

Title (en)  
APPARATUS AND METHOD FOR FROTH FLOTATION SEPARATION

Publication  
**EP 0057445 B1 19870805 (EN)**

Application  
**EP 82100636 A 19820129**

Priority  
• US 23005881 A 19810129  
• US 23005981 A 19810129

Abstract (en)  
[origin: EP0057445A2] A method and apparatus for froth flotation separation of the components of a slurry, having particular utility for the beneficiation of coal by the flotation separation of coal particles from impurities associated therewith such as ash and sulfur. A spray nozzle (16) is positioned above a flotation tank (12) having a liquid bath therein, and sprays an input slurry through an aeration zone (19) into the surface (14) of the liquid. The spraying operation creates a froth (17) on the liquid surface (14) in which a substantial quantity of particulate matter is floating, while other components of the slurry sink into the liquid. A skimming arrangement (28) preferably skims the froth (17) from the surface (14) as a cleaned or beneficiated product. Moreover, a recycling operation may be provided wherein particulate materials which do not float after being sprayed through the input spray nozzle (18) to provide a second opportunity for recovery of the recycled particles.

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**B03D 1/14; C10L 9/00**

IPC 8 full level  
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CPC (source: EP)  
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Cited by  
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