

## Recent Advances in Scanning Micro/Nanofocus X-ray Diffraction at ID13, the Microfocus Beamline at the ESRF

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ID13, the microfocus beamline at the ESRF (Grenoble, France) offers intense, focused X-ray beams (down to 100 nm) and a highly flexible sample environment, permitting the study of a broad range of materials. The recent acquisition of the high speed, high resolution EIGER 4M (DECTRIS) detector has unlocked new possibilities for probing local variations in the structure of materials across many length scales. I will present some scientific highlights of recent work that I have been involved with at ID13, including *in operando* liquid crystal cells, spider silks, perovskite photovoltaics and *in situ* studies during dip coating of organic electronic materials. These investigations make use of scanning nano/microfocus small/wide-angle X-ray scattering in both transmission and grazing-incidence modes. In addition to the scientific highlights, I will present some of our recent software development and sample environments.