

Robustness of Ru/SiO₂ as a Hydrogen-Evolution Catalyst in a Photocatalytic System Using an Organic Photocatalyst

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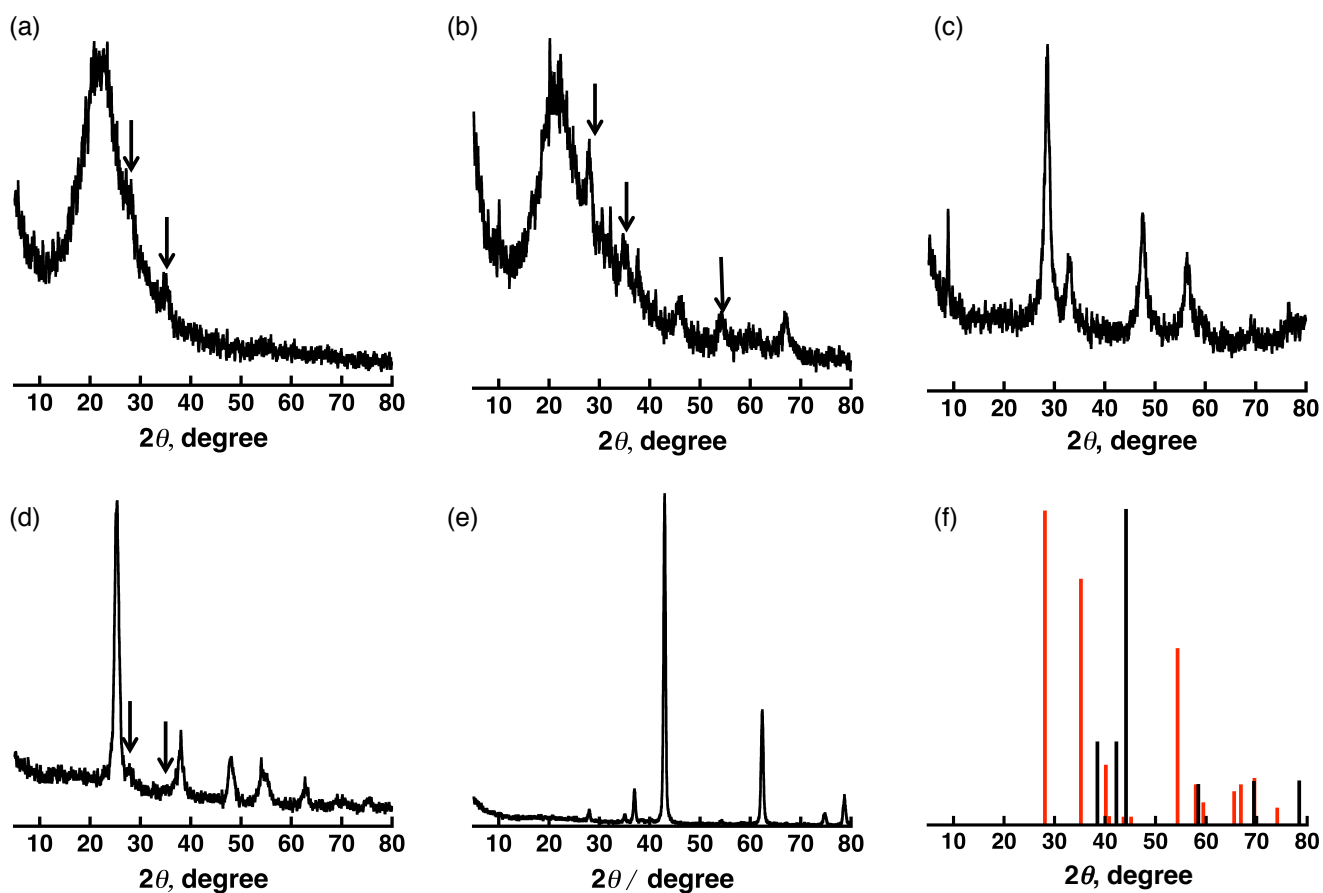


Figure S1. X-ray diffraction patterns of (a) Ru/SiO₂, (b) Ru/SiO₂-Al₂O₃, (c) Ru/CeO₂, (d) Ru/TiO₂, (e) Ru/MgO and (f) RuO₂ (red) and Ru metal (black) reported in literature. Arrows indicate the positions of diffraction peaks of RuO₂.

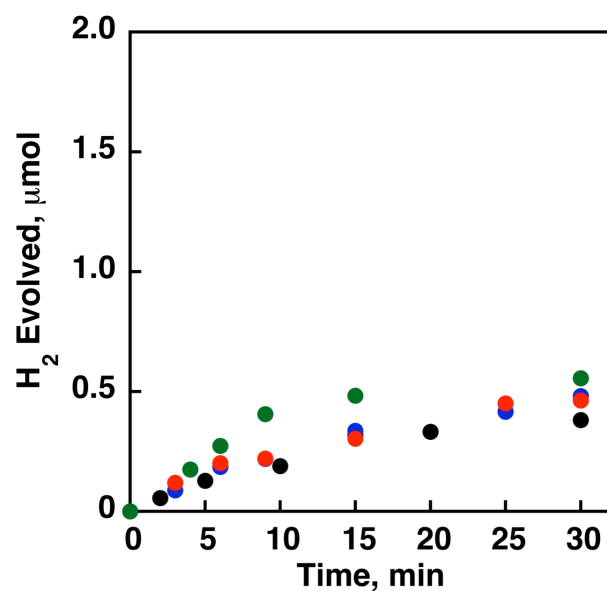


Figure S2. Comparison of time courses of the photocatalytic hydrogen evolution using Pt/SiO₂ with different Pt loading amounts (1 wt%, black; 2 wt%, blue; 3 wt%, red and 4 wt%, green).

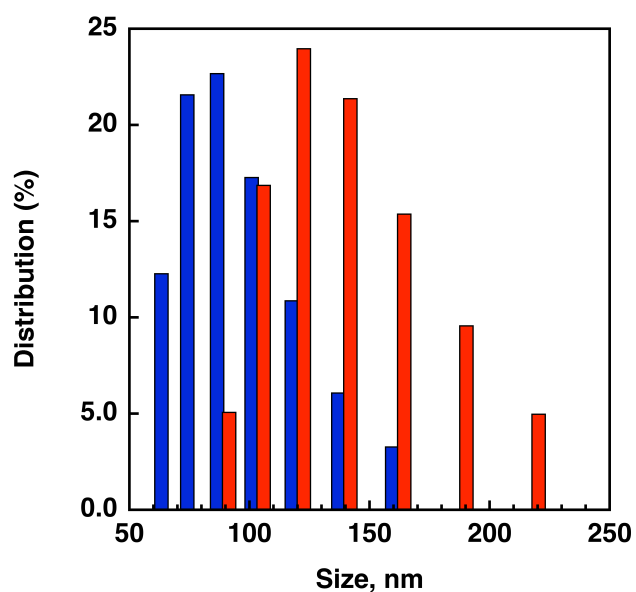


Figure S3. Size distribution of spherical SiO₂ (s-SiO₂) (blue) and 1.1 wt% Ru/s-SiO₂ (red) determined by dynamic laser scattering (DLS).

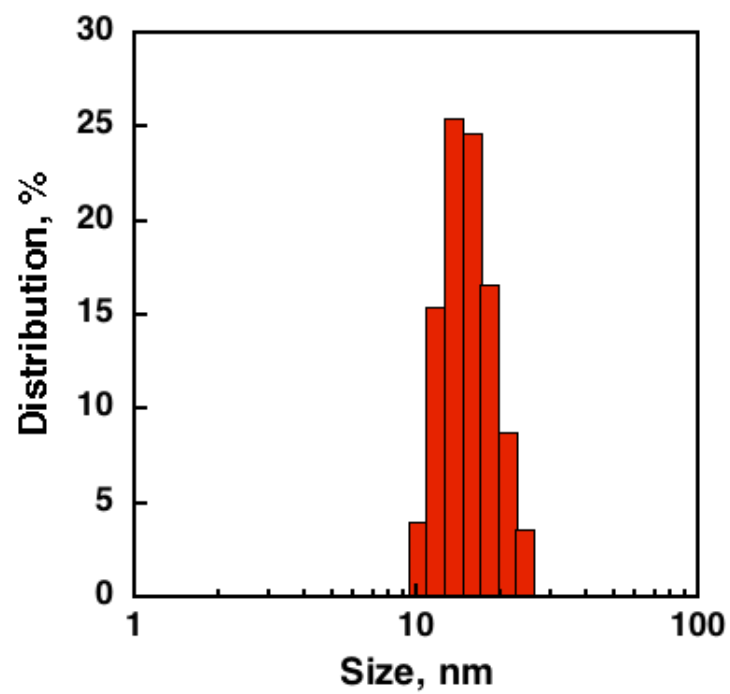


Figure S4. Size distribution of PtNPs after the photocatalytic reactions determined by dynamic laser scattering (DLS).