

Nanoscopic Approach for Carbon Sequestration

TSUKAMOTO, Katsuo^{1*}, SATOH, Hisao², UEDA, Akira³, KIMURA, Yuki¹, ARAKI, Yuki¹, UETA, Shinzo²

¹Grad. School of Science, Tohoku Univ., ²Mitsubishi Materials, ³Fac. Science, Toyama Univ.

Growth mechanism of calcium carbonate crystals for carbon sequestration has been studied in-situ by FM-AFM, TEM and phase-shift interferometry, those of which have never been employed in this field. It was found that controlling polymorphs of calcium carbonate crystals is the key issue for the efficient sequestration.

Keywords: crystal growth, carbon sequestration, calcium carbonate