

PROCESS AND DEVICE FOR PREPARING SINTERED MATERIALS OF GRADUAL POROUS STRUCTURE BY GRAVITATIONAL SETTLING OF POWDERS

Patent Number(s): RO128489-A2 ; RO128489-B1

Inventor(s): [VIDA-SIMITIL](#), [THALMAIER G](#), [MOLDOVAN V](#), [SECHELA N](#), [NASCA O](#)

Patent Assignee Name(s) and Code(s): UNIV CLUJ-NAPOCA TEHNICA (UYCL-Non-standard)

Derwent Primary Accession Number: 2013-L53497

Abstract: NOVELTY - The invention relates to a process and a device for preparing sintered materials of gradual porosity by gravitational settling of powders, intended to be used as filtering elements or porous membranes for various industrial and medical applications. According to the invention, the process consists in previously dispersing the metallic powder mass into distilled water, after which it is poured into the settling enclosure (2) containing distilled water and a dispergation agent, the settling taking place inside a mould (6), then the settled material is dried in an oven, for 1 h, at a temperature of 110 degrees C, and sintered in sintering furnaces at technological parameters depending on the nature of the sintered material and the desired sintering degree. The device, as claimed by the invention, consists of four settling enclosures in the form of glass columns (2) which are fixed and sealed between the lower cap (3) and the upper cap (4), and four moulds (6) with water draining orifices.

[Show Documentation Abstract](#)

International Patent Classification: [B01D-071/02](#); [C04B-038/00](#); [B22F-003/00](#); [C25D-005/00](#)

Derwent Class Code(s): [J01](#) (Separation - including evaporation, crystallisation, solvent extraction, chromatography, dialysis, osmosis including drying gases and/or vapours, and separation of solids from gases, liquids and other solids. Isotope separation, filter materials (including molecular sieves for separation), and centrifuges (except where used for analysis) (B01D, B03, B04, B07B).); [L02](#) (Refractories, ceramics, cement - includes manufacturing methods, limes, soil preparation for (road) building, magnesias and slags, cements, mortars, concretes, abrasives, thermal or acoustic insulation (non)oxide ceramics and ceramic composites, but not brick making, concrete mixers or casting or potters'™ wheels (C04).)

Derwent Manual Code(s): [J01-C03](#); [L02-A02](#); [L02-A04](#); [L02-K02](#)

Patent Details:

Patent Number	Publ. Date	Main IPC	Week	Page Count	Language
RO128489-A2	28 Jun 2013	B01D-071/02	201349		Romanian
RO128489-B1	27 Apr 2018	B22F-003/00	201830		English

Application Details:

RO128489-A2	RO001253	28 Nov 2011
RO128489-B1	RO001253	28 Nov 2011

Priority Application Information and Date:

RO001253	28 Nov 2011
----------	-------------