Taking a Hard Look at Soft X-ray Scattering ALEXANDER HEXEMER, CHENG WANG, LBNL — For many years neutron and X-ray scattering has been a trusted tool for polymer scientist. In the hard X-ray regime contrast for scattering has been limited to the difference in electron density between different components. At the Advanced Light Source we have been developing a techniques that combines the advantages of traditional scattering with chemical sensitive spectroscopy. Using soft X-rays at selected photon energies we can tune the contrast between different polymers based on there chemical makeup. We have applied this to a variety of polymer systems.

Alexander Hexemer
LBNL

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