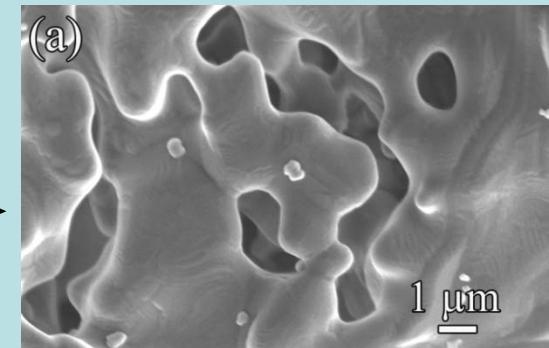
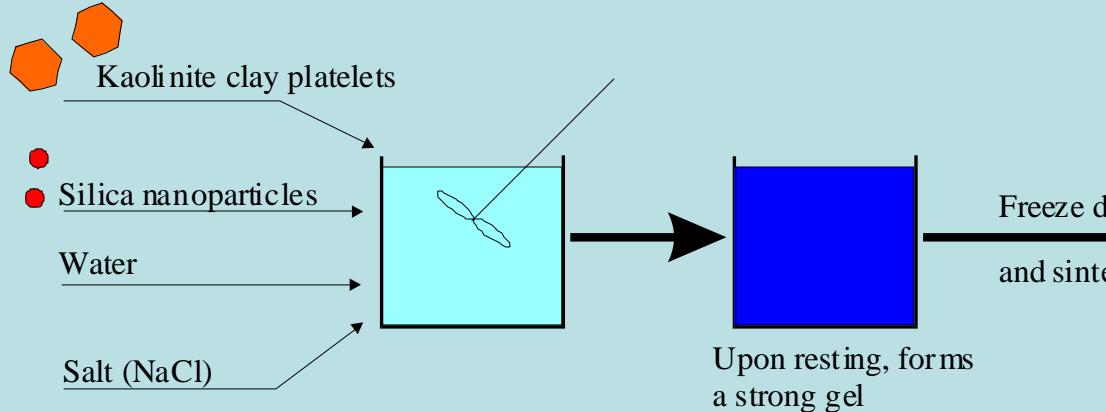


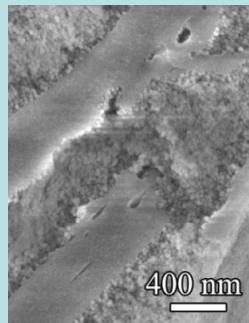
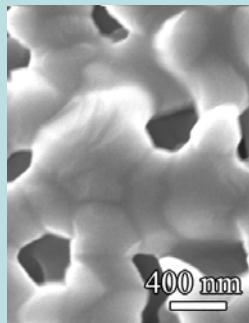
Stability Behavior of Clay/Nanoparticle Suspensions

John Y. Walz
Virginia Tech



At 1250°C, the silica and kaolinite sinter together

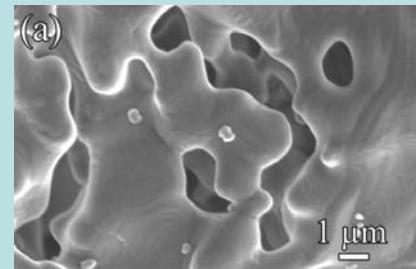
At 1000°C sintering, clay interferes with silica sintering



Left, pure silica particles sintered at 1000°C.

Right, silica plus kaolinite sintered at 1000°C.

Above 1200°C, however, materials sinter to form a new phase (sample at right contains silica and kaolinite)



Clay Platelets Significantly Improve Strength of Sintered Composite

