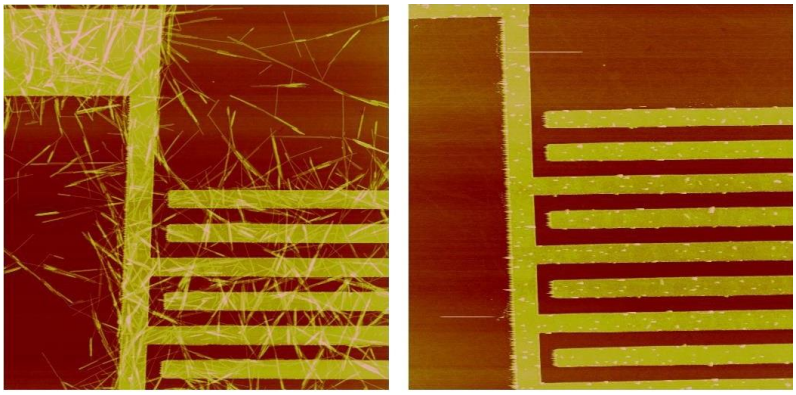
First Contact™ Nanoscale Particle Removal

First Contact™ polymer solutions can remove nanoscale particles. The polymer is applied as a liquid and encapsulates contamination down to the nanoscale. As the polymer dries the particles are held within the dry film and lifted from the surface revealing a substrate clean to the molecular level.

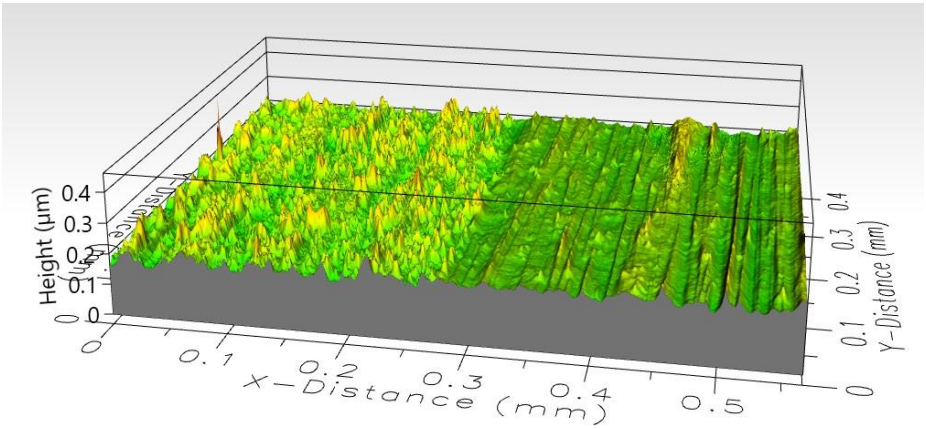
The images below show the extent to which First Contact Polymers will remove nanoscale particles. The dry polymer film lifts the particles yet the low adhesion exhibited by the polymer ensures it is safe for all coatings.

In the Atomic Force Microscope images at right the sample area is 10 x 10 microns with a Z scale of 15nm.



Images courtesy of Dr. Walter Smith, Haverford College

"We tried it (First Contact) and it working very well. Just short of miraculous, in fact! I've attached Before and After images of our electrodes. In the Before image, you can see lots of porphyrin nanorods covering the electrode pattern. We wanted to re-use the electrodes, which are made by electron beam lithography, and require a great deal of effort. As you can see from the After image, the First Contact removed all the nanorods! There are still barely discernable "ghosts" of the nanorods. We've not yet tried whether a second application of First Contact would get rid of the ghosts. I'm really impressed!" Dr. Walter Smith, Haverford College 11/2017



In this white light interferometry data, the Z scale (height) is 1/10th micron. First Contact Polymer was applied to the right half of this diamond turned copper substrate, allowed to dry, then peeled. One can clearly see nanoscale particle profiles on the left half of the image (uncleaned) and the substrate's actual surface texture in the right half (cleaned). All contamination was removed and the surface left pristinely clean. Data courtesy of Photonic Cleaning Technologies 3/2020

First Contact™ Polymers – A Solution for Precision Cleaning Needs!

All First Contact™ Polymer Solutions, M Class, legacy Colorless and Red, provide Next Generation cleaning technology allowing researchers and practitioners the ability to clean optics without any possibility of scratching precision surfaces or optical thin films. These products can be applied with a brush, pipette, or by spraying. When used properly there is no way to scratch the substrate – no matter how much particulate matter is on the dirty surface.

Contact Photonic Cleaning Technologies or one of our distributors for more information about First Contact™ Polymer Solutions.

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