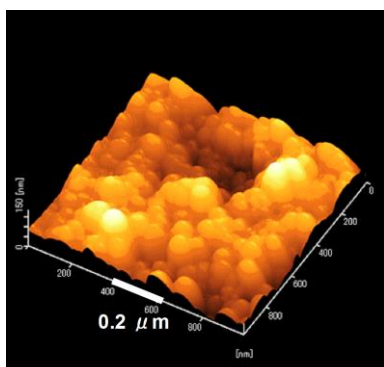


TiO₂ Paste, Oxide Paste, Conductive Carbon Paste, Carbon Nanotube Ink, Methyl Ammonium Iodide (MAI) for Dye Sensitized Solar Cell, Perovskite Solar Cell

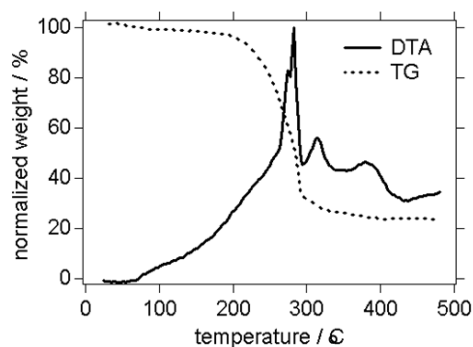
Recently, serious problem has been paying attention regarding energy and environmental issue in global level. One of the possibility to solve this problem is solar cell which utilizes solar energy into electricity. The type of solar cell can be classified as 6 kinds. Silicon base, chemical compound type, dye sensitized solar cell, organic polymer base, quantum dot solar cell, perovskite solar cell... Among them, dye sensitized solar cell and perovskite solar cell have been focused due to its cheap and easy manufacturing process and material cost. In addition, for example, TiO₂ film as the anode electrode for dye sensitized solar cell and perovskite solar cell, its film morphology, electric structure and surface states etc... influences much to the state of prepared TiO₂ film and eventually light to electricity energy conversion efficiency. That is why we focus on researching on TiO₂ paste, oxide paste (as n-type semiconductor or p-type semiconductor), conductive carbon ink, carbon nanotube ink for counter electrode and Methyl Ammonium Iodide (MAI) as the precursor of perovskite.

Below table indicates the comparison of the characteristic of dye sensitized solar cell prepared with our TiO₂ paste and other company TiO₂ paste. We will keep challenge to improve the material which can produce higher light to electricity energy efficiency.

sample	I (mA)	V (mV)	FF	conversion efficiency (%)
GS TiO ₂ Paste	9.72	687	0.554	3.7
Solaronix TiO ₂ paste	9.91	698	0.563	3.9



AFM image of GS TiO₂ film



TG-DTA result of GS TiO₂ paste