Title (en)

Process for the drying and calcination of bulk materials.

Title (de)

Verfahren zum Trocknen und Kalzinieren von Schüttgütern.

Title (fr)

Procédé de séchage et de calcination de matériaux en vrac.

Publication

EP 0030403 A1 19810617 (DE)

Application

EP 80201140 A 19801202

Priority

DE 2949479 A 19791208

Abstract (en)

[origin: ES8200234A1] A process for drying and/or calcining bulk material in a rotary kiln when hot gases are passed countercurrent to the flow of bulk material thereto, and the bulk material is dried and/or calcined in the rotary kiln is disclosed. According to the invention, the bulk material is dried and/or calcined, as it passes from the feed end of the rotary kiln to the discharge end thereof, by contacting the same with hot gases and thereafter, as the bulk material passes towards the discharge end of the rotary kiln, the bulk material is heated by indirect heat exchange with such hot gases. An apparatus for carrying out such process is also disclosed. The apparatus is a rotary kiln equipped with a centrally disposed tube, disposed axially within the rotary kiln toward the bulk material discharge end of the rotary kiln whereby an annular space is defined between the outer wall of the central tube and inner wall of the rotary kiln. The apparatus is equipped with means for passing hot gases within the central tube, means for passing bulk material on the outer wall of the central tube whereby the bulk material can be heated by indirect heat exchange with hot gases within the tube.

Abstract (de)

Das Schüttgut 16 wird in einem Drehrohr 1 in den an das Beschickungsende anschliessenden Teil zunächst im Gegenstrom zu heissen Gasen geführt und durch direkten Wärmeaustausch getrocknet und gegebenenfalls vorkalziniert. Im anschliessenden Teil des Drehrohrs 1 ist in der Kalzinierzone ein Einschubkörper 3 angeordnet, der zwischen seiner Oberfläche und dem Drehrohr 1 einen ringförmigen Raum bildet. In diesen ringförmigen Raum wird das getrocknete Schüttgut transportiert und weitgehend auf der Oberfläche des Einschubkörpers 3 durch indirekten Wärmeaustausch kalziniert. In den Einschubkörper 3 werden heisse Gase 7 geleitet und strömen aus ihm in das Drehrohr 1.

IPC 1-7

F27B 7/34; F26B 11/04; F27B 7/16; F27B 7/20

IPC 8 full level

B01J 6/00 (2006.01); **F26B 3/00** (2006.01); **F26B 3/24** (2006.01); **F26B 11/02** (2006.01); **F26B 11/04** (2006.01); **F27B 7/16** (2006.01); **F27B 7/20** (2006.01); **F27B 7/34** (2006.01)

CPC (source: EP US)

F26B 3/00 (2013.01 - EP US); **F26B 3/24** (2013.01 - EP US); **F26B 11/028** (2013.01 - EP US); **F27B 7/16** (2013.01 - EP US); **F27B 7/34** (2013.01 - EP US)

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