

Supporting Information

Nitrogen-doped Metal-free Activated Carbon Catalysts for Aerobic Oxidation of Alcohols

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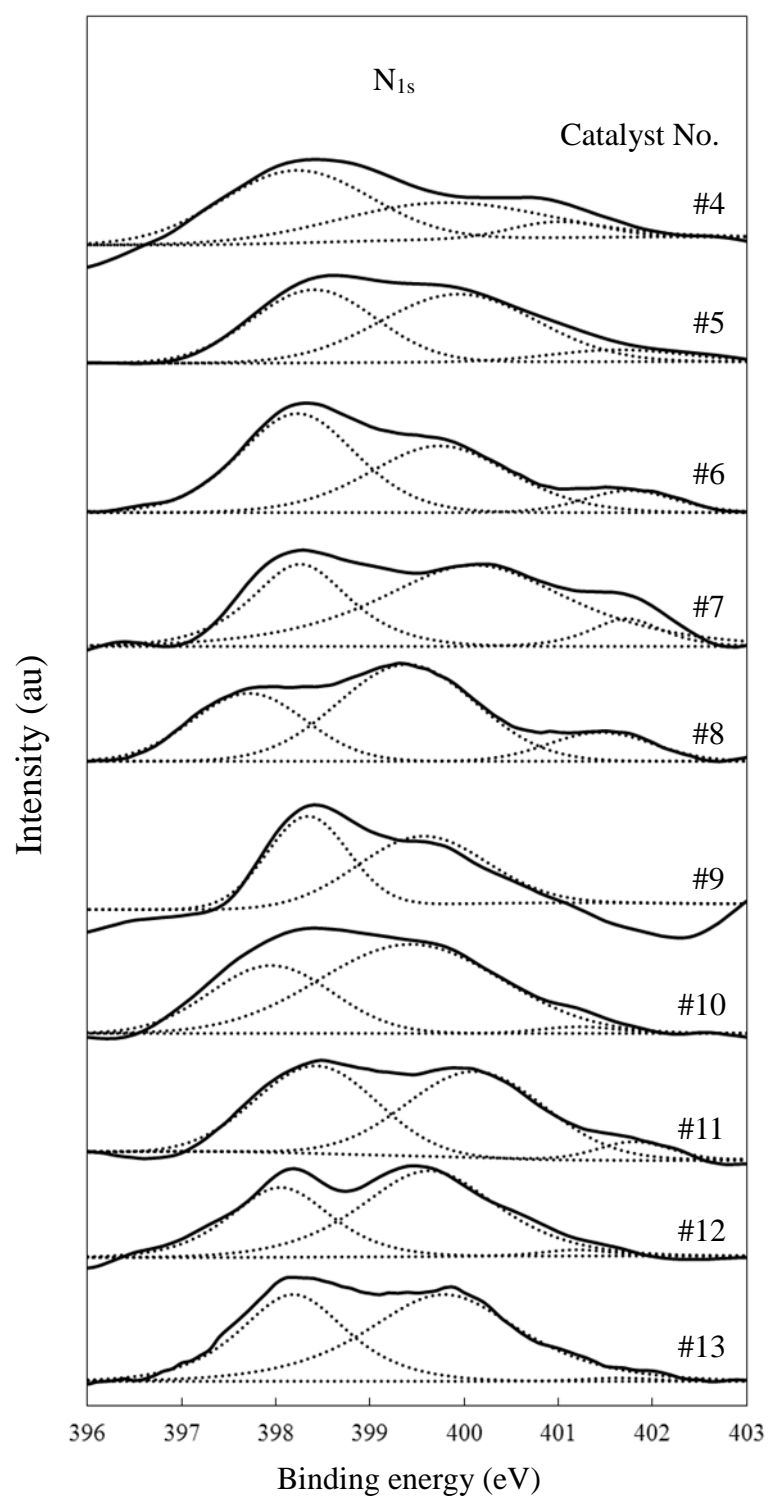


Figure S1. XPS spectra for nitrogen-doped AC materials of #4 - #13 given in Table 1

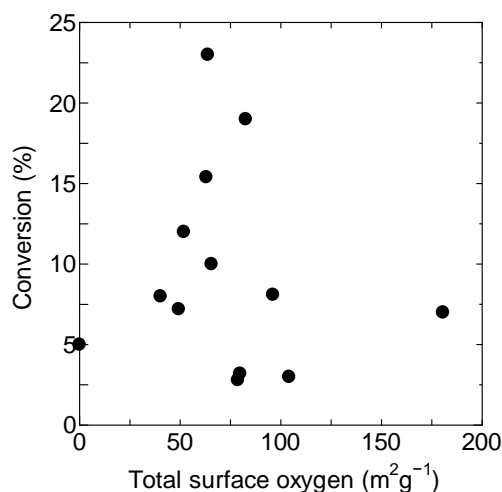


Figure S2. Plot of the conversion in aerobic oxidation of benzyl alcohol against the amount of oxygen species for various AC-based catalyst samples of #1 - #13 of Table 1. The amount of oxygen species in a sample was determined by the product of the surface concentration (mole fraction) of oxygen species measured by XPS and the BET surface area of the sample ($\text{m}^2 \text{g}^{-1}$). Reaction conditions: substrate 1.1 mmol, catalyst 100 mg, solvent (ethanol) 5 cm^3 , temperature 120°C, time 5 h.

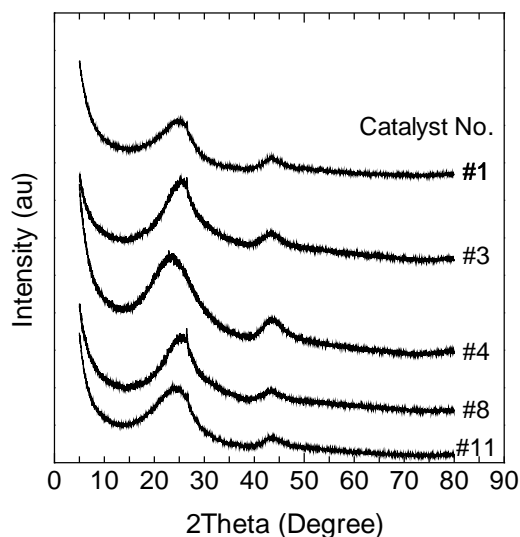


Figure S3. XRD patterns of selected nitrogen-doped and undoped AC materials of samples of 1, 3, 4, 8, and 11 of Table 1. XRD measurements were made using RIGAKU RINT2200 ULTRA IV with Ni-filtered $\text{CuK}\alpha$ radiation. Other conditions: scan speed, 20 $^\circ/\text{min}$, voltage 40 mV, current 20 mA.