

Title (en)

Power recovery process using recuperative heat exchange.

Title (de)

Verfahren zur Energierückgewinnung unter Verwendung von rekuperativem Wärmeaustausch.

Title (fr)

Procédé de récupération de l'énergie par l'utilisation de l'échange récupératif de chaleur.

Publication

**EP 0105939 A1 19840425 (EN)**

Application

**EP 82109269 A 19821007**

Priority

EP 82109269 A 19821007

Abstract (en)

A process is disclosed for recovering mechanical energy from a particle-containing pressurized high temperature gas stream such as the flue gas stream of an FCC regenerator. Heat is removed from the gas stream in two different indirect heat exchangers (6, 8) in series flow and the gas stream is then scrubbed by contact (9) with a liquid to remove entrained particles. The gas stream is then reheated by exchange against itself in the second heat exchanger (8) and depressurized in a power recovery expander (13) which produces useful mechanical energy. The scrubbed gas stream may be further heated in the FCC regenerator or some other high temperature location prior to being depressurized in the power recovery expander.

IPC 1-7

**F01K 23/10**; F23J 15/00

IPC 8 full level

**C10G 11/18** (2006.01); **F01K 23/06** (2006.01); **F23J 15/04** (2006.01)

CPC (source: EP)

**C10G 11/185** (2013.01); **F01K 23/064** (2013.01); **F23J 15/04** (2013.01)

Citation (search report)

- [X] DE 2924245 A1 19801218 - RHEINISCHE BRAUNKOHLNW AG
- [A] DE 2733029 A1 19790208 - STEAG AG [DE]
- [AD] US 3076769 A 19630205 - PFEIFFER ROBERT W
- [AD] US 4208384 A 19800617 - MITCHELL NORRIS W [US]

Cited by

FR2939693A1; CN100446839C; KR101274762B1; US8784760B2; US7597748B2; WO2010070212A1; WO2005002711A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**EP 0105939 A1 19840425**

DOCDB simple family (application)

**EP 82109269 A 19821007**