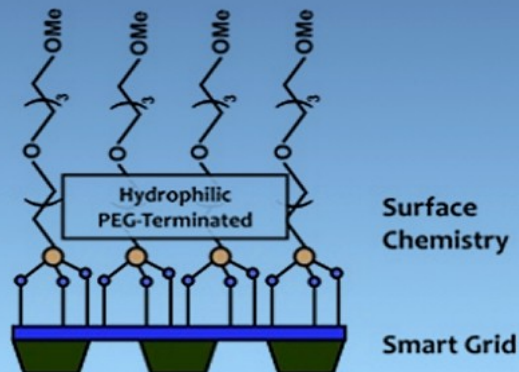
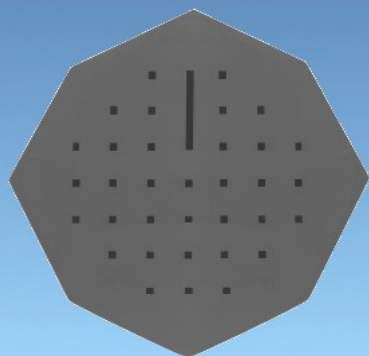




## Smart Grids™ Functionalized TEM Grids



Smart Grids™ represent the next step in TEM grids for sample preparation. These grids are a new revolutionary tool for enhanced visualization at the nanoscale. By creating a functionalized surface, the grid surface itself now becomes part of the sample preparation process. This allows Smart Grids™ the ability to understand function and form at the nanoscale level with applications ranging from materials to life sciences to semiconductor processing.

What are Smart Grids™:

Smart Grids™ are micromachined from ultrathin silicon wafers to provide the greatest flexibility in grid geometry and configuration. The 3 mm octagon grids have a square window size of 50X50 or 100X100 micron windows with 51 and 34 windows per grid respectively. These grids are machined with a single rectangular window that serves as an index mark for reproducible imaging. Smart Grids™ employ thermally grown SiO<sub>2</sub> membrane windows that are available with a standard membrane thickness is 25 nm and the grid thickness is 100 microns. The 25 nm windows are the most generally applicable showing excellent image resolution with minimal background. Most SMART Grids are hydrophilic unless otherwise stated. The membrane windows are robust to a variety of chemical and thermal processing treatments provided they are properly handled. Other thickness and styles are anticipated to be added in the near future.

**just a click away.** [2spi.com/smartgrids](http://2spi.com/smartgrids)

Visit SPI Supplies to view the complete on-line catalog with up-to-the-minute product and pricing information.

**SPI Supplies** Division of **STRUCTURE PROBE, Inc.**

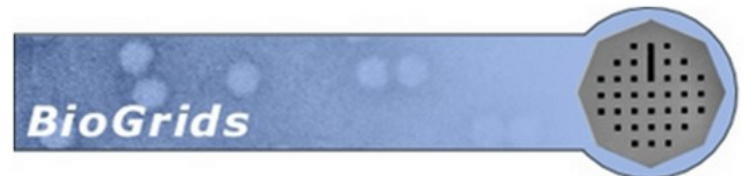
[2spi.com](http://2spi.com)

# Smart Grids™

## NanoGrids™ / BioGrids™

The Smart Grids™ product line can provide a unique opportunity to image the world of molecular-scale engineering. Smart Grids are more than a replacement grid for transmission electron microscopy (TEM); they can change the way electron microscopy is used and can have wide application for multiple techniques for analytical characterization.

SMART Grids™ are smart because biological and nanomaterials are attracted to and self-assemble on the grid surface via an active interface. The ultrathin membranes are electron transparent and can be hydrophilic, hydrophobic or charged to provide the right substrate for all your EM needs.



NanoGrids™ set a new standard for characterization of nanomaterials using TEM, SEM, and AFM. NanoGrids are available with a range of active surfaces to enable uniform dispersion and accurate characterization of many different types of materials by liquid or vapor phase deposition.

BioGrids™ are functionalized SMART Grids that promote affinity for proteins, viruses, or other biomolecules through both non-specific bonding and analyte-specific bonding. BioGrids are suitable for use with both stained samples and cryoEM.

### Products

- B** [NanoBasic Grids](#)  
Hydrophilic, standard use microscopy grid.
- H** [NanoHydrophobic Grids](#)  
Hydrophobic, standard use grid.
- O** [NanoOxide Grids](#)  
Specialty oxide coated SMART grids.
- F** [Functional Grids](#)  
Functionalized SMART grids.
- +** [NanoPlus Grids](#)  
Hydrophilic, positive charge grid.
- [NanoMinus Grids](#)  
Hydrophilic, negative charge grid.
- N** [NanoNeutral Grids](#)  
Hydrophilic, neutral charge grid.

### Products

- P** [BioPEG Grids](#)  
Hydrophilic, neutral charge grid.
- H** [BioHydrophobic Grids](#)  
Hydrophobic, standard use grid.
- L** [BioLysine Grids](#)  
Hydrophilic, lysine binding grid.
- F** [Functional Grids](#)  
Functionalized SMART grids.
- +** [BioPlus Grids](#)  
Hydrophilic, positive charge grid.
- [BioMinus Grids](#)  
Hydrophilic, negative charge grid.
- A** [Protein A Grids](#)  
Protein A coated grids.