

Agenda

5th Annual SSRL Workshop on Synchrotron X-ray Scattering Techniques in Materials and Environmental Sciences: Theory and Application		
Tuesday - Thursday June 1-3		
Tuesday, June 1 – Bldg. 48, Redwood Rooms (ROB)		
8:00 - 8:50	Registration, with coffee and light refreshments	
8:50 - 9:00	Welcome and introductory comments (M Toney)	
9:00 - 9:40	Introduction to SR-based scattering techniques at SSRL (M Toney)	
9:40 - 10:20	Everything you wanted to know about SAXS (J. Pople)	
10:20 - 10:40	Coffee break	
10:40 - 11:20	What use is reciprocal space? An introduction (J. Bargar)	
11:20 - 12:00	Interpreting Reciprocal Space-peaks (A Mehta)	
12:00 - 1:30	Lunch (lunch not provided - time is allotted for participants to go off-site, if desired)	
<i>Parallel sessions addressing technical aspects of techniques</i>		
1:30 - 2:15	Bulk-Structure Techniques Intro (A Mehta) Bulk structure characterization, including Rietveld - Part I (J Stubbs)	Surface/Thin Film Techniques Intro (M Toney) Epitaxial Thin film scattering (A. Vailionis)
2:15 - 3:00	Bulk structure characterization, including Rietveld – Part II (J Lezama Pacheco)	Polycrystalline thin film scattering (M. Toney)
3:00 - 3:30	Cookies and refreshments	
3:30 - 4:15	pair distribution function (M Michel)	Textured polycrystalline thin film scattering and reflectivity (M. Toney)
4:15 - 5:00	Anomalous X-ray Diffraction (S Misra and J Bettinger)	Monolayers, ultrathin films on liquids & solids C Miller /S Mannsfeld

Wednesday, June 2 –Bldg. 48 (ROB) from 8:30-11:30/Please meet escorts at Gate 17, 1:00 (prompt) after lunch		
8:30 - 9:00	Coffee and light refreshments	
9:00 - 9:30	Beam lines at SSRL (B Johnson)	
9:30 - 10:15	Data collection strategies and detectors (A Mehta)	
10:15 – 10:30	Coffee break	
10:30 - 11:30	Data collection and reduction software: spec (S Mannsfeld)	
11:30 - 1:00	Lunch (not provided - time is allotted to go off-site, if desired)	
<i>Beam Line Practical Sessions (3:00 - 3:30 Break)</i>		
1:00 - 5:00	Afternoon concurrent hands-on practical sessions:	
BL 1-4	SAXS	J. Pople, C Dotzler
BL 2-1	X-ray reflectivity	C Miller, S Misra
BL 7-2	Polycrystalline thin film scattering	M Toney, J Bettinger
BL 11-3	Transmission x-ray diffraction with area detector	A Mehta, M Bibee
Thursday, June 3- Please meet escorts at Gate 17, 9:00 (prompt)		
<i>Beam Line Practical Sessions</i>		
9:00 - 12:00	Morning concurrent hands-on practical sessions:	
BL 1-4	SAXS	J. Pople, C Dotzler
BL 2-1	High resolution powder diffraction	J Lezama Pacheco, J Stubbs, A Mehta, S Mannsfeld
BL 7-2	Epitaxial thin film scattering	M. Toney
BL 11-3	Thin film scattering	C Miller, E Verploegen
12:00 – 1:00	Lunch (not provided - time is allotted for participants to go off-site, if desired) Please meet escorts at Gate 17 at 1:00 (promptly for photo)	
<i>Beam Line Practical Sessions - Data Analysis Methods</i>		
1:30 - 3:15	Afternoon part I hands-on practical sessions:	
bldg 270 conference room	SAXS	J. Pople
room 214, bldg 130	Rietveld refinement strategies for bulk polycrystalline materials - Part I	J Lezama Pacheco, J Stubbs, A Mehta
bldg 137; room 226	X-ray reflectivity fitting	C Miller, M Bibee
bldg 120 conference room	Area detector diffraction: thin films – data reduction)	S Mannsfeld, E Verploegen
3:30 - 5:00	Afternoon part II hands-on practical sessions:	
bldg 270 conference room	SAXS – saxsfit & saxmorph	C Dotzler, C Miller
room 214, bldg 130	Rietveld refinement strategies for bulk polycrystalline materials - Part II	J Lezama Pacheco, J Stubbs, A Mehta
bldg 137; room 226	Area detector diffraction: thin films, pole figures, small molecule organic films	M Toney, L Jimison,
bldg 120 conference room	Warren Averbach analysis of peak shapes	J Rivnay, E Verploegen