Supporting Information

Efficient Electrocatalytic Hydrogen Gas Evolution by a Cobalt-Porphyrin-based Crystalline Polymer

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Figure S1. UV-vis spectrum of H₂TcPP in EtOH.



Figure S2. UV-vis spectrum of 2 in EtOH.



Figure S3. UV-vis spectrum of 1 dissolved in pH=8 phosphate buffer solution.



Figure S4. UV-vis spectrum of **1** dissolved in pH=14 KOH aqueous solution. Precipitation of Co(OH)₂ was observed.



Figure S4. ¹HNMR spectrum of **1** dissolved in pH=8 phosphate buffer deuterium oxide solution. The spectrum shows broad signals besides the solvent peak, resulting from the d⁷ Co²⁺ center.



Figure S4. Infrared spectra of 1 and 2



Figure S5. EDX spectrum of 1.



Figure S6. Cyclic voltammograms of **1** and **2** modified silver/FTO working electrodes in the presence of pH=4.56 buffer solution. Scan rate: 50 mV/s.



Figure S7. Tafel plots of 1 and 2.



Figure S8. Polarization curves of **1** before (solid line) and after (dotted line) 10 hours' constant chronoamperometry analysis at -0.4 V vs. RHE.