

# NANOSCIENCE COLLOQUIUM

## Metal-assisted chemical etching for the nanofabrication of diffractive x-ray optics

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Abstract: X-ray microscopy is an established imaging technique at synchrotron radiation sources for the investigation of nanomaterials. X-ray optics are key components for x-ray microscopes and consist of nanostructured materials themselves, like multilayers or surfaces polished with atomic precision. Our group has since a long time worked with the development and fabrication of diffractive zone plate optics, a popular type of optical component due to its versatility and ease of use. In my talk I will explain the techniques that are used for modern zone plate fabrication and discuss possible challenges. I will specifically describe our efforts on the most recent addition to the methods for diffractive optics fabrication, metal assisted chemical etching of silicon (MACE or MacEtch).

