

PREDICTION OF CRYSTALLINE PHASE PRECIPITATION IN HIGH-LEVEL NUCLEAR WASTE GLASS

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A thermochemical representation of the aluminoborosilicate glass system relevant for nuclear waste glass has been developed based on the associate species approach for the glass solution phase. Thermochemical data were assessed and associate species data determined for binary and ternary subsystems. The resulting representation of the oxide system was used to help understand the problem of crystalline phase precipitation in glass melters and specific waste glass formulations.

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