

## Photocatalytic hydrogenation of nitrobenzene to aniline over titanium(IV) oxide using various saccharides instead of hydrogen gas

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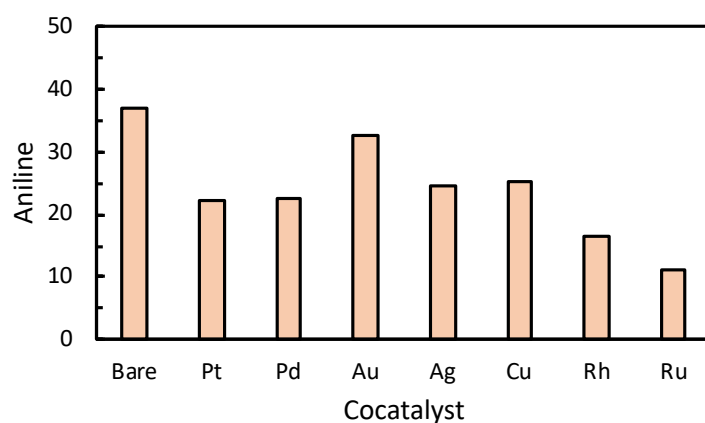


Fig. S1 Effects of different kinds of metal on yield of anilin after 60-min photoirradiation in photocatalytic hydrogenation of nitrobenzene (50 μmol) with glucose (1,000 ppm, 28 μmol) to aniline.

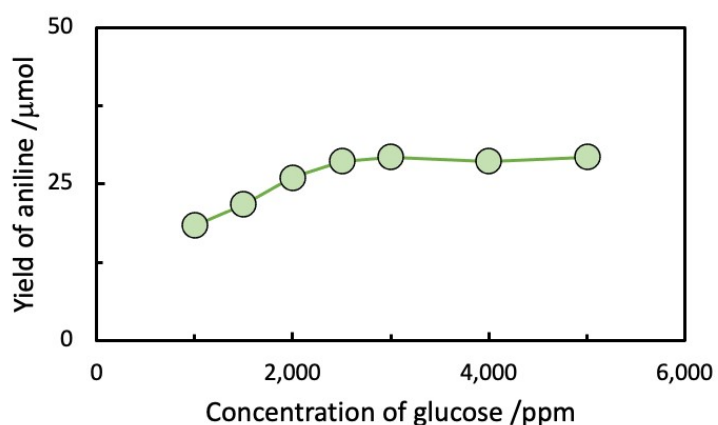


Fig. S2 Effects of different concentrations of glucose on yield of aniline in photocatalytic hydrogenation of nitrobenzene (50 μmol) after 90-min photoirradiation.

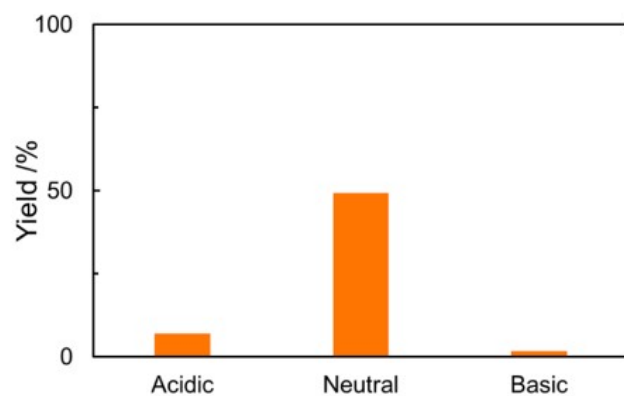


Fig. S3 Effects of different pH values of solution (0.1 mol dm<sup>-3</sup> HCl, 0.1 mol dm<sup>-3</sup> NaOH) containing glucose (2,000 ppm, 56 μmol) on yield of aniline in photocatalytic hydrogenation of nitrobenzene (50 μmol) after 60 min irradiation.

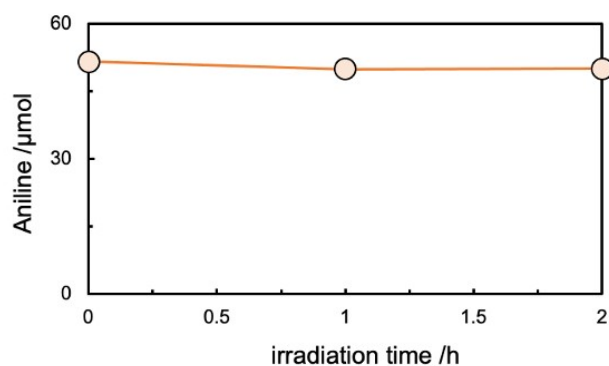


Fig. S4 Photocatalytic reaction of aniline over TiO<sub>2</sub> in the presence of glucose (2,000 ppm) under an Ar condition.

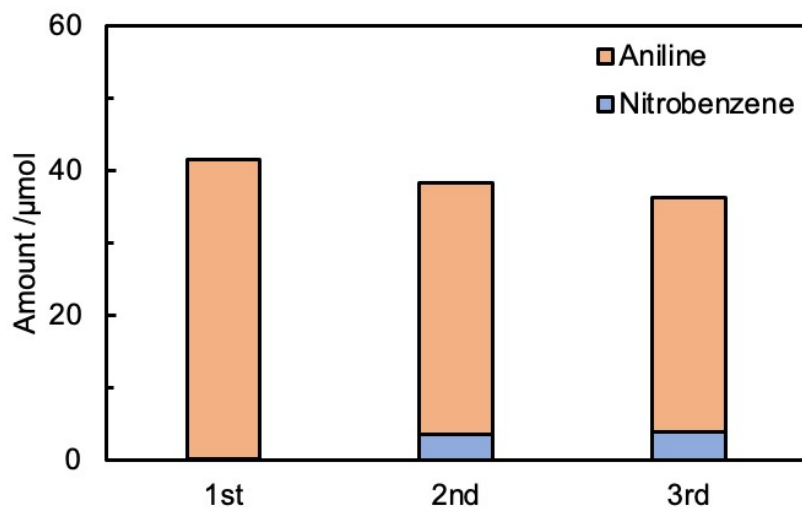


Fig. S5 Durability test of bare TiO<sub>2</sub> in photocatalytic hydrogenation of nitrobenzene to aniline in a aqueous suspension of bare TiO<sub>2</sub> for 2-h photoirradiation.

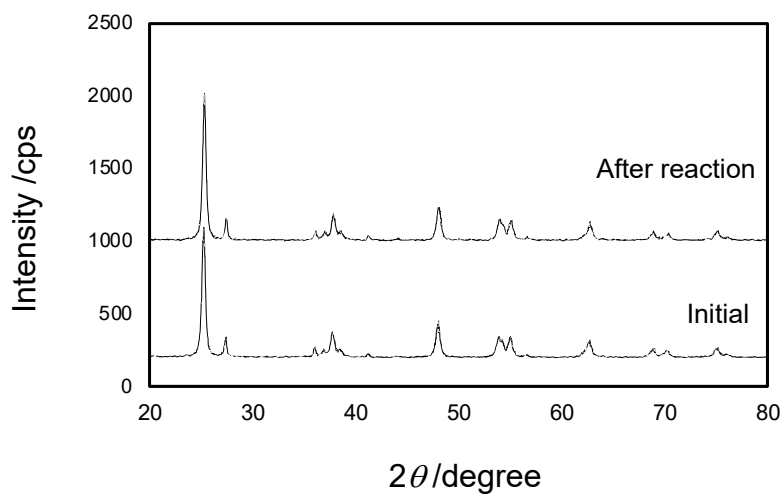


Fig. S6 X-ray diffraction patterns of bare TiO<sub>2</sub> (initial) and after the reaction.