

# **Proton Conducting Films of Nanoscale Ribbons Formed by Exfoliation of the Layer Perovskite $\text{H}_2\text{SrTa}_2\text{O}_7$**

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## **Supporting Information (4 pp.)**

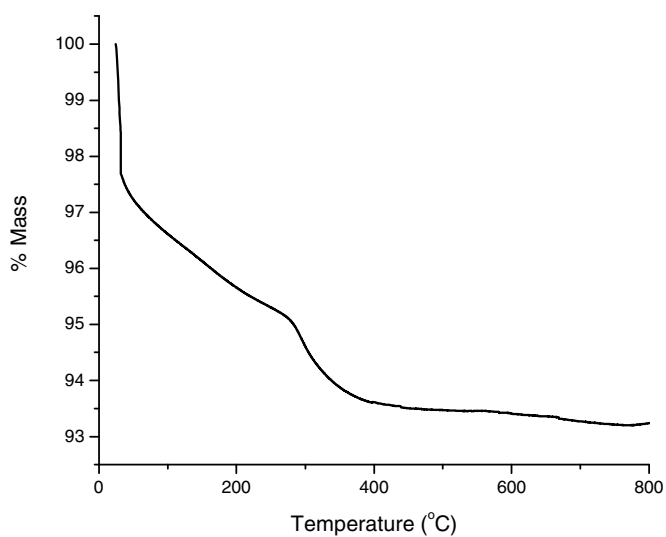
Fig. S-1. TGA of hydrated  $\text{H}_2\text{SrTa}_2\text{O}_7$ .

Fig. S-2. AFM image of ribbons deposited by layer-by-layer adsorption.

Fig. S-3. TGA-MS of flocculated ribbons and PDDA.

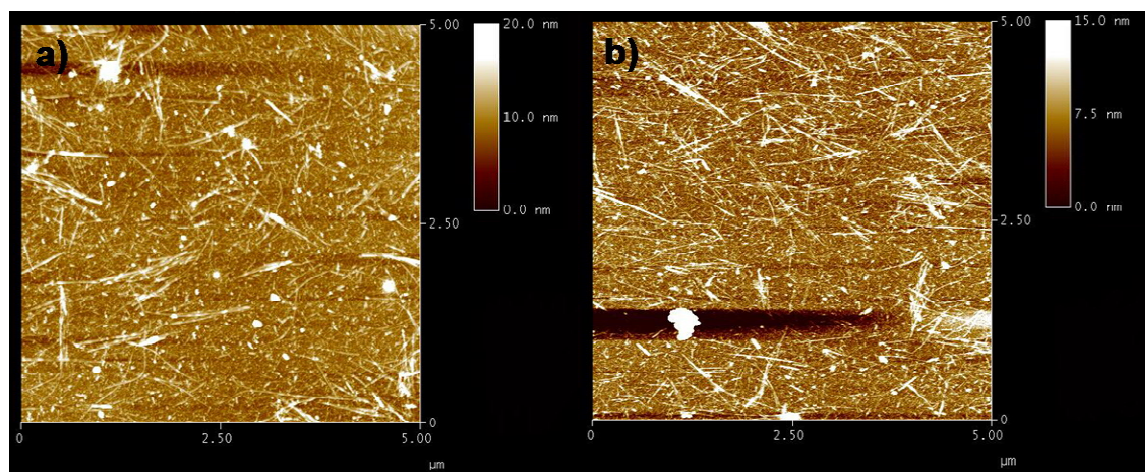
Fig. S-4. Schematic drawing of electrode geometry used for thin film EIS measurements.

Fig. S-5. AFM image of ribbons in the gap between platinum electrodes, in a ribbon/PDDA film grown layer-by-layer.



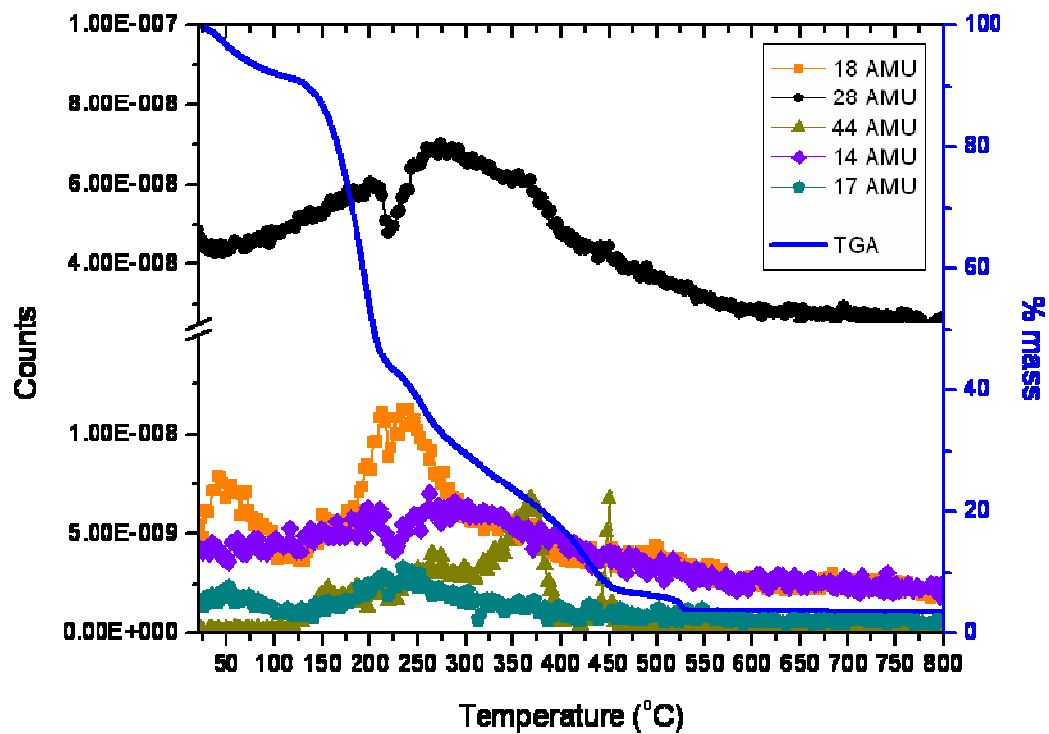
**Figure S-1.** TGA of hydrated  $\text{H}_2\text{SrTa}_2\text{O}_7$

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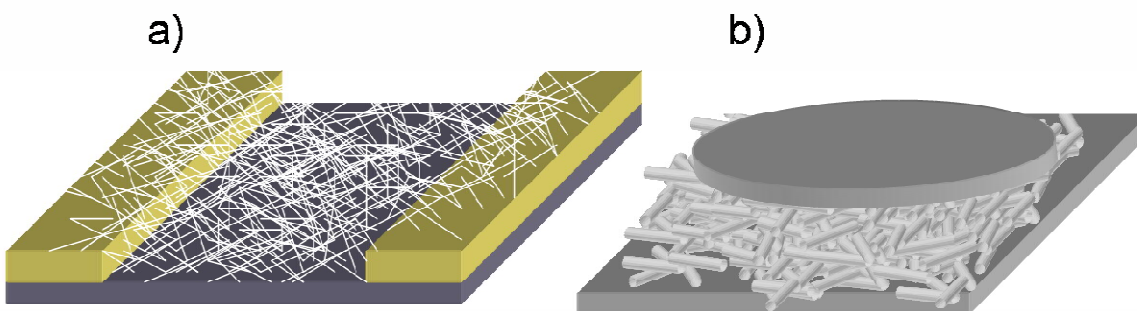
**Figure S-2.** AFM image of ribbons deposited by layer-by-layer adsorption after a) one and b) two cycles of film growth.

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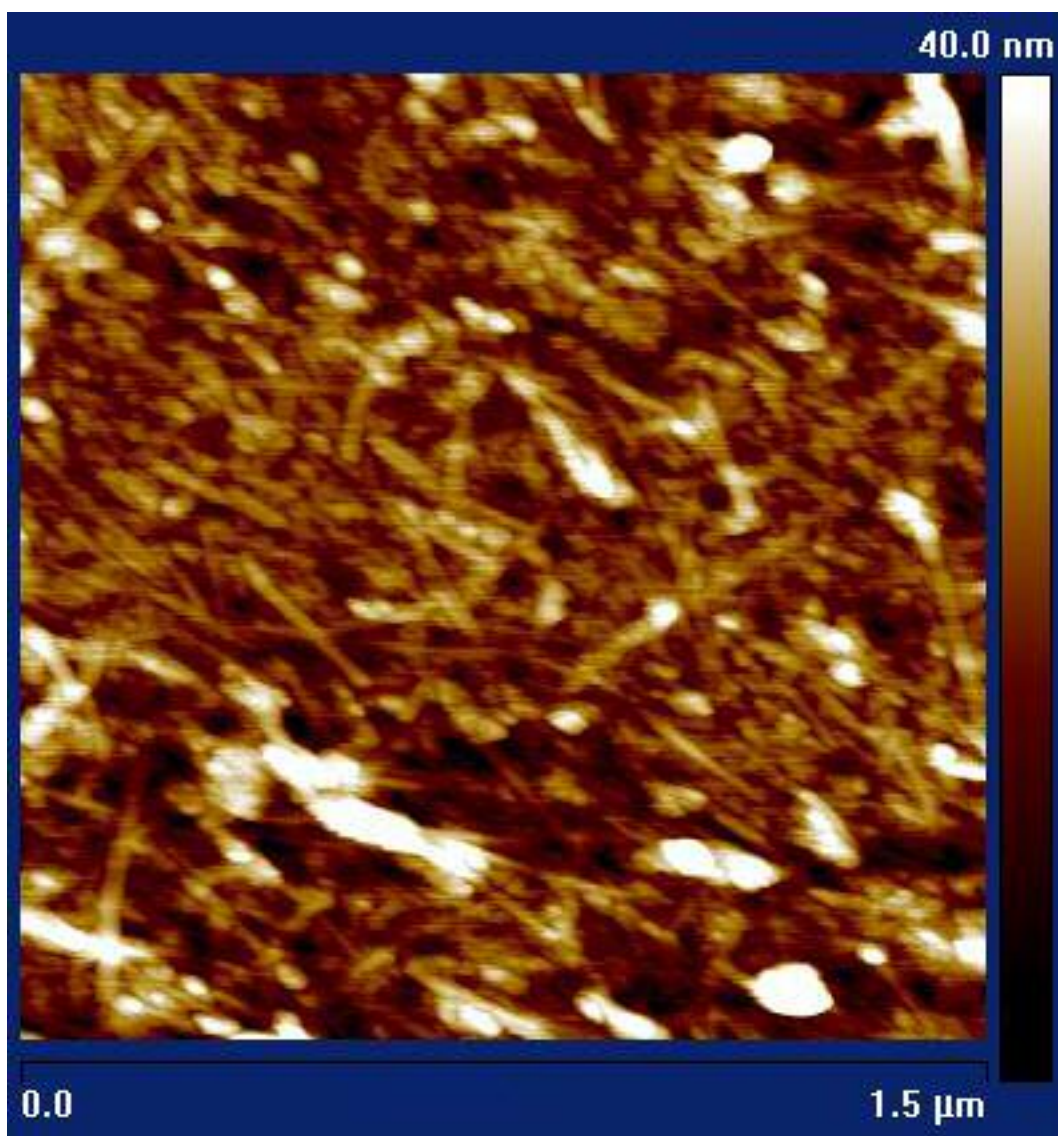
**Figure S-3.** TGA-MS of flocculated ribbons and PDDA.

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**Figure S-4.** Schematic drawing of electrode geometry used for thin film EIS measurements; a) electrode used to measure conductivity in the plane of the film and b) electrode used to measure conductivity perpendicular to the plane of the film.

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**Figure S-5.** AFM image of ribbons in the gap between platinum electrodes, in a ribbon/PDDA film grown layer-by-layer.

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