Template conversion of MoO$_3$ to MoS$_2$ nanoribbons: synthesis and electrochemical properties

L. Vieira$^a$, J. R. Martins Neto$^b$, O. P. Ferreira$^c$, R. M. Torresi$^b$, S. I. Cordoba de Torresi$^b$ and O. L. Alves$^a$

Support Information

SI 1: Characterization of the precursor MoO$_3$•2 H$_2$O: a) SEM image, b) TG-DTA curves, c) Raman spectrum and d) XRD pattern.

SI 2: Diameter measurement of SEM images of as-prepared MoO$_3$ nanoribbons.
SI 3: a) Cyclic voltammogram at 10 mV s\(^{-1}\) of a MoO\(_3\) film on ITO in 1 mol L\(^{-1}\) Mg(ClO\(_4\))\(_2\) in PC. The cathodic peak shows the irreversible intercalation of Mg\(^{2+}\) in MoO\(_3\).

SI 4: TEM images of MoS\(_2\) obtained through heating from room temperature to 800 °C at 30°C/min under 5 %/95 % H\(_2\)/N\(_2\) (96 mL min\(^{-1}\)). H\(_2\)S was streamed after the temperature reached 400 °C. The sample was treated at 800 °C for 30 min.