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Model for the enthalpy relaxation of hyperquenched glasses with different fragilities

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Differential scanning calorimetry (DSC) has proven to be a powerful tool in establishing the thermal history of glasses. In this presentation, we provide DSC observations on a range of hyperquenched and annealed glasses of compositions with different fragilities. The results are modeled satisfactorily by a slightly modified Narayanaswamy-Tool-Moynihan method. The model includes a two domain relaxation function and thereby a possible link to the equilibrium relaxation spectra of the liquids is suggested. The enthalpy relaxation spectra of the compositions show a clear dependence of fragility, which is also an outcome of the suggested model.