

# Characteristics of strong glass formers in charged microgel systems

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For molecular glass formers the dependence of the structural relaxation time  $\tau_\alpha$  on temperature strongly depends on the type of material used, which has led to the classification of strong and fragile glasses. Fragility expresses here by how much the temperature dependence  $\tau_\alpha$  deviates from a classical Arrhenius behavior. In strong glasses the system exhibits typical Arrhenius behavior, i.e.  $\tau_\alpha$  increases exponentially upon approach of the glass transition temperature  $T_g$ . By contrast, in fragile glasses  $\tau_\alpha$  diverges critically at  $T_g$ . Hard sphere colloidal systems are typical examples of fragile glasses, the parameter governing the glass transition being here the particle concentration. In this contribution we show that charged permeable colloids can exhibit the characteristics of strong glass formers. This is, however, not due to attractive trapping like in molecular systems, but rather to a repulsive particle interaction that decreases with increasing particle concentration.