

## Crystal Growth in Colloids Due to Charge Induced Crystallization

YAMANAKA, Junpei<sup>1\*</sup>

<sup>1</sup>Nagoya City University, Graduate School of Pharmaceutical Sciences

Submicron sized charged colloidal particles dispersed in water self assemble into ordered crystal structures at sufficiently strong electrostatic interparticle interactions. Here we report the charge induced crystallization in dilute aqueous dispersions of colloidal silica by varying pH, and unidirectional crystal growths of the silica colloids under gradients of pH and temperature.

Keywords: colloid, charged colloidal particle, colloidal crystal, crystal growth, solid liquid interface, silica particle