

Titanate nanotube thin films via alternate layer deposition

Hiromasa Tokudome and Masahiro Miyauchi

R&D center, TOTO Ltd., 2-8-1 Honson, Chigasaki, Kanagawa 253-8577, Japan.

E-mail: masahiro.miyauchi@toto.co.jp

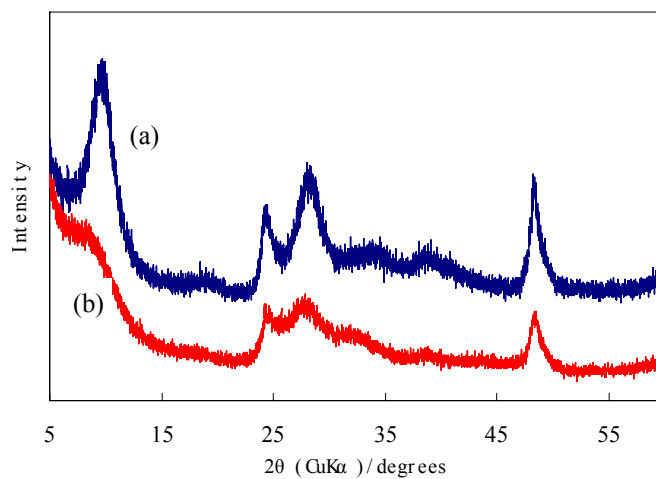


Fig.S1 XRD patterns of (a) as-prepared TNT and (b) TNT dispersed in aqueous TBAOH solution.

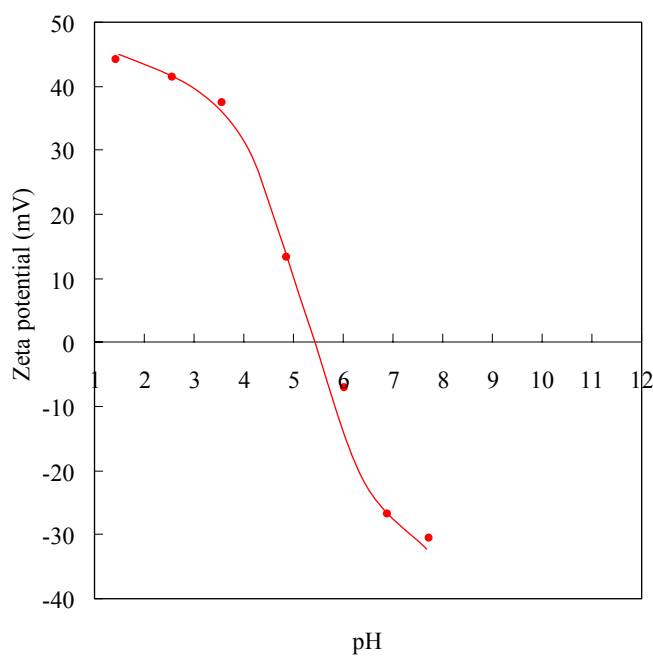


Fig.S2 Zeta potential of TNT colloid in aqueous solution.

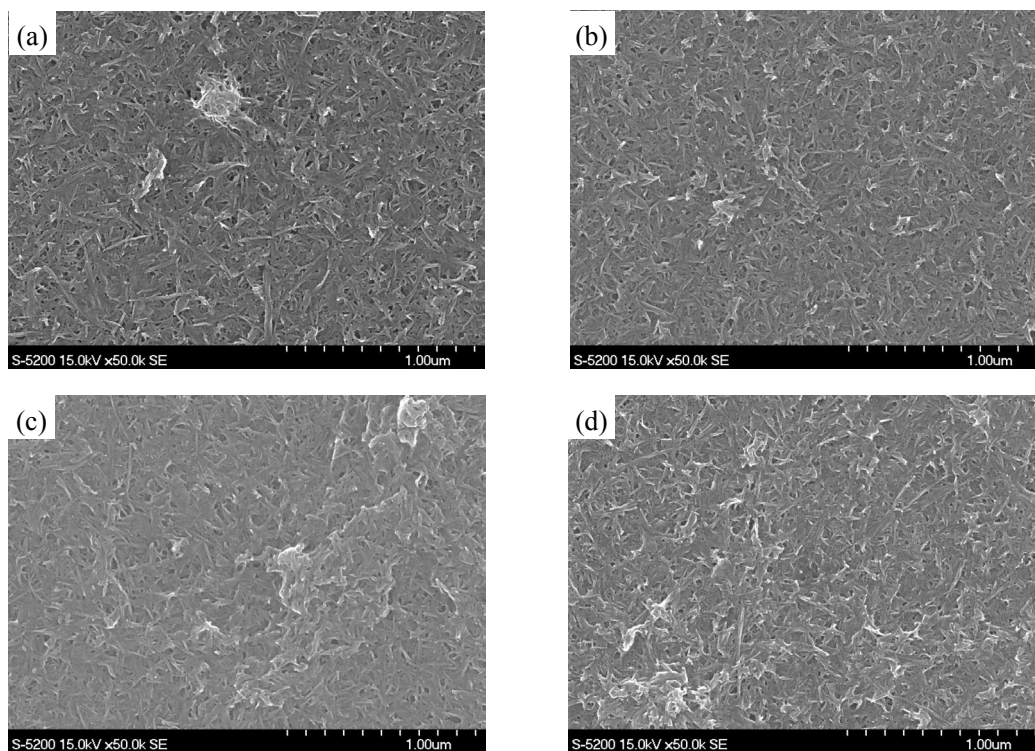


Fig.S3 Surface SEM images of PEI/(TNT/PDDA)₄TNT films: (a) as-deposited; (b) after UV irradiation, and PEI/(TNT/PDDA)₉TNT film: (c) as-deposited; (d) after UV irradiation.

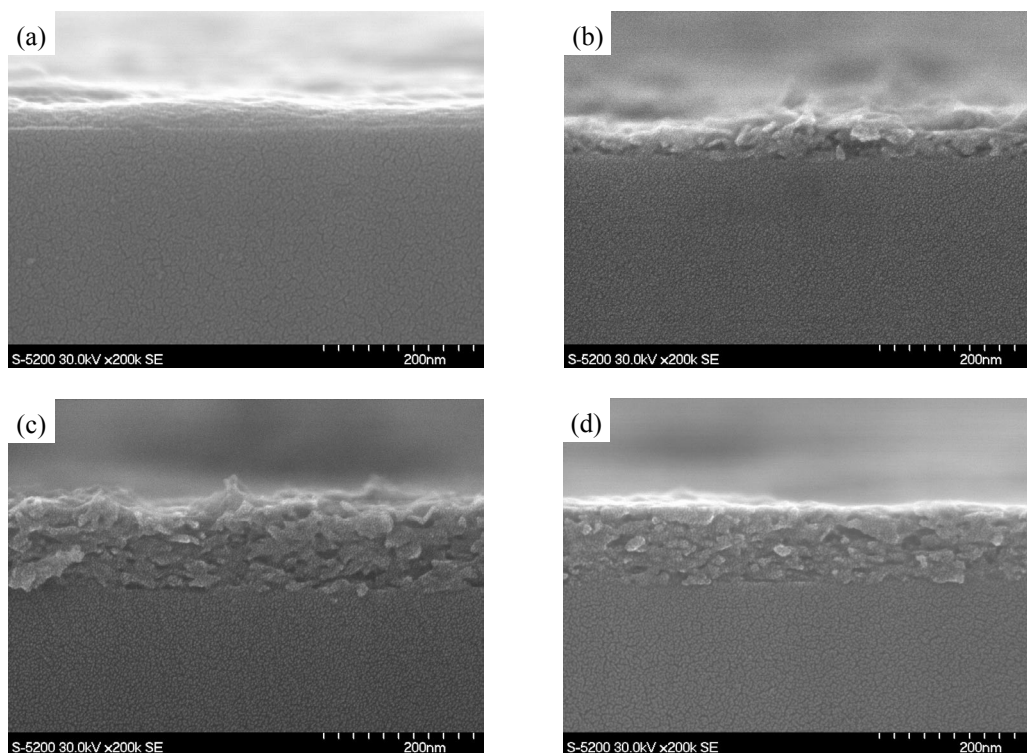


Fig.S4 Cross-sectional SEM images of PEI/(TNT/PDDA)₄TNT films: (a) as-deposited; (b) after UV irradiation, and PEI/(TNT/PDDA)₉TNT film: (c) as-deposited; (d) after UV irradiation.

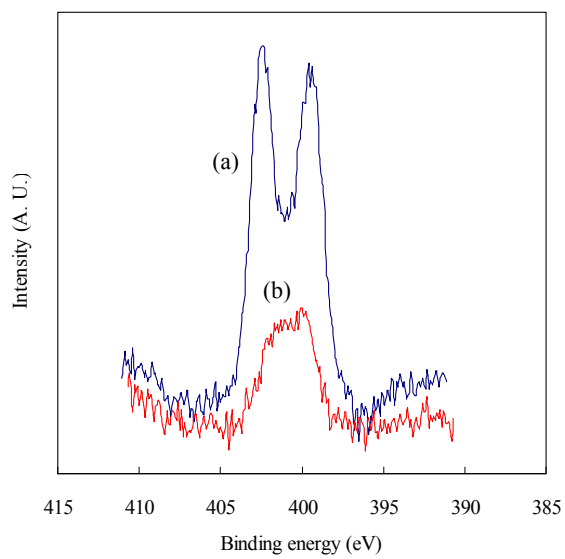


Fig.S5 XPS spectra for N-1s orbital of PEI(TNT/PDDA)₉TNT film, (a) before UV irradiation ; both of peaks at 400 and 403.3eV were assigned to polycation, and (b) after UV irradiation ; the peak at 401.5eV was assigned to NH₄⁺.