Supporting Information

Establishing redox flow batteries with polyoxometalates-based redox couples for enhanced hydrogen sulfide splitting

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Supplementary Results

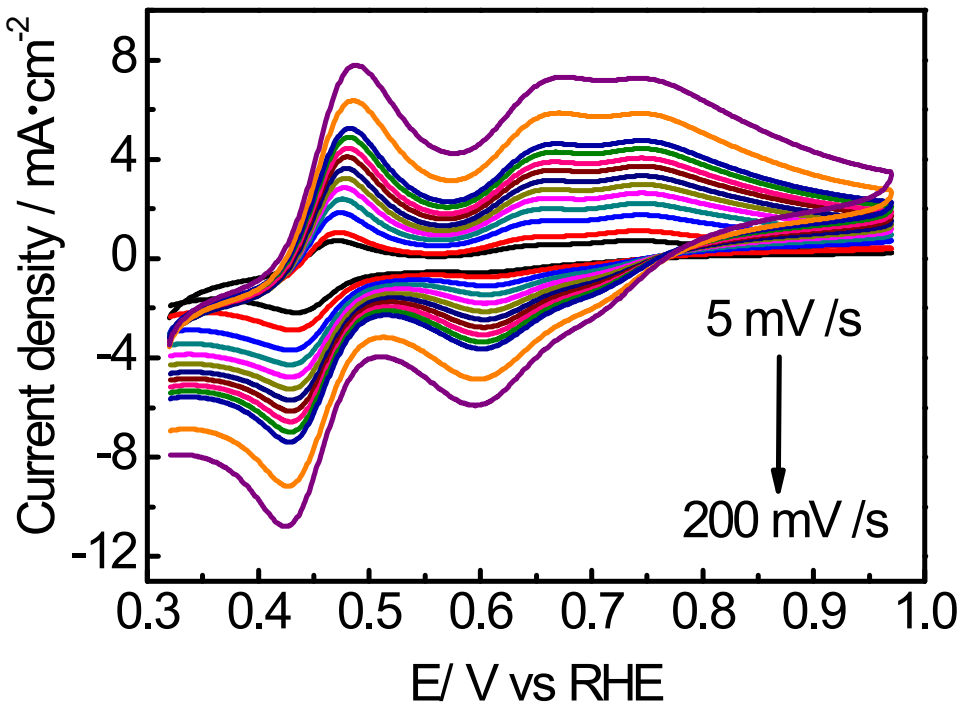

Fig. S1. CV plots of commercial glassy carbon electrode in 0.5 M H_2SO_4 containing 0.05 M $H_3(PMo_{12}{}^{VI}O_{40})$ at different scanning rates.

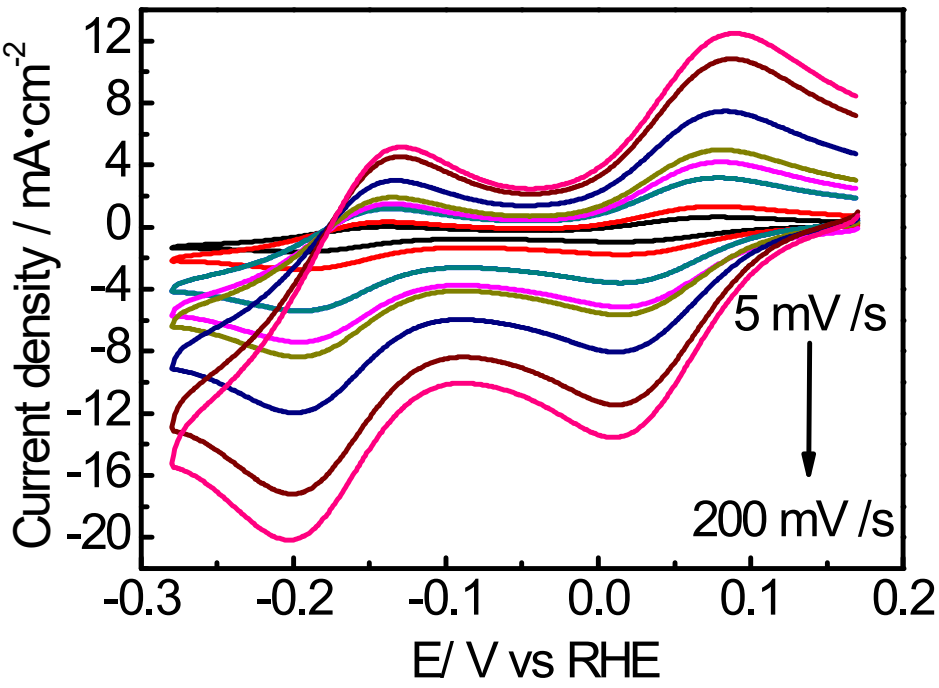

Fig. S2. CV plots of commercial glassy carbon electrode in 0.5 M H_2SO_4 containing 0.05 M $H_4[SiW_{12}{}^{VI}O_{40}]$ at different scanning rates.

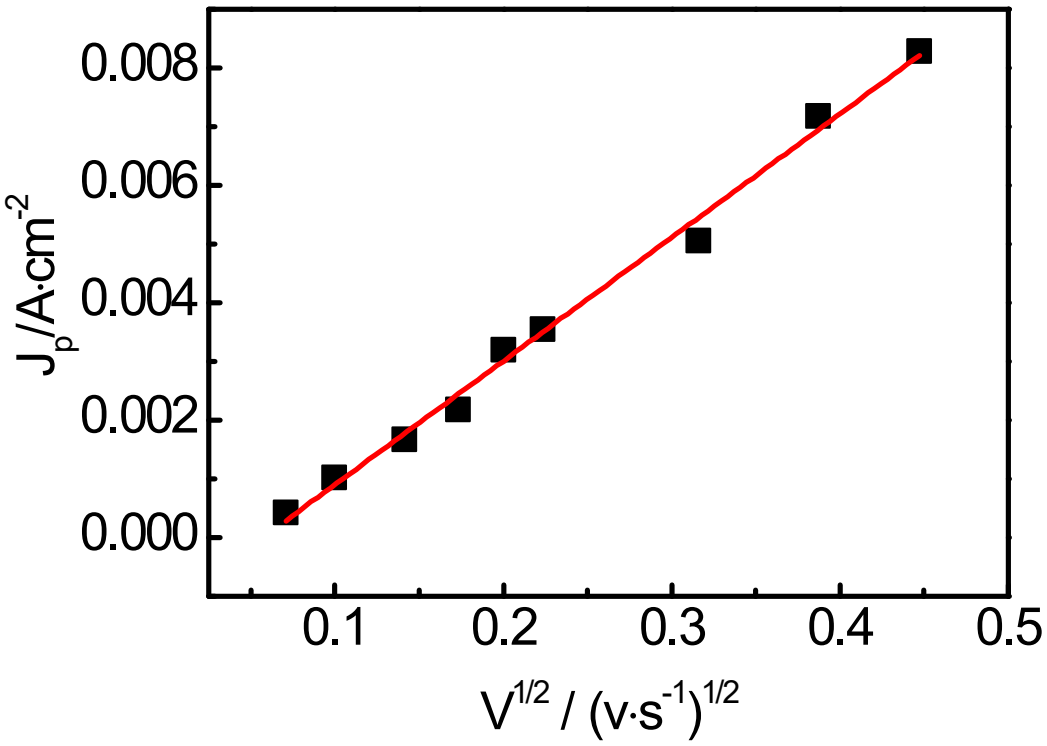

Fig. S3 (a) The anodic peak current density (j_p) of process II versus square root of scan rate ($V^{1/2}$) plot obtained on a commerical carbon glassy electrode for $H_4[SiW_{12}{}^{VI}O_{40}]/H_5[SiW_{11}{}^{VI}W^{V}O_{40}]$ redox couples in electrolytes of 0.5 M H_2SO_4.

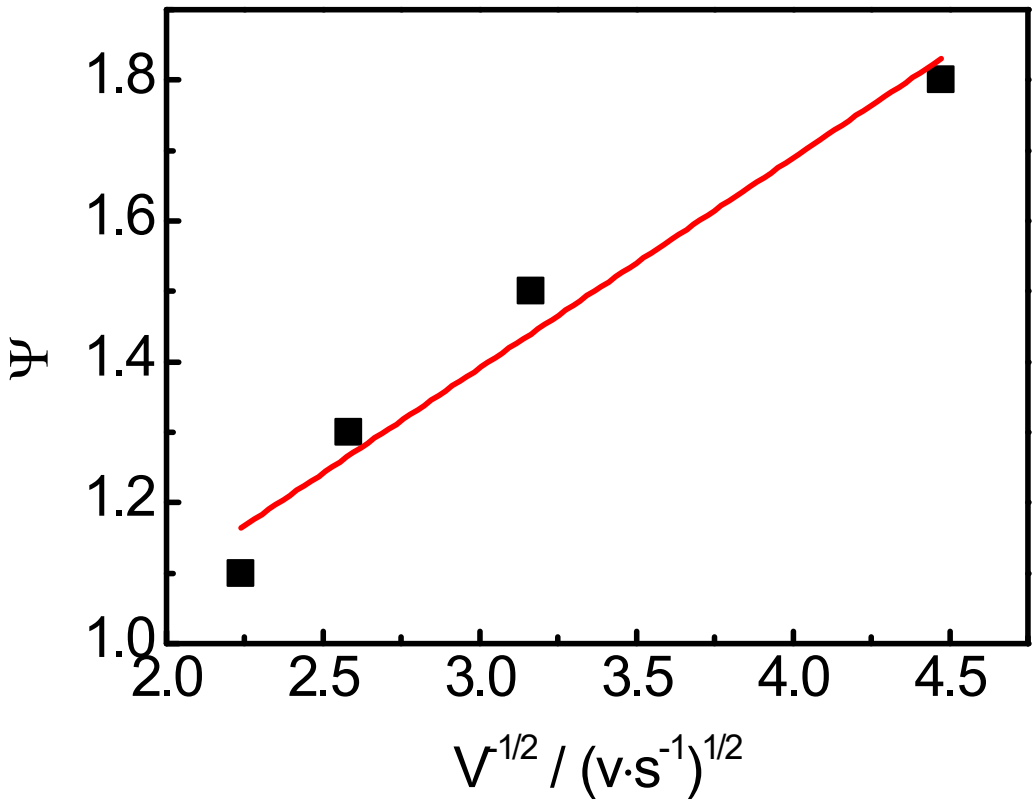

Fig. S4 The corresponding plot of Ψ versus $V^{-1/2}$ for $H_4[SiW_{12}{}^{VI}O_{40}]/H_5[SiW_{11}{}^{VI}W^{V}O_{40}]$ redox couples.

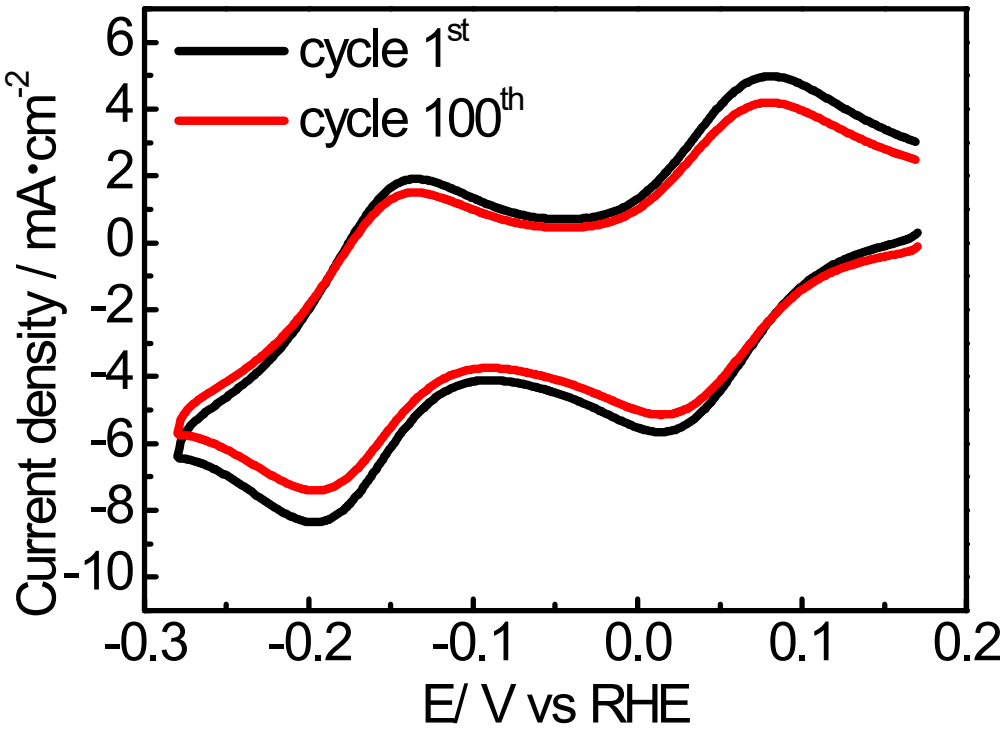

Fig. S5 d) CV plots of a commerical carbon glassy electrode in 0.5 M H_2SO_4 containing 0.05 M $H_4[SiW_{12}{}^{VI}O_{40}]$ before and after 100 CV tests.