

Title (en)
Mixing and dispersing device

Title (de)
Misch- und Ausgabevorrichtung

Title (fr)
Dispositif de mélange et de dispersion

Publication
EP 2609999 A1 20130703 (EN)

Application
EP 12194955 A 20121130

Priority
JP 2011283053 A 20111226

Abstract (en)
A mixing and dispersing device is provided with ante-mixing rotary vanes (130) and post-mixing rotary vanes (150). The ante-mixing rotary vanes (130) are rotatably arranged in a fluidity material side area (E1) and send fluidity material drawn from a radial inside thereof to a first-stage mixing area (E3) being radially outside of a partition plate (120) and induce powder material in a powder side area (E2) to the first-stage mixing area (E3). The post-mixing rotary vanes (150) are arranged in a second-stage mixing area (E4) that is on a downstream side of the first-stage mixing area (E3) and that differs from the first-stage mixing area (E3) in an axial direction, and disperse mixed material of the fluidity material and the powder material flowing from the first-stage mixing area (E3) to the second-stage mixing area (E4) to send out the mixed material to a discharge port (113) being radially outside thereof.

IPC 8 full level
B01F 25/64 (2022.01); **B01F 25/74** (2022.01)

CPC (source: EP)
B01F 23/53 (2022.01); **B01F 25/741** (2022.01); **B01F 25/743** (2022.01); **B01F 27/2711** (2022.01); **B01F 33/821** (2022.01); **B01F 2025/915** (2022.01)

Citation (applicant)
• JP 2010033786 A 20100212 - MITSUI MINING & SMELTING CO
• JP 4458536 B2 20100428
• JP 2011052638 A 20110317 - TEIKOKU DENKI SEISAKUSHO KK

Citation (search report)
• [XA] DE 2031836 A1 19711230 - DRAISWERKE GMBH
• [A] EP 0320480 A1 19890614 - IVARSON NEMO
• [A] DE 2216986 A1 19721109
• [A] JP H01262935 A 19891019 - KIBUN KK
• [A] EP 0688598 A1 19951227 - DOW CORNING TORAY SILICONE [JP]
• [A] GB 2169814 A 19860723 - HUNKEN KK
• [A] EP 1210973 A1 20020605 - DOW CORNING TORAY SILICONE [JP]

Cited by
CN111701449A; US10895114B2; US11453146B2; US10137420B2; DE102015105247A1; CN106457178A; EP3110539A4; DE102015105247B4; US10633174B2; US10625933B2; US11819810B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2609999 A1 20130703; CN 103170261 A 20130626; JP 2013132572 A 20130708

DOCDB simple family (application)
EP 12194955 A 20121130; CN 10210530127 A 20121210; JP 2011283053 A 20111226