

Sub-nanometer Co_3O_4 Clusters Anchored on $\text{TiO}_2(\text{B})$ Nano-sheets: Pt Replaceable Co-catalysts for H_2 Evolution

Received 00th January 20xx,
Accepted 00th January 20xx

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DOI: 10.1039/x0xx00000x

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Supporting Information

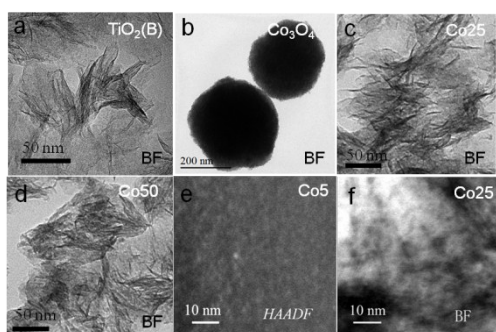


Figure S1. TEM Bright field (BF) image of samples, (a) pure $\text{TiO}_2(\text{B})$ before Co loading, (b) a control experiment performed under identical synthesis conditions of Co10, without $\text{TiO}_2(\text{B})$ nanosheets, produced big aggregates of Co_3O_4 nanoparticles, (c) Co25, (d) Co50, (e) HAADF image of Co5, (f) BF image of Co25 with a larger magnification.

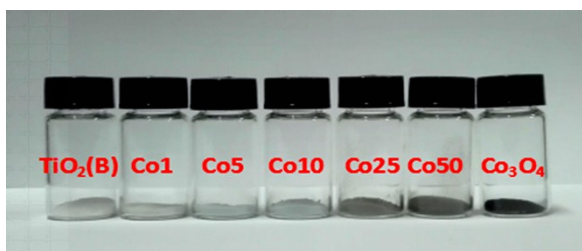


Figure S2. The $\text{TiO}_2(\text{B})$ samples with various Co loading dosages.

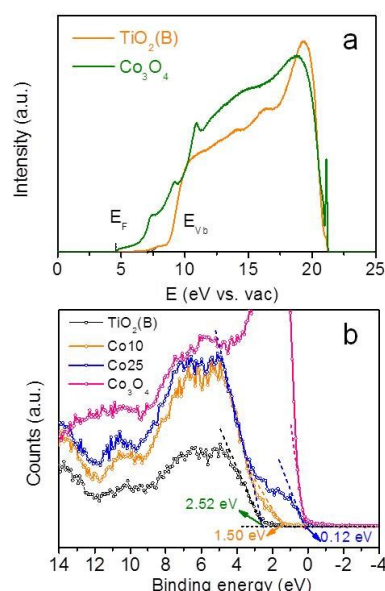


Figure S3. (a) UPS spectra of $\text{TiO}_2(\text{B})$ nanosheets, and pure Co_3O_4 aggregates. (b) XPS valence edges of samples $\text{TiO}_2(\text{B})$, Co10, Co25 and pure Co_3O_4 .

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†Electronic Supplementary Information (ESI) available: The experimental details, the additional characterization of the used catalysts including TEM, XPS and UPS. See DOI: 10.1039/x0xx00000x