**Supporting Information**

# Direct Self-assembly of Hierarchically Grown Rhodium Thin Films for Electrocatalytic Hydrogen Evolution Reaction

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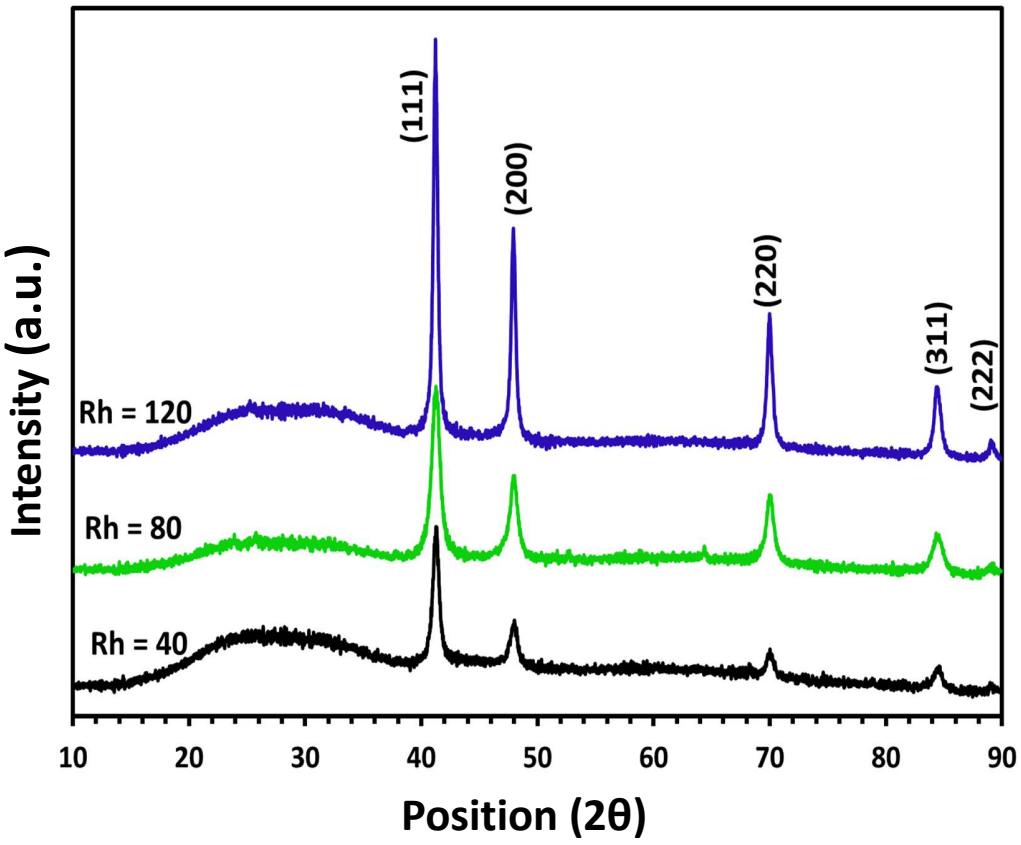


Figure S1. XRD patterns of the rhodium (Rh) thin films, Rh-40, Rh-80 and Rh-120, prepared on plain glass substrates for 40, 80 and 120 min of deposition time at 500 ˚C via AACVD.

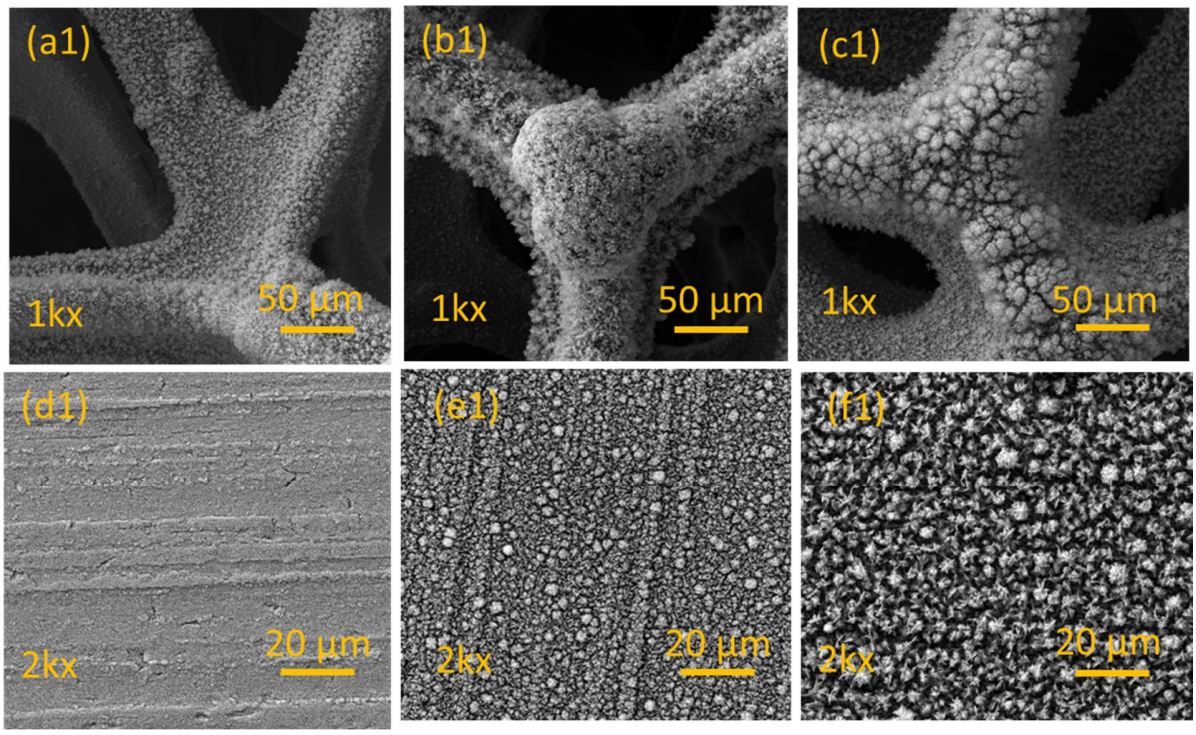


Figure S2. Low-magnification FESEM images of metallic Rh films, acquired from two different substrates (**a1**)-(**c1**) Ni foam and (**d1**)-(**f1**) Ti foil for deposition times of 40 min (**a1)** & (**d1**), 80 min (**b1)** & (**e1**) and 120 min (**c1)** & (**f1**).

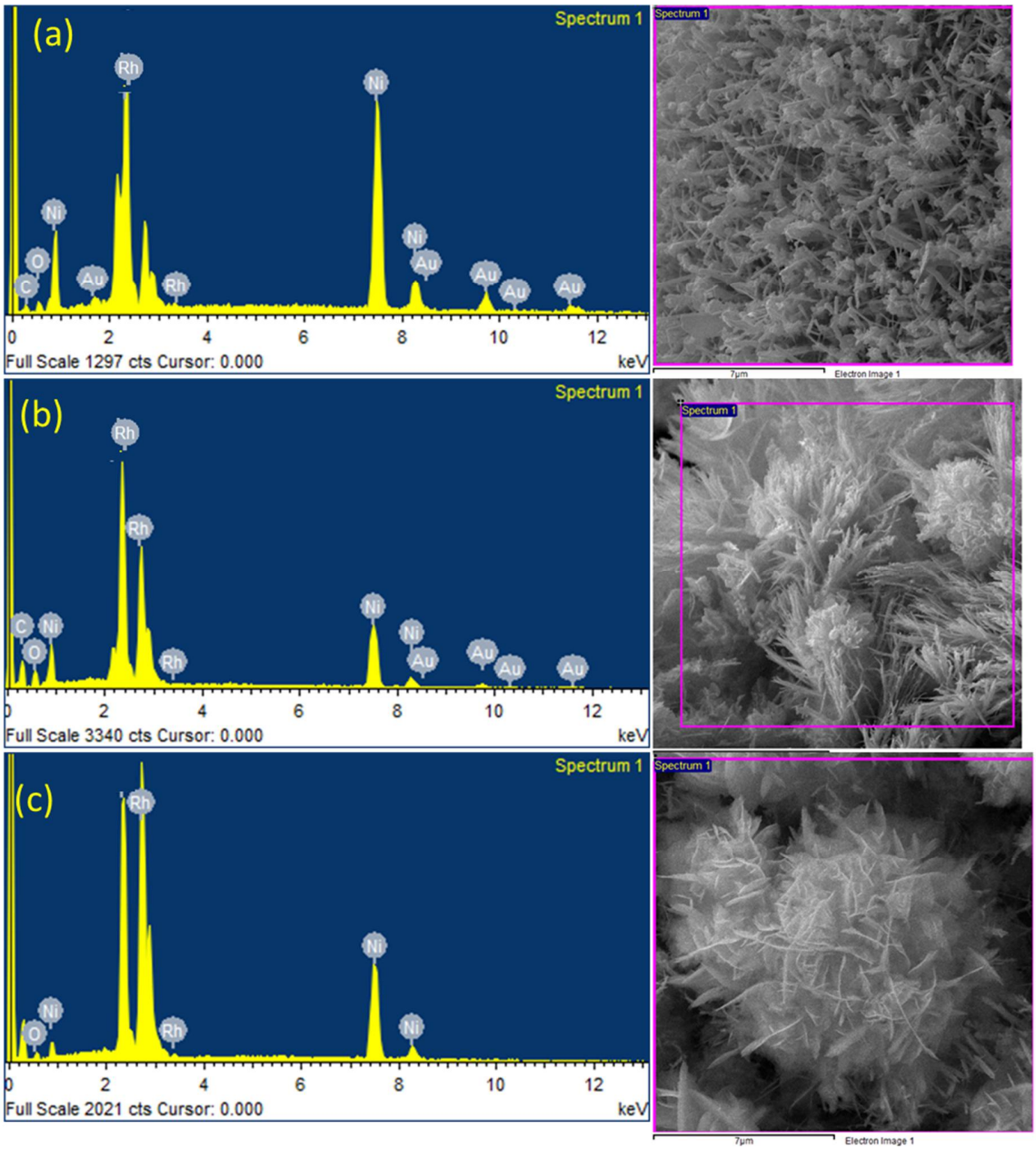


Figure S3. EDX spectra of Rh thin films deposition on Ni foam substrate for different deposition time of (a) 40 min (b) 80 min (c) 120 min.

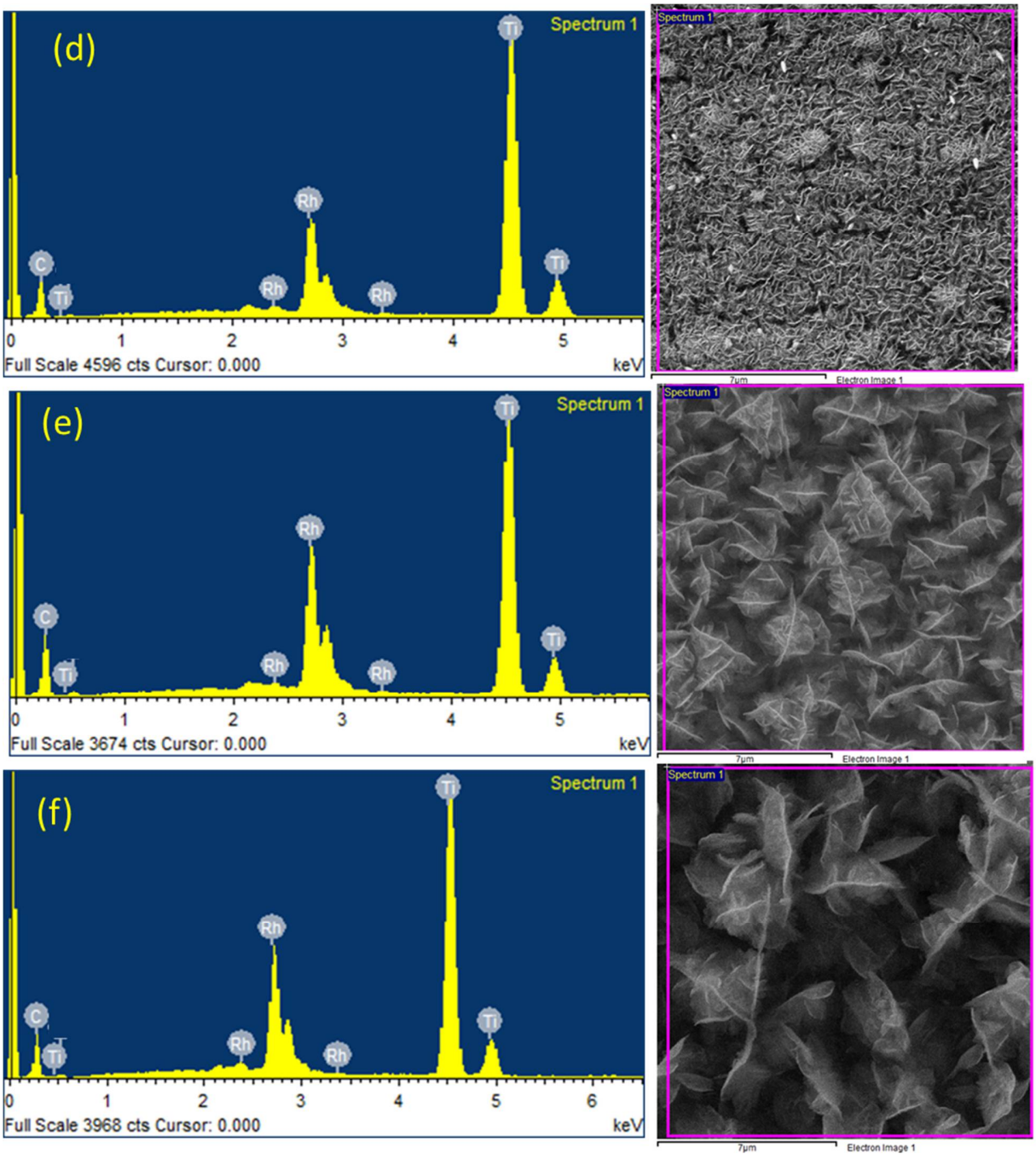


Figure S4. EDX spectra of Rh thin films deposition on Ti foil substrate for different deposition time of (a) 40 min (b) 80 min (c) 120 min.