) and y is greater than one.

IPC 1-7  
**E21B 43/243**; **E21B 43/12**

IPC 8 full level  
**E21B 43/28** (2006.01); **E21B 43/12** (2006.01); **E21B 43/243** (2006.01)

CPC (source: EP)  
**E21B 43/12** (2013.01); **E21B 43/243** (2013.01)

Citation (search report)

- US 4037660 A 19770726 - NEWSOM WILLIAM D, et al
- US 4050515 A 19770927 - HAMRICK JOSEPH T, et al
- US 2958380 A 19601101 - ALFRED SCHILD
- DE 2533532 A1 19770210 - KROMSCHROEDER AG G

Cited by  
CN107178351A; CN103556979A; CN101864942A; EP0088823A1; CN102486085A

Designated contracting state (EPC)  
AT BE DE FR GB IT LU NL SE

DOCDB simple family (publication)  
**EP 0045420 A1 19820210**; AU 7317981 A 19820204; BR 8104962 A 19820420; JP S5753592 A 19820330; ZA 815182 B 19820825

DOCDB simple family (application)  
**EP 81105639 A 19810717**; AU 7317981 A 19810722; BR 8104962 A 19810731; JP 12003981 A 19810801; ZA 815182 A 19810729