

Supporting Information

Microstructural control of porous In₂O₃ powders prepared by ultrasonic-spray pyrolysis

employing self-synthesized polymethylmethacrylate microspheres as a template and their NO₂-sensing properties

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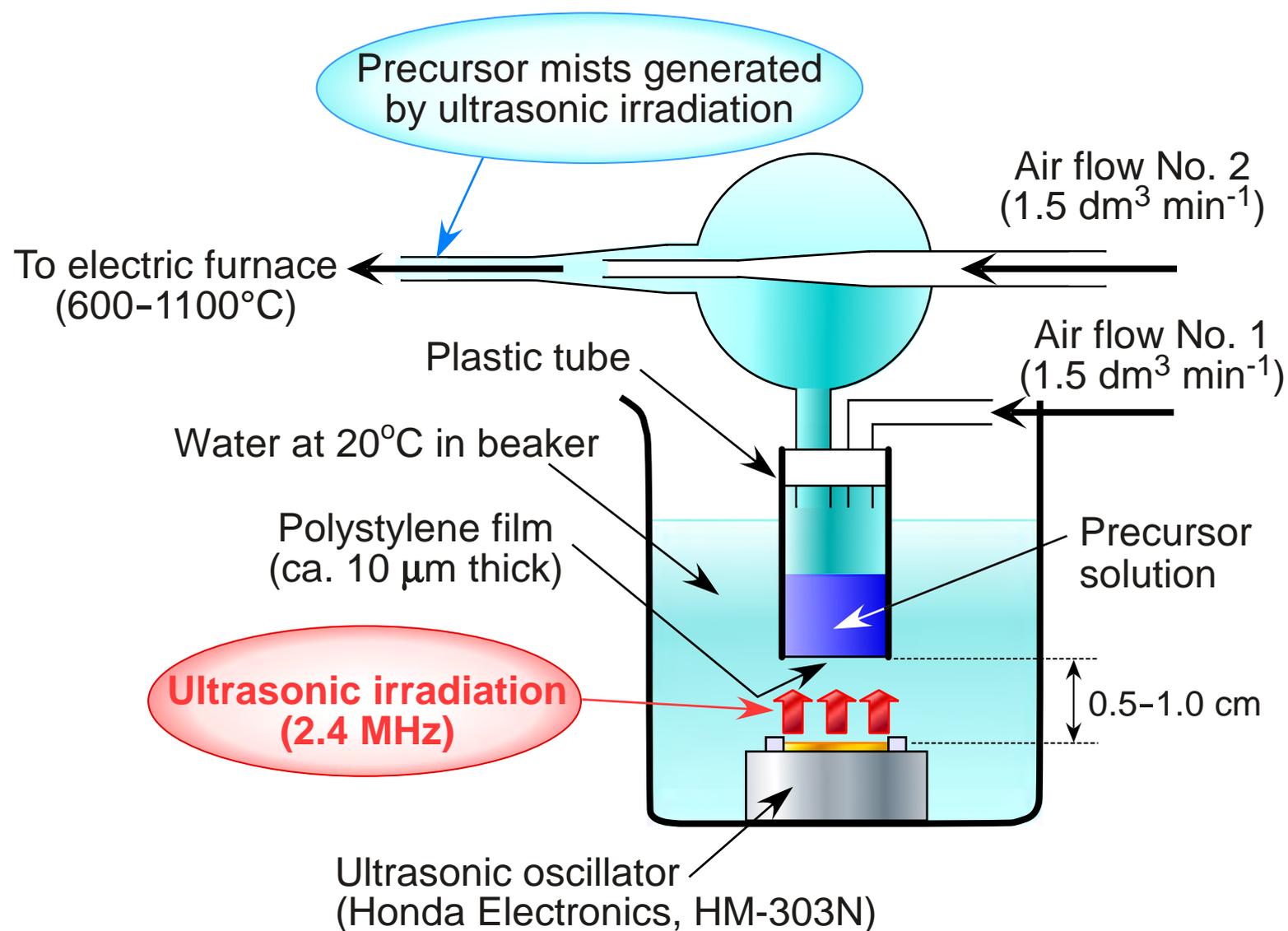


Fig. S1. Schematic drawing of feeding system of an aqueous precursor solution atomized by ultrasonication (2.4 MHz).

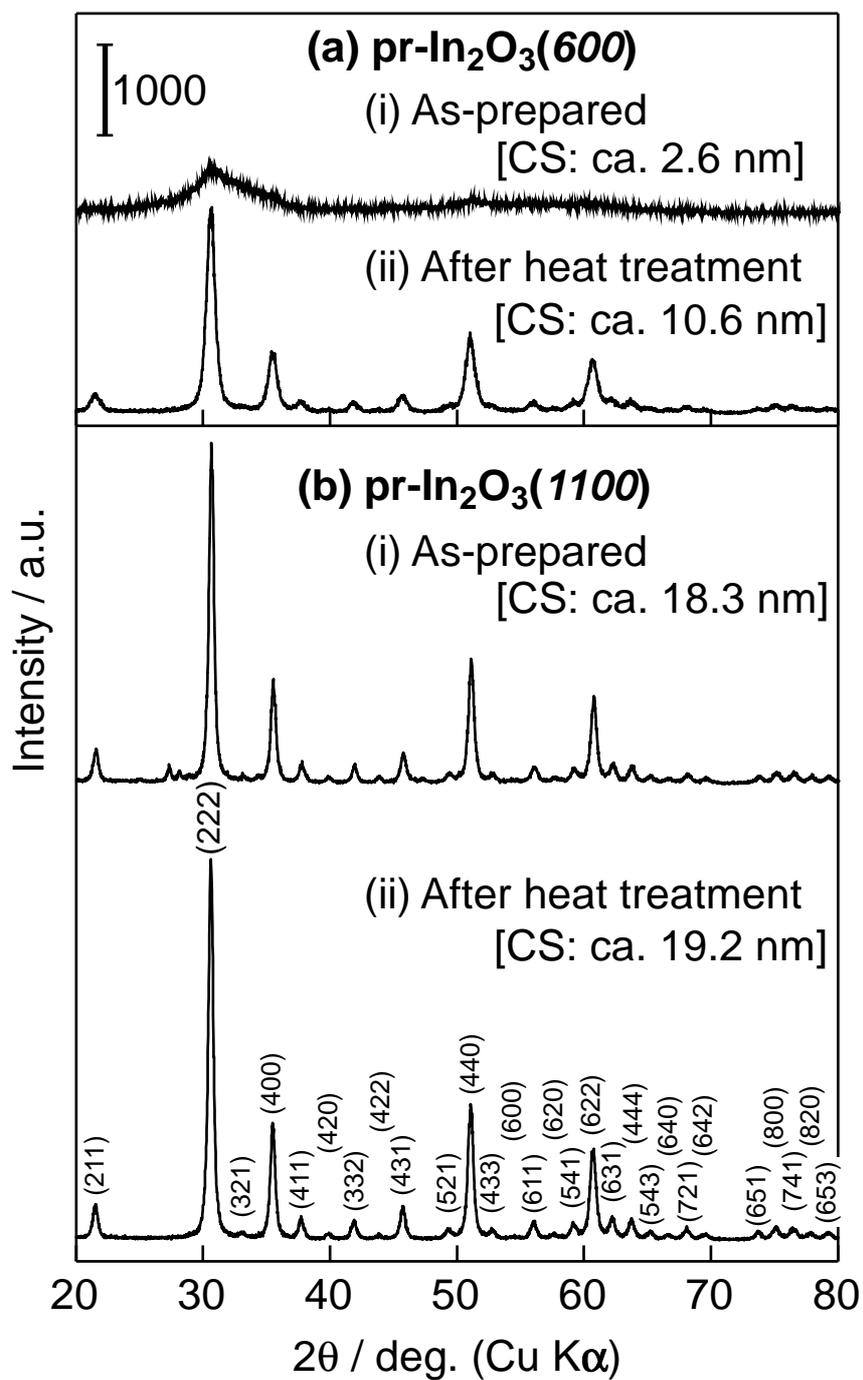


Fig. S2. XRD spectra of representative pr-In₂O₃(Tp) powders as-prepared and after heat treatments at 550°C for 5 h, together with their crystallite size (CS).

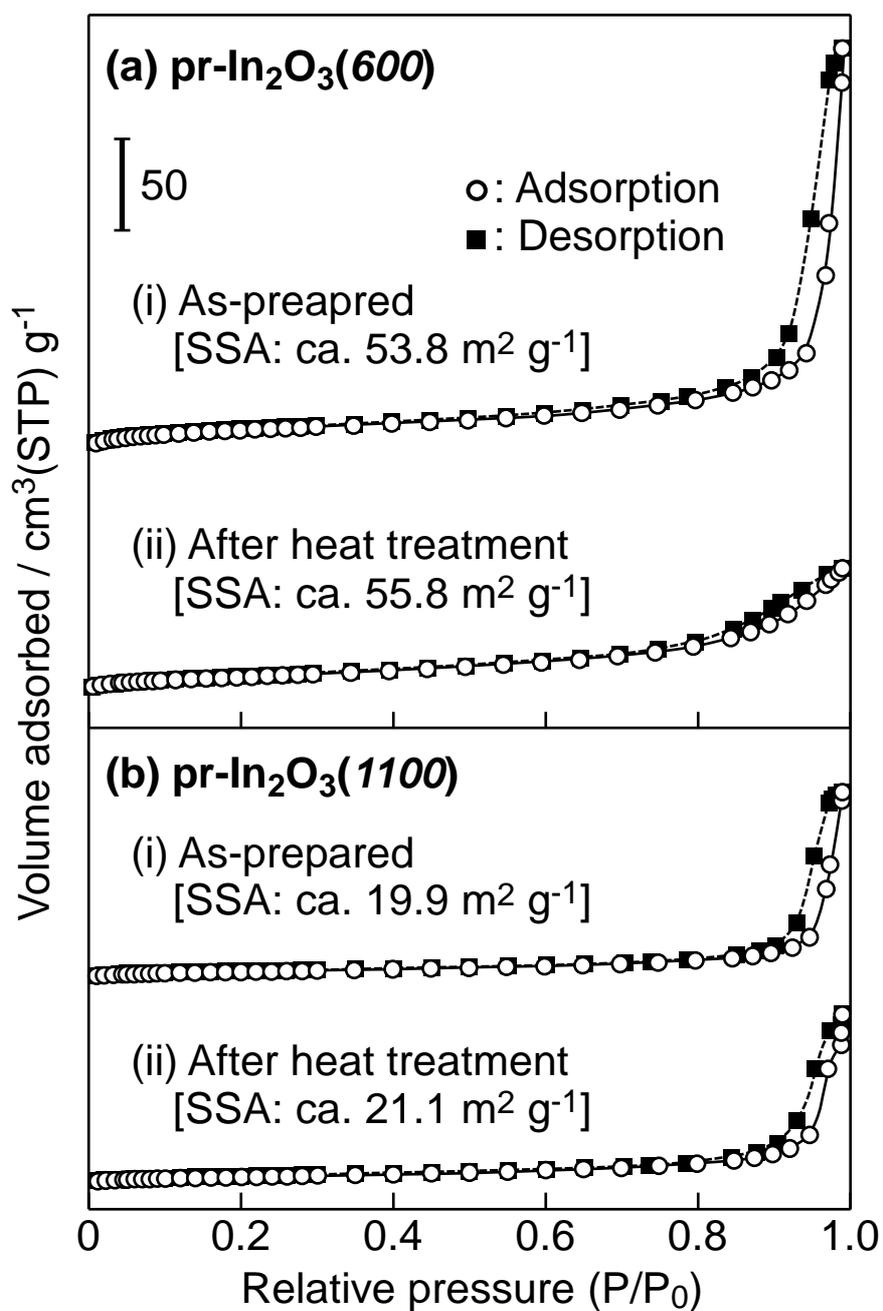
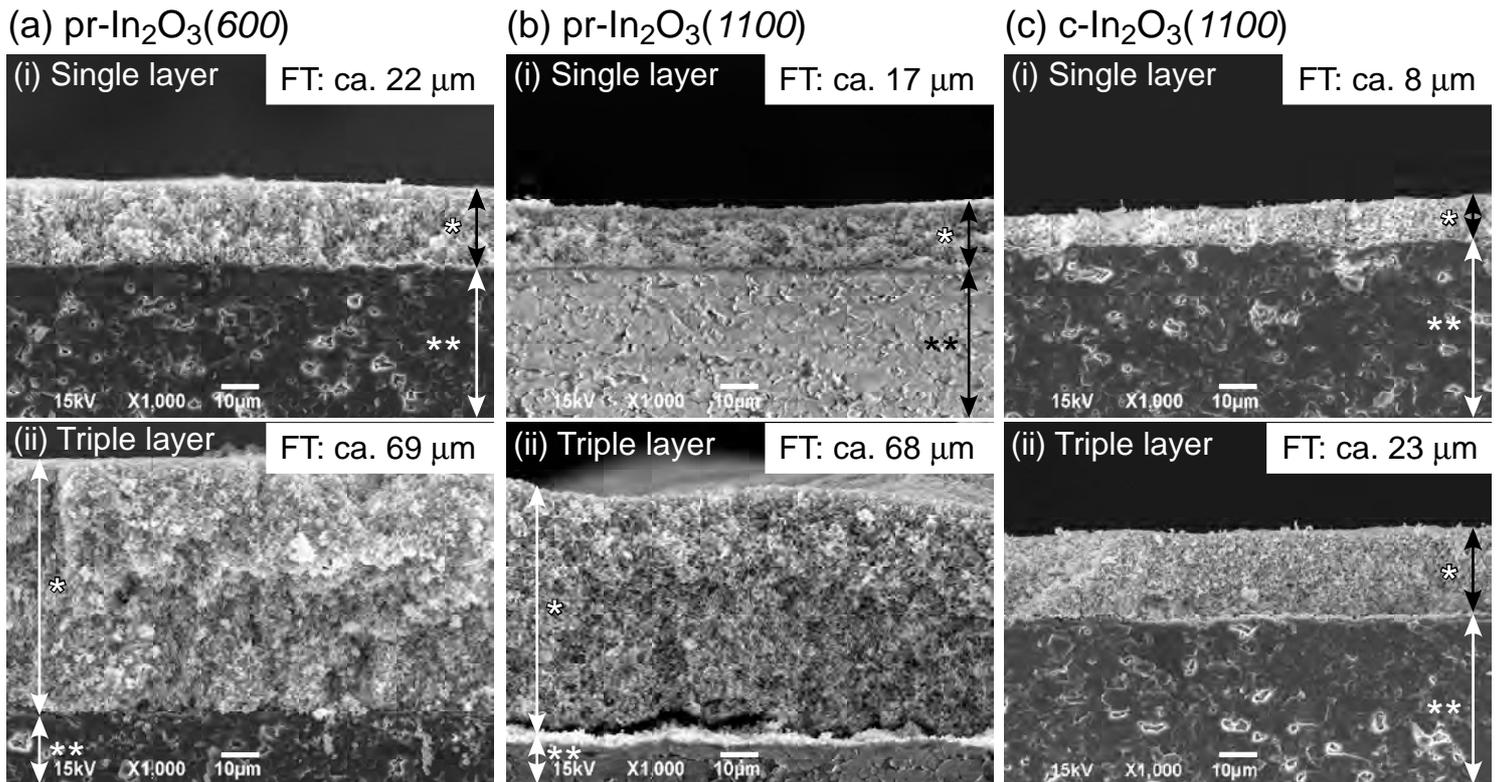


Fig. S3. Nitrogen adsorption-desorption isotherms of pr-In₂O₃(600) and pr-In₂O₃(1100) powders as-prepared and after heat treatment at 550°C for 5 h, together with SSA.



*In₂O₃ film, **Alumina substrate, the length of scale bar: 10 μm

Fig. S4. Cross-sectional SEM photographs of pr-In₂O₃(600), pr-In₂O₃(1100), and c-In₂O₃(1100) sensors, which were fabricated with single or triple stacking of the In₂O₃ film by screen printing. FT: thickness of the In₂O₃ films.