

Title (en)

A method and apparatus for desulfurization of coal.

Title (de)

Verfahren und Vorrichtung zur Entschwefelung von Kohlen.

Title (fr)

Procédé et dispositif pour la désulfuration de charbon.

Publication

**EP 0295345 A1 19881221 (EN)**

Application

**EP 87305399 A 19870618**

Priority

EP 87305399 A 19870618

Abstract (en)

A process and apparatus for desulfurizing coal which removes sulfur in the inorganic and organic form by preferentially heating the inorganic iron sulfides in coal in a flowing gas to convert some of the inorganic iron sulfides from a pyrite form  $\text{FeS}_2$  to a troilite  $\text{FeS}$  form or a pyrrhotite form  $\text{Fe}_{1-x}\text{S}$  and release some of the sulfur as a gaseous compound. The troilite and pyrrhotite forms are convenient catalyst for removing the organic sulfur in the next step, which is to react the coal with chemical agents such as alcohol, thus removing the organic sulfur as a liquid or a gas such as  $\text{H}_2\text{S}$ . The remaining inorganic sulfur is left in the predominantly higher magnetic form of pyrrhotite and is then removed by magnetic separation techniques. Optionally, an organic flocculant may be added after the organic sulfur has been removed and before magnetic separation. The flocculant attaches non-pyrite minerals with the pyrrhotite for removal by magnetic separation to reduce the ash-forming contents.

IPC 1-7

**C10L 9/00**

IPC 8 full level

**C10L 9/02** (2006.01)

CPC (source: EP)

**C10L 9/02** (2013.01)

Citation (search report)

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