

Title (en)
PROCESS FOR PREPARING A BOROSILICATE GLASS CONTAINING NUCLEAR WASTES

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Application
EP 87400752 A 19870406

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FR 8605010 A 19860408

Abstract (en)
[origin: US4797232A] The invention relates to a process for the preparation of a borosilicate glass containing nuclear waste. In this process, an inactive borosilicate matrix is prepared in an aqueous medium by mixing the following: a silica-based gel precursor, a concentrated aqueous solution of a boron compound, and a concentrated aqueous solution of the vitrification adjuvant, in proportions corresponding to the composition of the final glass minus the waste, with stirring at a high rate of shear, at a temperature of between 20 DEG C. and 80 DEG C., preferably at 65 DEG -70 DEG C., at an acid pH, preferably a pH of between 2.5 and 3.5, so as to form a gelled solution, and the said matrix is heat-treated and the nuclear waste is added at any stage during the said treatment to form, by melting, the final borosilicate glass containing the said waste. The process according to the invention is applied to the treatment of nuclear waste, especially to solutions of fission products.

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