

Supporting Information

for

Metal Oxide Nanoparticles with Dopant-Segregation-Induced Core-Shell

Structure: Gas Sensing Properties

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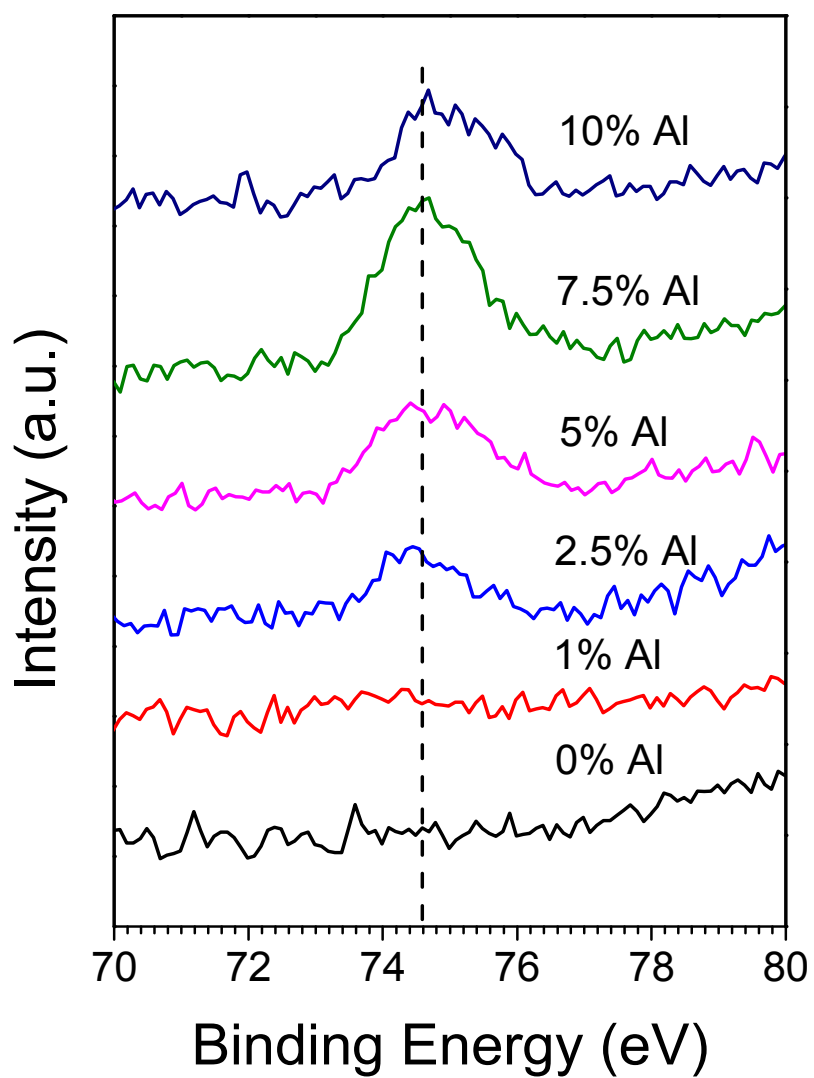


Figure S- 1 high-resolution XPS spectra at binding energies corresponding to the Al 2p.

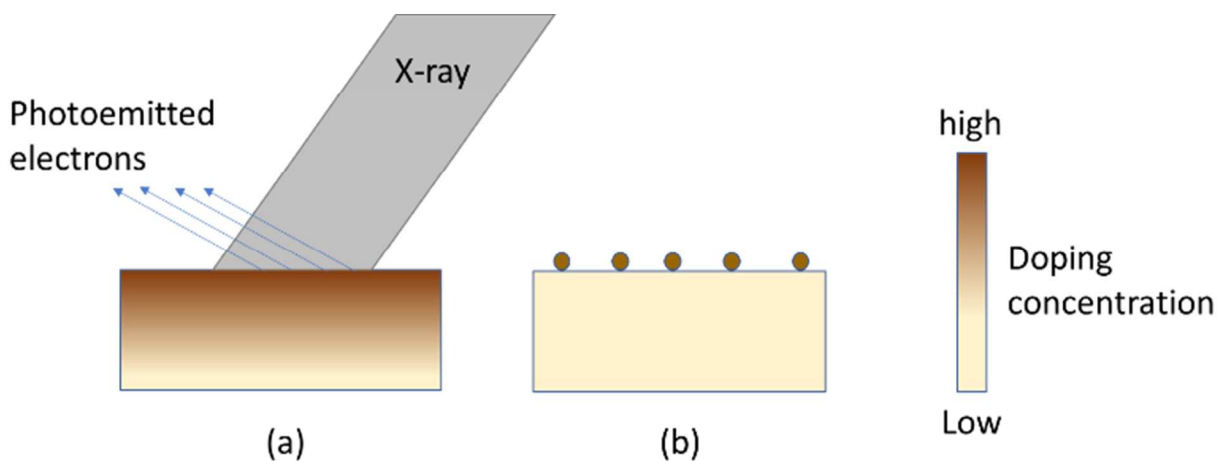


Figure S- 2 (a) high level of dopant segregation on the surface, therefore, the dopant concentration measured by XPS is much higher than theoretical doping concentration; (b) nucleation of Al-rich particles, surface with low dopant concentration exposed.

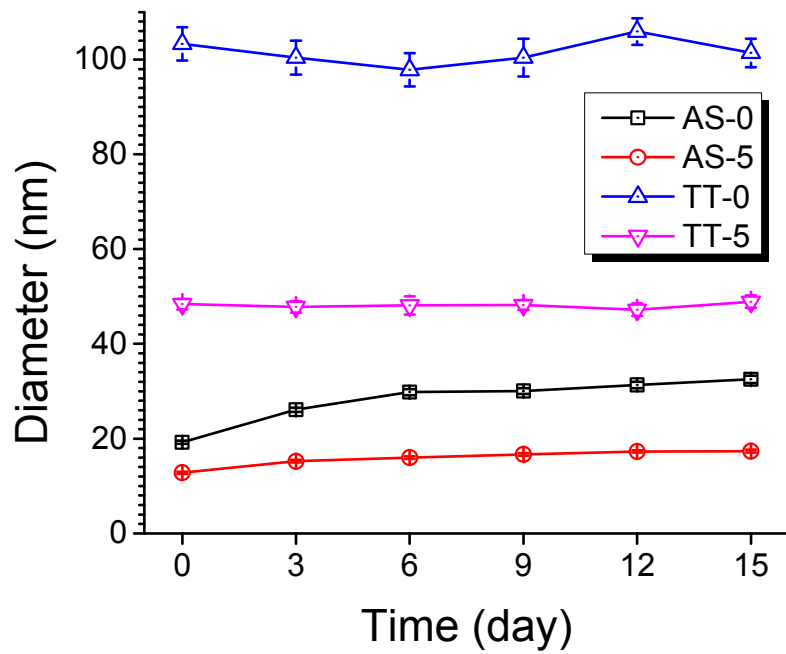


Figure S- 3 crystallite size of as-synthesized samples with 0 and 5 mol% doping concentration (AS-0 & AS-5) and thermally-treated samples with 0 and 5 mol% doping concentration (TT-0 & TT-5) as a function of time at 400 °C.

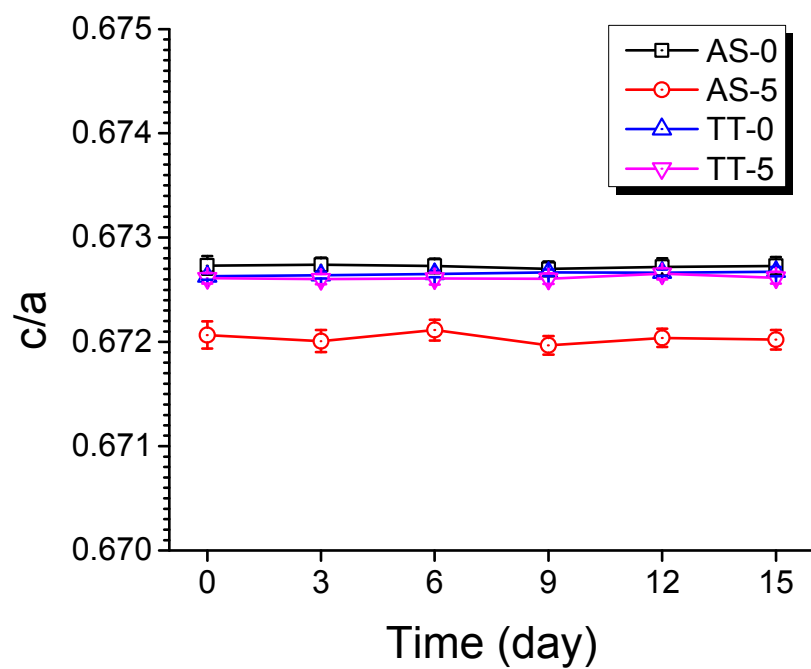


Figure S- 4 c/a ratio of as-synthesized samples with 0 and 5 mol% doping concentration (AS-0 & AS-5) and thermally-treated samples with 0 and 5 mol% doping concentration (TT-0 & TT-5) as a function of time at 400 °C.