

Visible-Light-Driven Selective Alcohol Dehydrogenation and Hydrogenolysis Via the Mott Schottky Effect

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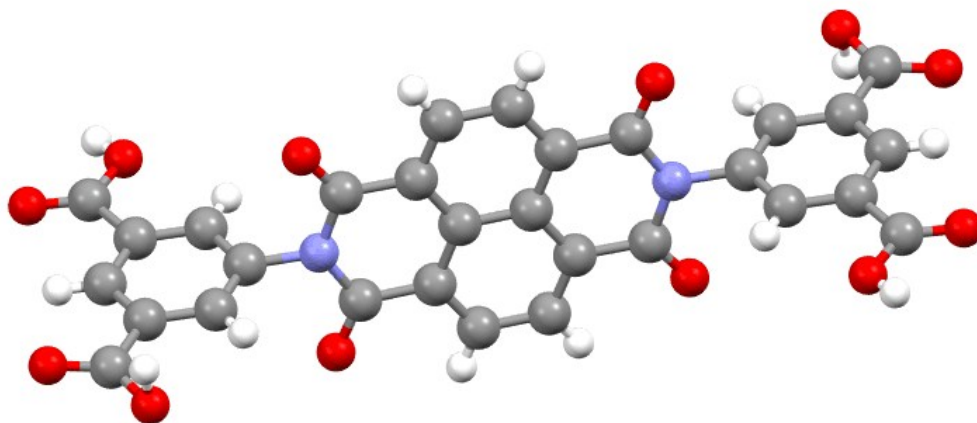


Fig. S1. The conformation of H₄BINDI ligand.

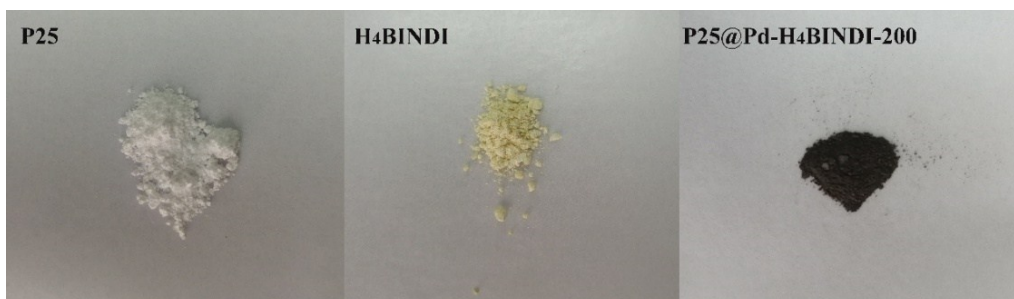


Fig. S2. Digital photographs of P25, H₄BINDI, and P25@Pd-H₄BINDI-200.

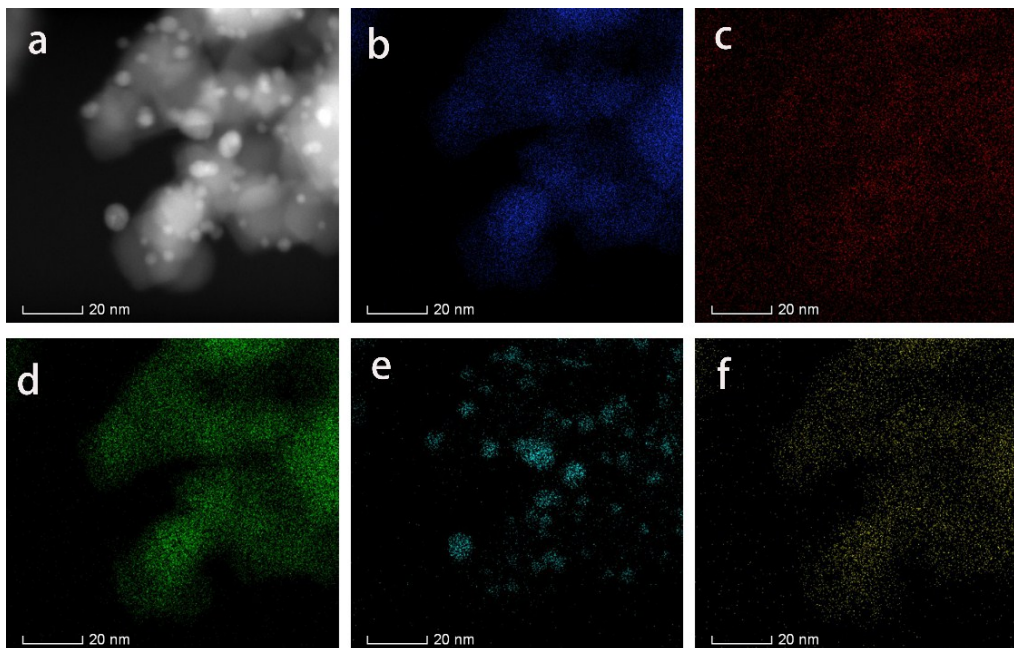


Fig. S3. TEM image (a) and elemental-mapping images of (b-f) Ti, C, O, Pd, and N in P25@Pd-H₄BINDI-200.

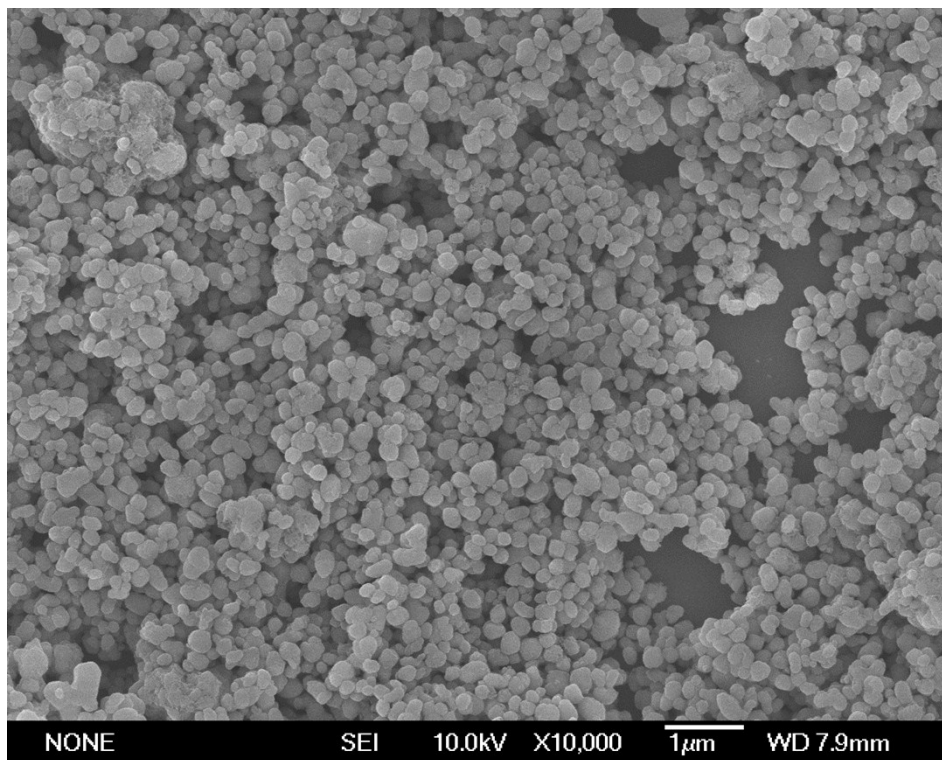


Fig. S4. SEM image of P25.

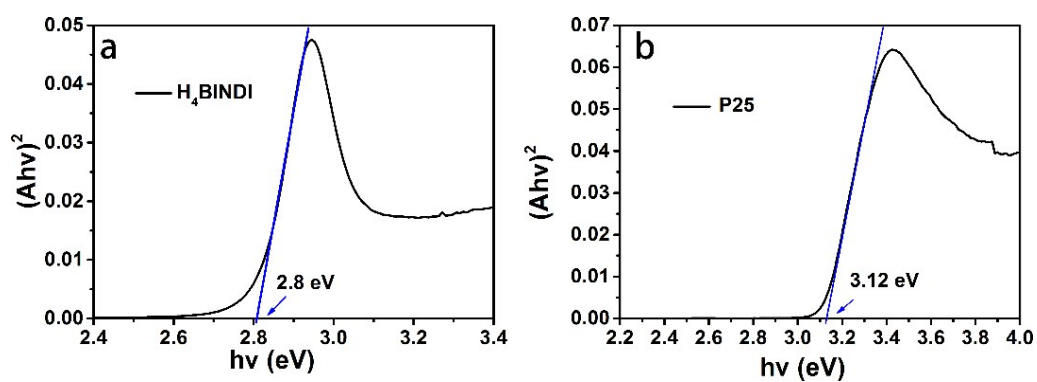


Fig. S5. Tauc plot of (a) H_4BINDI and (b) P25.

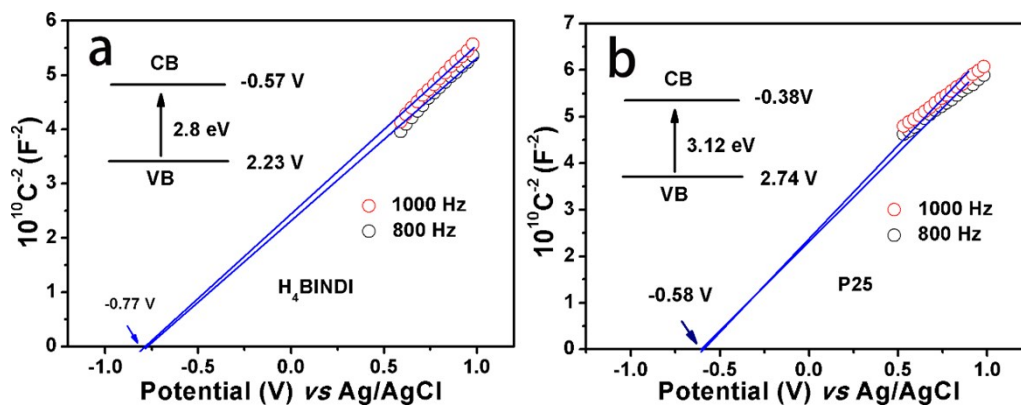


Fig.S6. Mott-Schottky plot of (a) H_4BINDI and (b) P25.

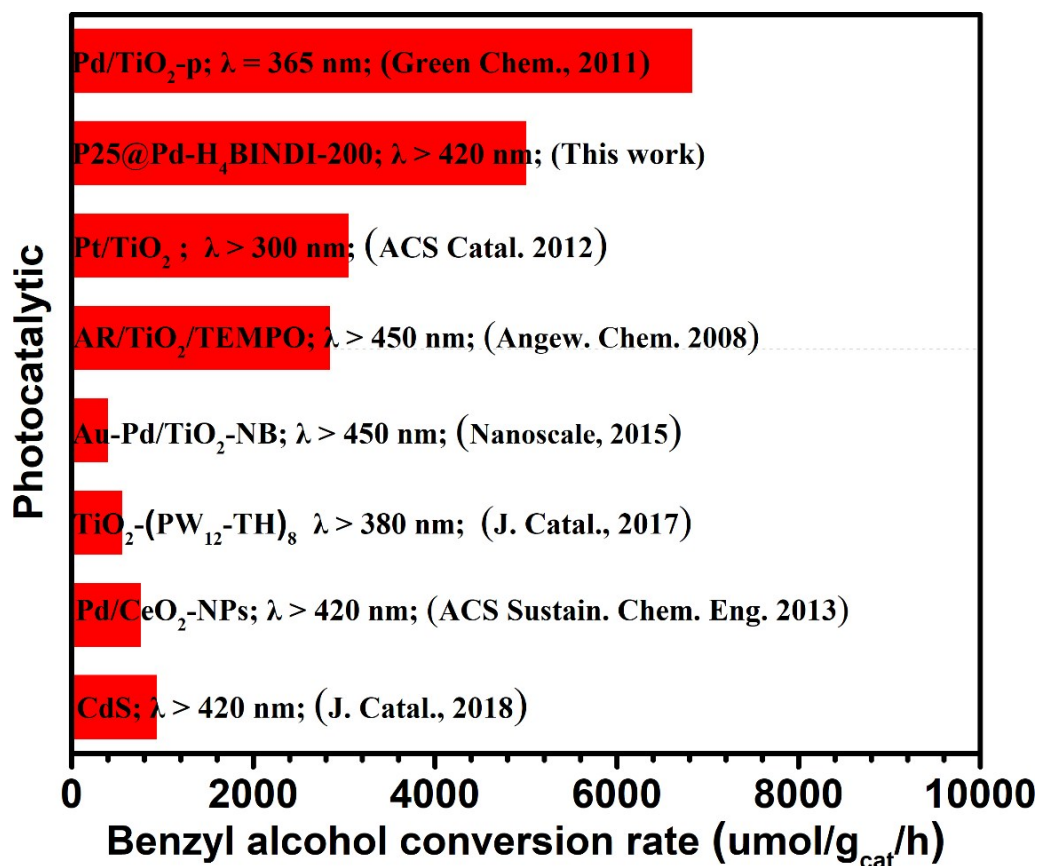


Fig. S7. Benzyl alcohol conversion rate of P25@Pd-H₄BINDI-200 compare to different reported catalyst.¹⁻⁵

Supplementary References

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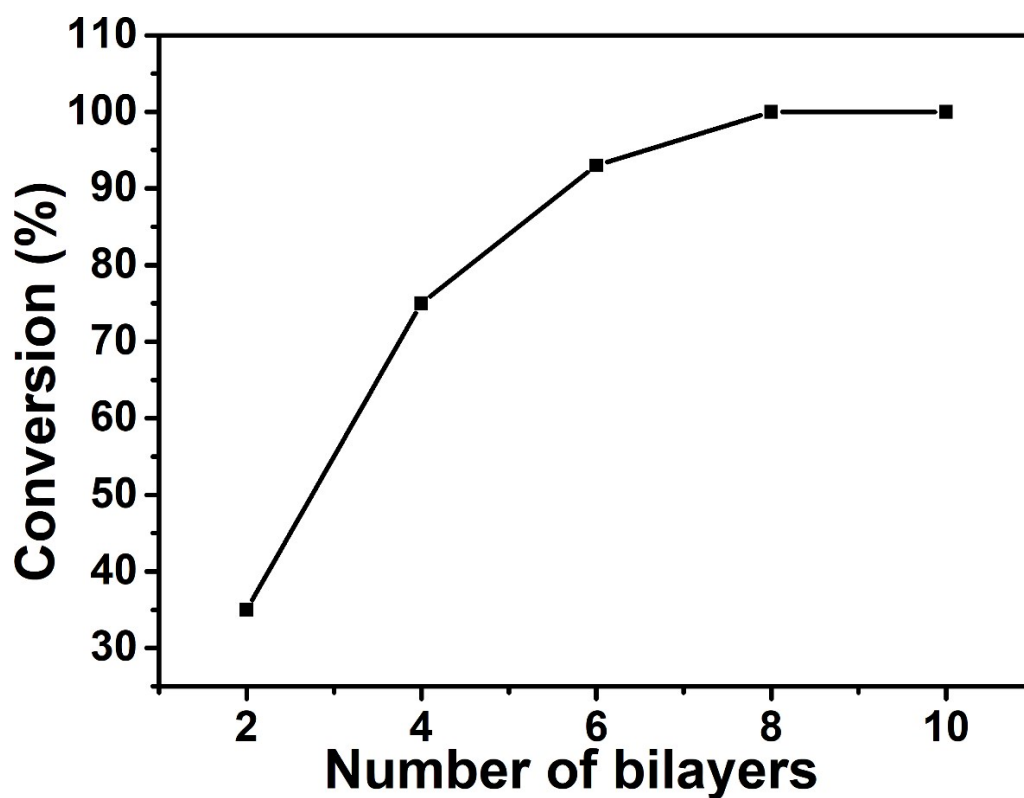


Fig. S8. Catalytic activities relate to the number of films upon direct visible light exposure for 2 h.

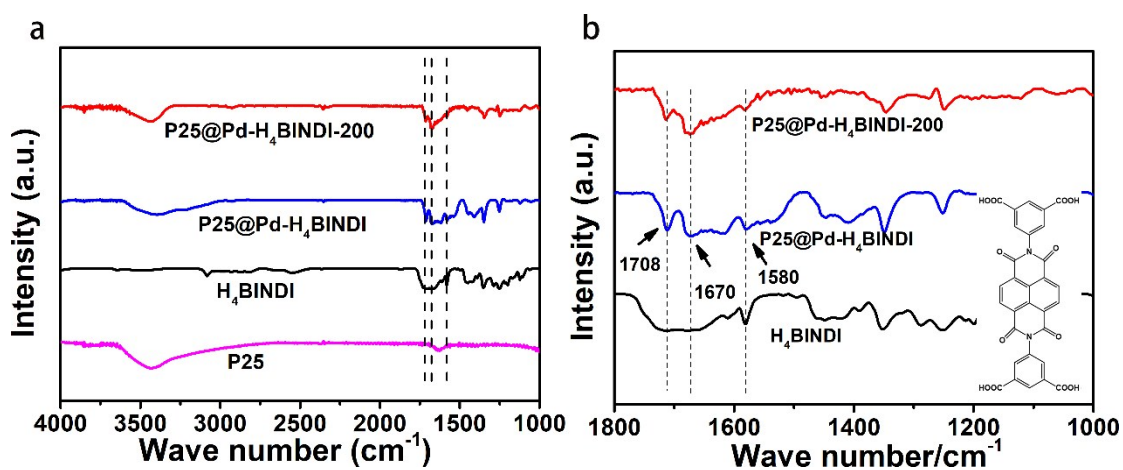


Fig. S9. (a) FT-IR spectra and the amplified FT-IR spectra (b) of P25, H₄BINDI, P25@Pd-H₄BINDI and P25@Pd-H₄BINDI-200 (The insert is the structure of H₄BINDI).