Supplementary Materials

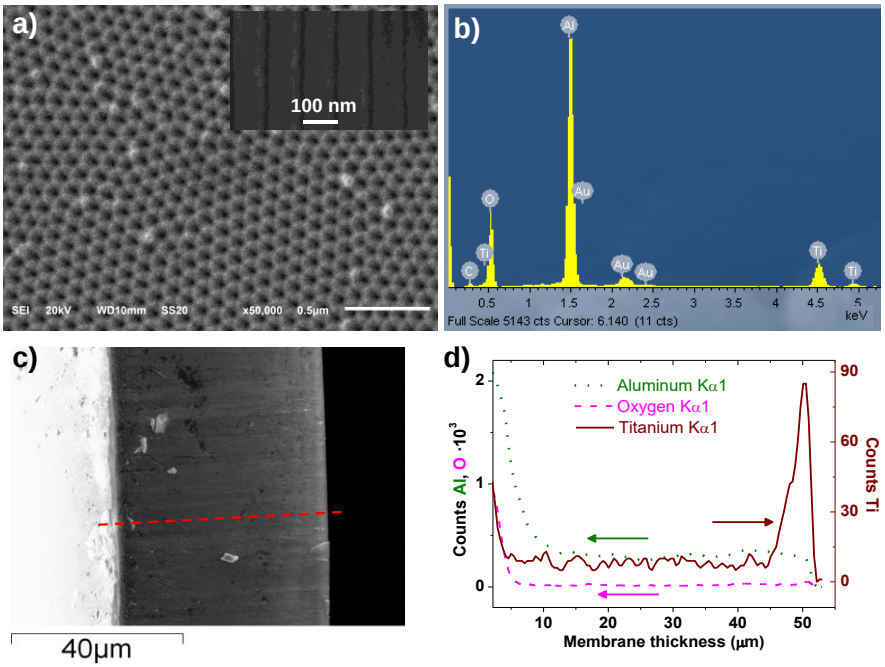

Figure S1. (**a**) Top-view SEM image of the NPAS + TiO_2 sample. The inset shows a high magnification SEM image of the parallel aligned nanopores taken at the cross-section: (**b**) EDX spectrum of (a), indicating the presence of carbon, titanium, oxygen, and aluminum. The Au peaks arise from the sputtered conductive gold layer deposited prior to SEM characterization. (**c**) Cross-section SEM image of the whole thickness of the NPAS + TiO_2 sample. (**d**) EDX line-scan of the Al, O, and Ti distribution measured along the dashed red line in (c).

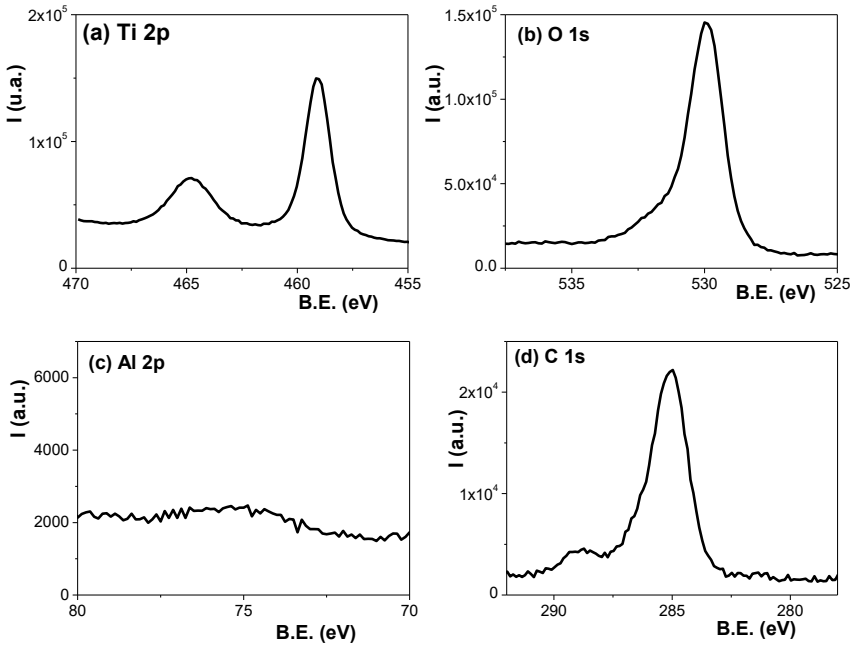

Figure S2. Core level spectra of elements found on the surface of the NPAS + TiO_2 sample: (**a**) Ti 2p, (**b**) O 1s, (**c**) Al 2p, and (**d**) C 1s.

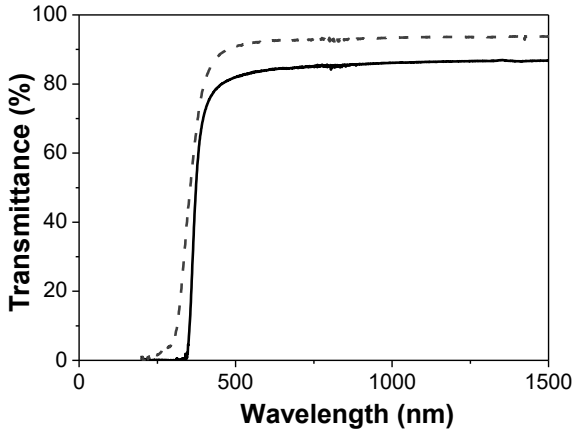

Figure S3. Light transmittance (%) as a function of wavelength for NPAS (grey dotted line) and NPAS + TiO_2 (black dense line) samples.

Table 1. Chemicals employed in the different NPAM synthesis and ALD deposition steps.

Chemicals	Purity (%)	CAS	Supplier
Oxalic Acid Dihydrate	100	6153-56-6	VWR, Radnor, PA, USA
Orthophosphoric Acid	85	7664-38-2	VWR, Radnor, PA, USA
Hydrochloric Acid	37	7647-01-0	VWR, Radnor, PA, USA
Perchloric Acid	70	7601-90-3	VWR, Radnor, PA, USA
Ethanol Absolute	100	64-17-5	VWR, Radnor, PA, USA
2-Propanol	100	67-63-0	VWR, Radnor, PA, USA
Copper (II) chloride dihydrate	100	10125-13-0	VWR, Radnor, PA, USA
Chromium (VI) oxide	99	1333-82-0	Alfa Aesar, Ward Hill, MA, USA
Trimethylaluminum	98	75-24-1	Cymit Quimica, Barcelona, Spain
3-Aminopropyltriethoxysilane	98	919-30-2	Cymit Quimica, Barcelona, Spain
Titanium (IV) i-propoxide	98	546-68-9	Strem Chemicals, Newburyport, MA, USA