



## Technical Data Sheet

### ACS Material Single-Pass AAO Templates

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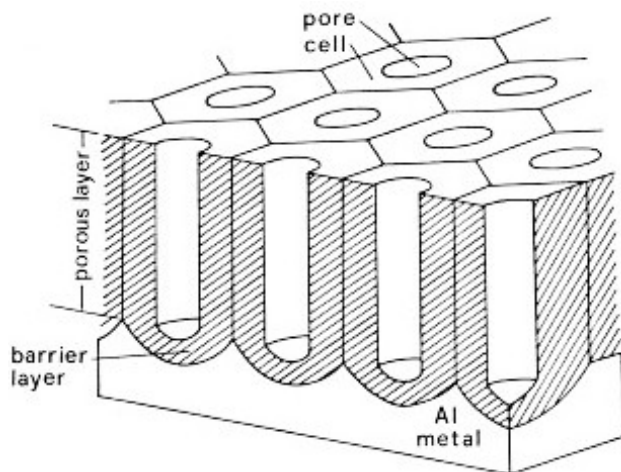
[3 – Applications](#)

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#### **Contact Information:**

Manufacturer: ACS Material, LLC.  
Address: 959 E Walnut St. Suite 100  
Pasadena, CA 91106, USA  
Phone: (866)-227-0656  
Fax: (781)-518-0284  
E-Mail: [contact@acsmaterial.com](mailto:contact@acsmaterial.com)  
Revision: 011519

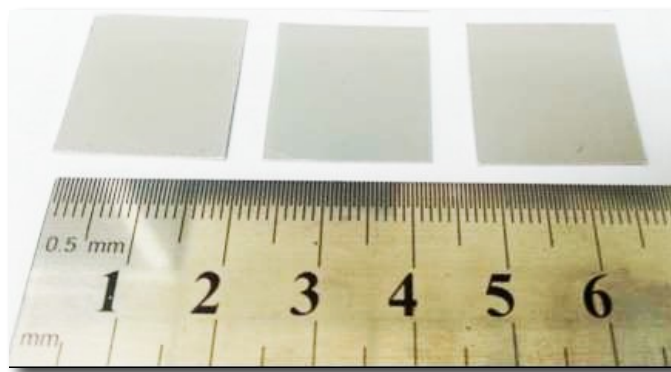
## 1. Structure Features



Structure for Single-Pass AAO Templates

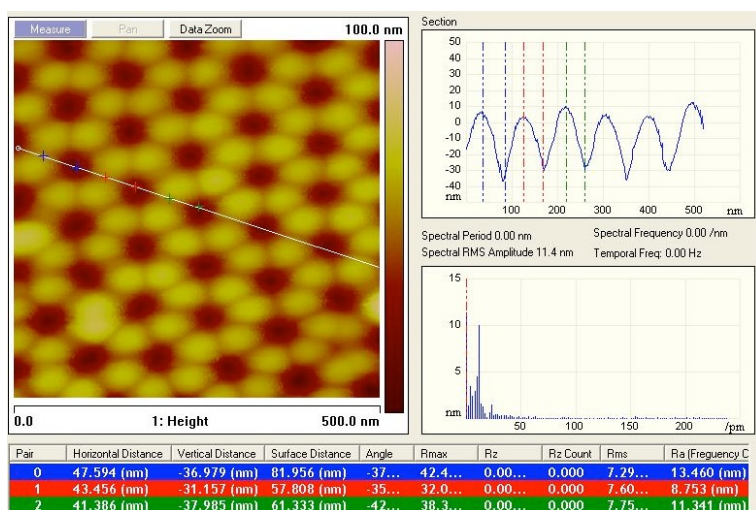
Types of Single-Pass AAO Templates

Product No.	Aperture (nm)	Hole Depth	Hole Cycle (nm)	Square Side length (cm)
A1030211	50	300nm±30nm	100	2
A1030011	50	5μm±0.5μm	100	2
A1030111	50	60μm±10μm	100	2
A1050011	90	5μm±0.5μm	100	2
A1050111	90	60μm±10μm	100	2
A1060011	200	5μm±1μm	450	2
A1060111	200	60μm±10μm	450	2
A1080011	400	5μm±1μm	450	2
A1080111	400	60μm±10μm	450	2

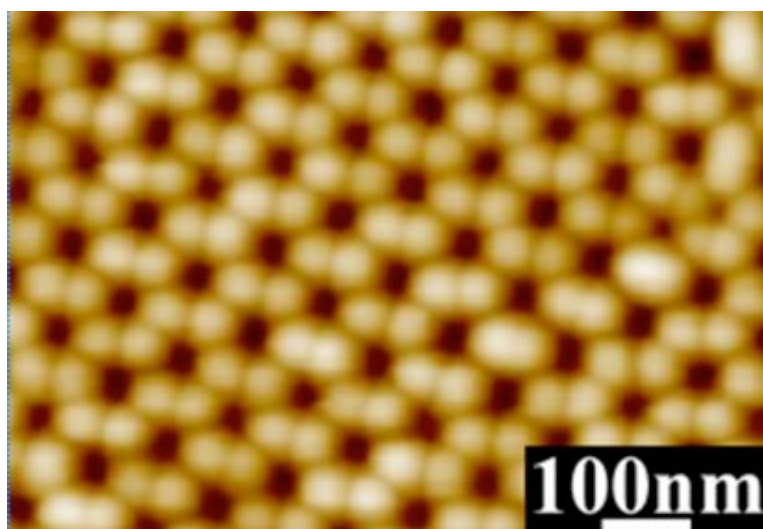


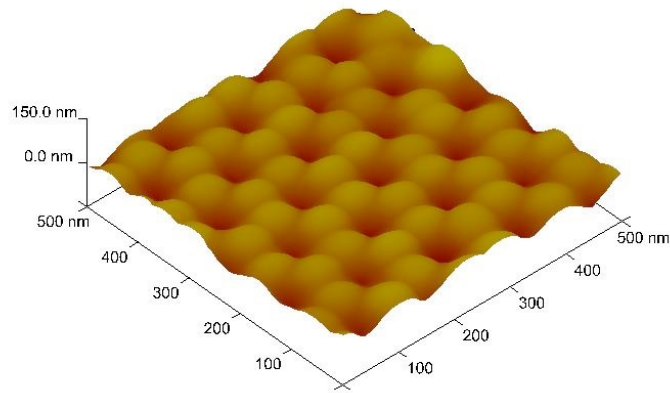
Aperture 200nm, Hole Depth 5 $\mu$ m

## 2. Characterizations

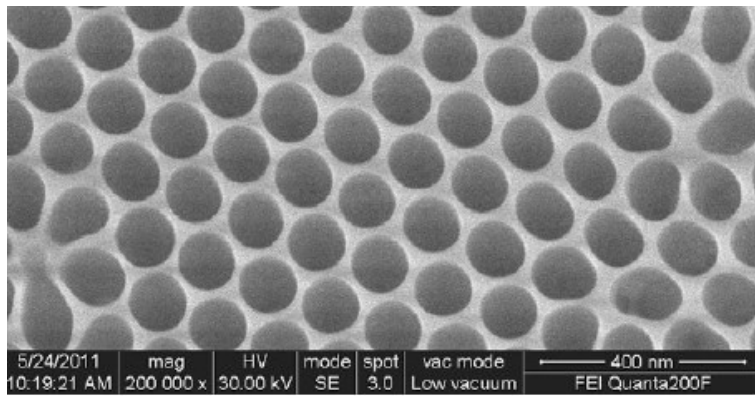


AFM image of ACS Material AAO Templates with Aperture 50nm

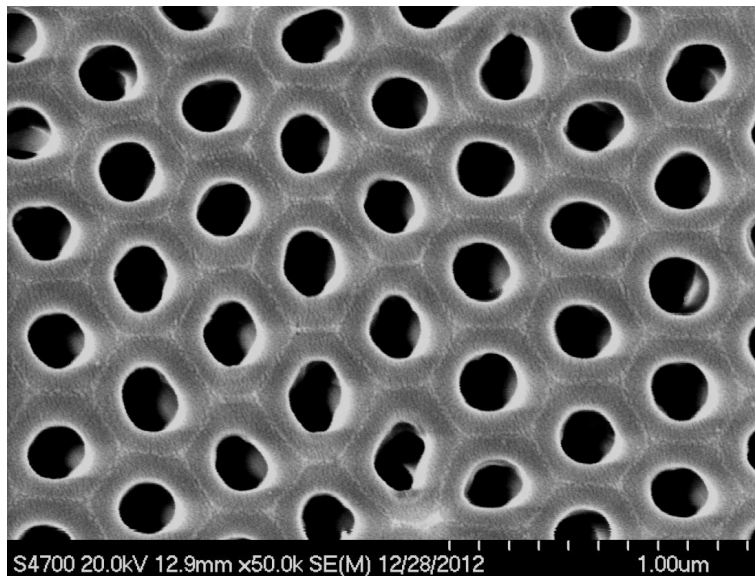




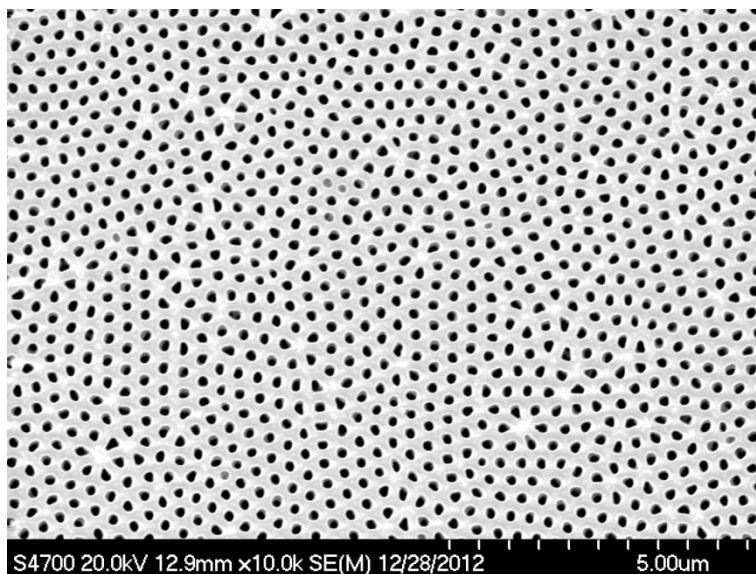
AFM image of ACS Material AAO Templates with Aperture 40-6nm



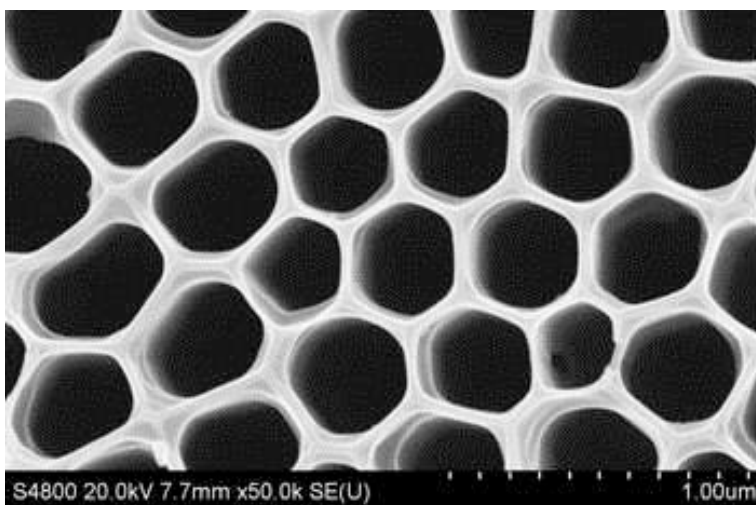
Typical SEM Image of ACS Material AAO Templates with Aperture 100 nm



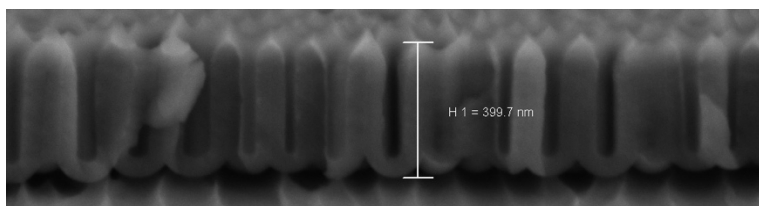
Typical SEM Image of ACS Material AAO Templates with Aperture 200 nm (1)



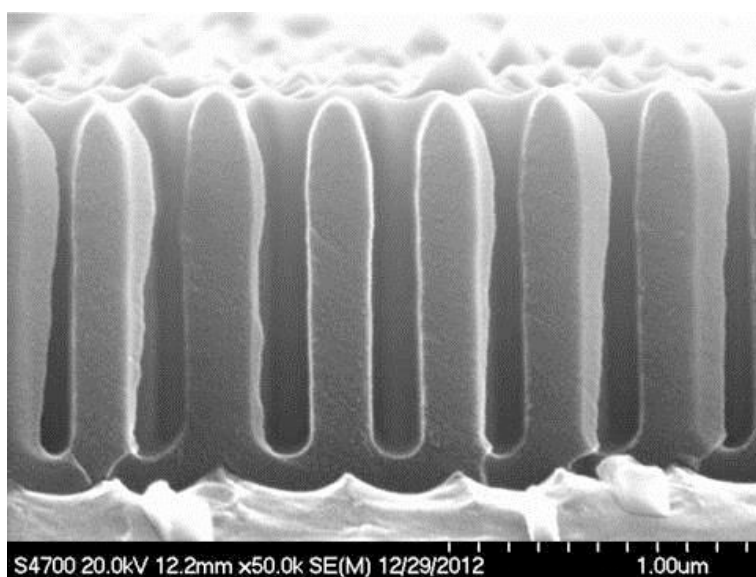
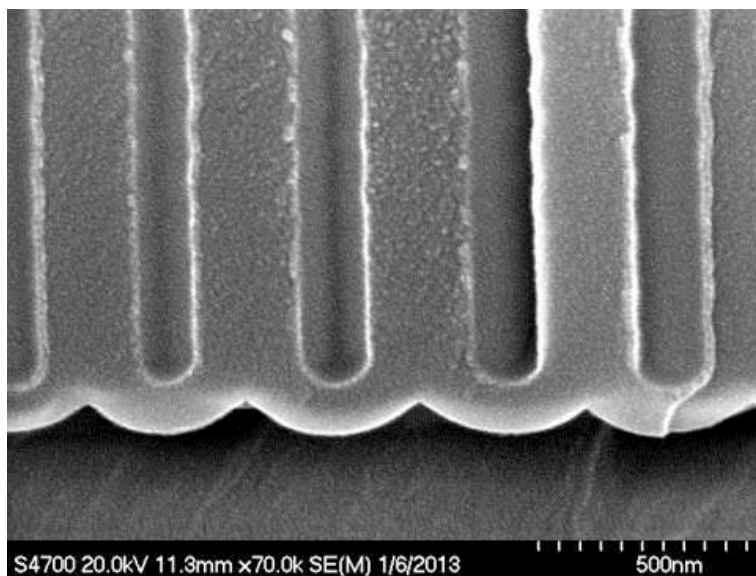
Typical SEM Image of ACS Material AAO Templates with Aperture 200 nm (2)

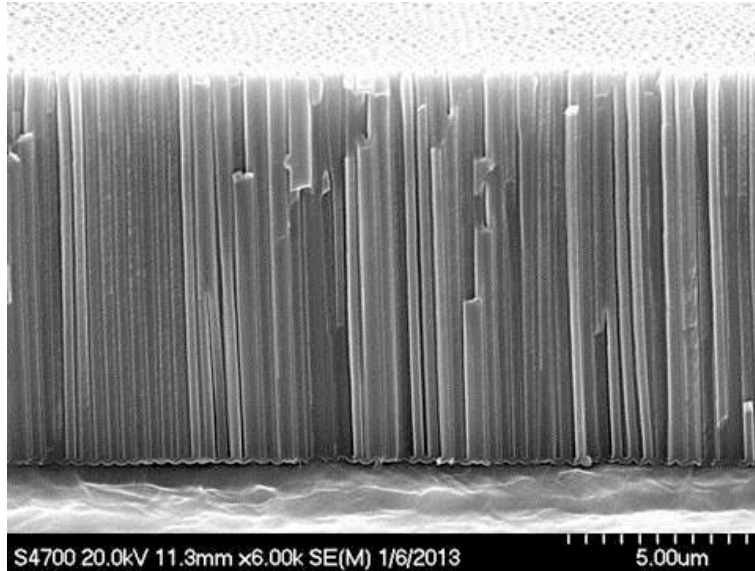


Typical SEM Image of ACS Material AAO Templates with Aperture 400 nm



Typical SEM Image of ACS Material AAO Template Cross Section with Aperture 50 nm





Typical SEM Image of ACS Material Single-Pass AAO Templates

**ACS Material provides the following order services:**

- 1) Improve wear resistance of the lubricating oil.
- 2) Large size or special parameter AAO Templates.
- 3) Transfer of ultrathin AAO. The present standard product: 50-400 nm pore diameter, 110-450nm interpore distance, and 5-50um thickness

**3. Applications**

- 1) As a mask for nanodot or quantum dot array by deposition methods
- 2) As an etching mask for nanopore array on substrates
- 3) Nano-imprinting template for nanostructures on softer surfaces, especially polymer surfaces.
- 4) For substrates: Transfer to silicon, silicon oxide, ITO, glass, copper, HOPG etc.

ACS Material must assume that the surface of any provided substrates have been thoroughly cleaned and cannot take responsibility for pre-existing impurities. Please call with your particular requirements.

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