

Glassglass transition during aging of a colloidal clay (100 words).

ANGELINI R. ⁽¹⁾⁽²⁾, ZACCARELLI E. ⁽¹⁾⁽²⁾, DE MELO MARQUES F.A. ⁽³⁾, SZTUCKI M. ⁽⁴⁾,
FLUERASU A. ⁽⁵⁾, RUOCCO G. ⁽²⁾⁽³⁾, RUZICKA B. ⁽¹⁾⁽²⁾

⁽¹⁾ *ISC-CNR, UOS Sapienza, Roma*

⁽²⁾ *Dipartimento di Fisica, Sapienza Università di Roma*

⁽³⁾ *Center for Life NanoScience, IIT@Sapienza, Roma*

⁽⁴⁾ *ESRF-The European Synchrotron, Grenoble, France*

⁽⁵⁾ *Brookhaven National Laboratory, NSLS-II, Upton, New York, NY, USA*

Recent advances in the study of soft materials have led in the last decades to a deeper knowledge of equilibrium and non-equilibrium states and to the discovery of new phases and transitions besides the ones commonly experienced in atomic or molecular systems. Among these glass-glass transitions are quite rare to be found, especially at ambient conditions. Here we report the evidence of a spontaneous glass-glass transition taking place during aging of a colloidal clay through a combination of dilution experiments, X-Ray Photon Correlation Spectroscopy, Small Angle X-ray Scattering and Monte Carlo simulations [1].

[1] R. Angelini et. al. Nat. Commun. 5, 4049(2014)