

Supporting Information

for

Oxidative chemical vapor deposition of polyaniline thin films

Yuriy Y. Smolin[‡], Masoud Soroush[‡] and Kenneth K. S. Lau^{*‡}

Address: Department of Chemical and Biological Engineering, Drexel University,
Philadelphia, PA 19104, USA

Email: Kenneth K. S. Lau - klau@drexel.edu

* Corresponding author

‡ Equal contributors

Additional data

Scanning Electron Microscopy

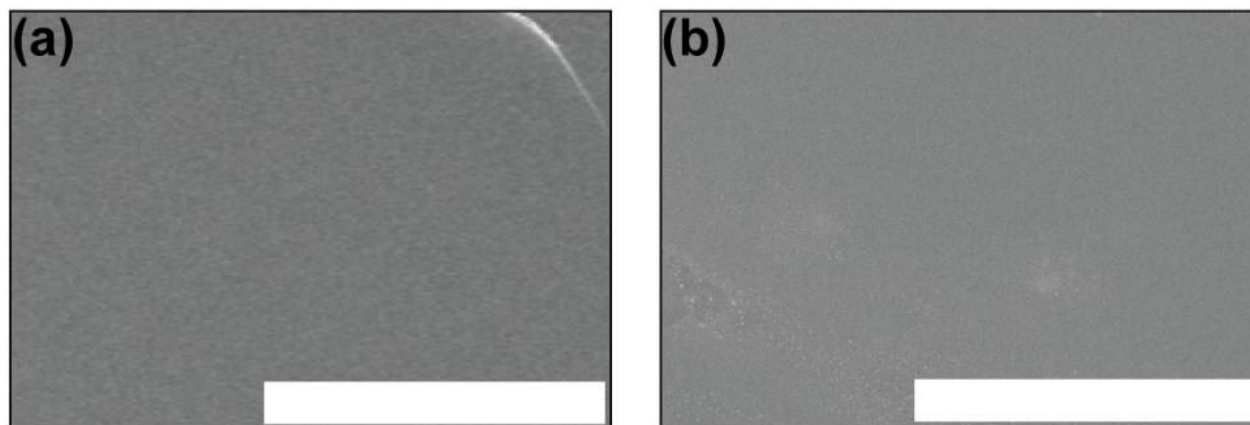


Figure S1: Top-down SEM of (a) as-deposited, and (b) THF-washed oCVD PANI films at lower magnification. Scale bar is 10 μm .

Fourier Transform Infrared Spectroscopy

Table S1: Major FTIR peak positions and assignments for oCVD PANI.

| Peak Position (cm^{-1}) | Peak Assignment | Reference (in main paper) |
|------------------------------------|--|---------------------------|
| 3304 | NH stretch | [44-46] |
| 3100–3000 | CH stretch | [44-46] |
| 1168–1160 | $-\text{NH}^+=$ stretch / CH vibration | [46,47] |
| 865–821 | CH vibration (out-of-plane) | [47-49] |
| 1588–1577 | Quinoid ring stretch | [50,51] |
| 1510–1490 | Benzenoid ring stretch | [50,51] |
| 1382 | CN stretch of quinoid ring | [50] |
| 1635 | NH scissoring vibration of aromatic amines | [52] |
| 749 | CH out-of-plane bending | [48] |
| 688 | CH out-of-plane ring deformation | [48] |

X-ray Photoelectron Spectroscopy

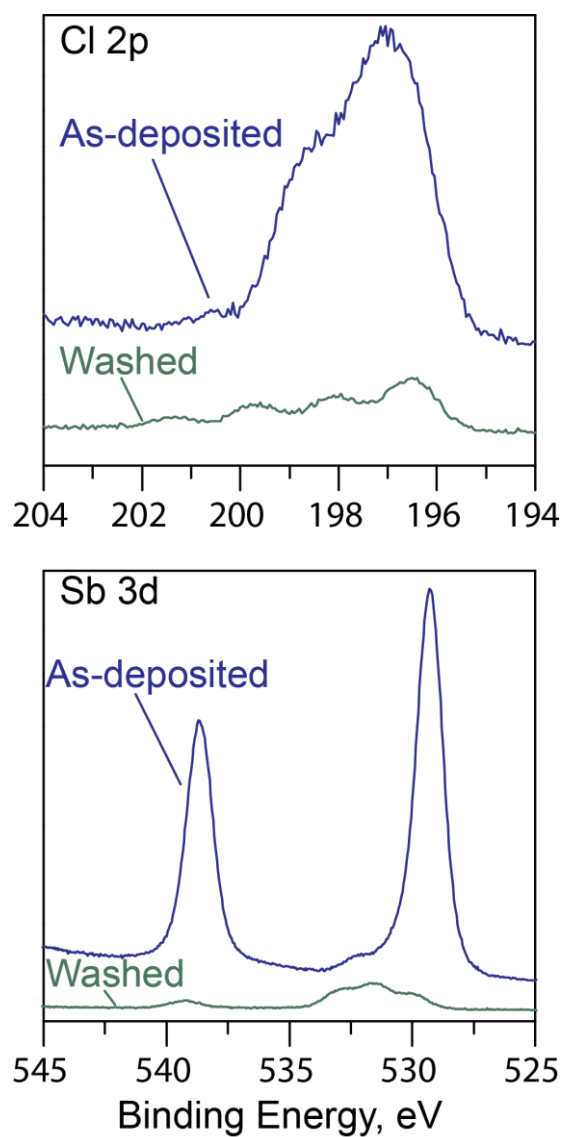


Figure S2: High-resolution Cl2p (top) and Sb3d (bottom) XPS spectra of as-deposited (blue) and washed (green) oCVD PANI films.