

Title (en)
PROCESS FOR PRODUCING A POROUS GLASS AND GLASS POWDER AND GLASS MATERIAL FOR CARRYING OUT THE PROCESS

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES PORÖSEN GLASES UND GLASPULVERS UND GLASWERKSTOFF ZUM AUSFÜHREN DES VERFAHRENS

Title (fr)
PROCÉDÉ DE FABRICATION D'UN VERRE POREUX ET DE POUDRE DE VERRE ET MATÉRIAU DE VERRE DESTINÉ A LA MISE EN UVRE DE CE PROCÉDÉ

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EP 1986969 A1 20081105 (DE)

Application
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Abstract (en)
[origin: WO2007098778A1] The invention relates to a process for producing a porous glass and glass powder using a partial Vycor process on an alkali metal borosilicate glass material. The process is characterized in that an addition of metal oxides and/or rare earth metal oxides in variable proportions of from 0.05 to 15 per cent by mass is carried out on the alkali metal borosilicate glass material during the course of the Vycor process, with a doping incorporation of the metal oxides and/or the rare earth metal oxides into the resulting SiO₂ matrix with an increase in the optical index of refraction of the porous glass being brought about during the Vycor process, and an opposed jet milling process is employed in combination with a ceramic sifter wheel in a subsequent dry milling process, with classification of the porous glass particles produced which have a size range of less than 15 µm being carried out. The porous glass material is characterized by a ternary SiO₂ - B₂O₃ - Na₂O base mixture having an adjustable optical index fraction in a material composition having the following variable proportions of metal and lanthanide oxides: 0.001 - 0.1% by mass of Fe₂O₃, 0.01 - 0.2% by mass of MgO, 0.05 - 15% by mass of ZrO₂, 0.5 - 15% by mass of La₂O₃, 0.5 - 15% by mass of WO₃, 0.5 - 15% by mass of TiO₂.

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