

# Photon-in and Photon-out X-ray Spectroscopy in Material Sciences, Environmental Energy and Chemical Analysis

(October 19-20, 2004)

## Program:

10:10 Opening

10:15 Joseph Nordgren (30), Shik Shin (30), Coryn Hague (25), Dave Ederer (25), Anders Nilsson (25)

12:30 Lunch

13:30 George Sawatzky (30), Yi Luo (30), Akio Kotani (30)

15:00 Group Photo

15:10 Coffee break

15:30 Zahid Hasan (20), Tony Van Buuren (20), Yasuji Muramatsu (20), Yi-De Chuang (20), Masamitsu Watanabe (20)

17:30 Dinner

08:30 Phil Ross (30), Gabor Somorjai (30), Steve Cramer (20), James Penner-Hahn (20)

10:10 Coffee Break

10:30 Laurent Duda (20), Kevin Smith (20), Alex Moewes (20), Clemens Heske (20), David Shuh (20)

12:10 Closing Discussion

12:30 Lunch

## Titles:

1. Tony Van Buuren (Lawrence Livermore National Laboratory): "Soft x-ray emission studies of electronic properties in nanostructures"
2. Yi-De Chuang (Lawrence Berkeley National Laboratory): "Resonant X-ray Scattering (RXS) on layered manganites"
3. Steve Cramer (UC Davis): "X-ray fluorescence spectroscopy of 3d metal complexes"
4. Laurent Duda (Uppsala University, Sweden): "Entering a new phase: Studying liquids with RIXS at ALS"
5. Dave Ederer (University of Tulane): "Angle resolved soft x-ray spectroscopy in emission and absorption"
6. Clemens Heske (University of Nevada, Las Vegas): "Studying interfaces and other buried things with X-ray emission spectroscopy"

7. Zahid Hasan (Physics, Princeton University): “Asymmetries in the electron-hole pair excitations in doped cuprates and correlations with the phase diagram: A view from inelastic x-ray scattering”
8. Coryn Hague (Laboratoire de Chimie Physique-Matière et Rayonnement, France): “Resonant X-ray emission: preparing for SOLEIL”
9. Akio Kotani (Soft X-ray Spectroscopy Laboratory, RIKEN, Japan): “Magnetic Circular Dichroism of Resonant X-ray Emission Spectroscopy in Rare Earth Systems”
10. Yi Luo (Royal Institute of Technology, Stockholm, Sweden): “First Principle Calculations of Soft X-ray Spectroscopy”
11. Alex Moewes (University of Saskatchewan, Saskatoon, Canada): “Soft X-Ray Spectroscopy as a tool for Materials Science”
12. Yasuji Muramatsu (Spring 8, Japan): “Soft x-ray emission spectroscopy of carbon materials; Angle-resolving measurements and industrial applications”
13. Anders Nilsson (SSRL & Stockholm University, Sweden): “Probing chemical bonds using x-ray spectroscopy; from catalysis to liquid water”
14. Joseph Nordgren (Uppsala University, Uppsala, Sweden): “Soft X-ray Fluorescence Spectroscopy for Materials Science and Chemical Physics”
15. James Penner-Hahn (The University of Michigan): “X-ray emission spectroscopy as a probe of electronic structure in  $d^{10}$  metal Ions. A possible role for soft x-ray XES in studies of Zn protein”
16. Phil Ross (Materials Sciences, Lawrence Berkeley National Laboratory): “Ion-pairing and Ion Solvation in Lithium Battery Electrolytes from soft X-ray Absorption and Emission Spectroscopy”
17. George Sawatzky (Physics Department, UBC, Canada): “What can we learn from elastic and high resolution inelastic resonant soft x-ray scattering”
18. Shik Shin (RIKEN/Spring 8, Japan): “Soft X-ray emission study on electronic structure and Fermiology of transition metal compounds”
19. David Shuh (CSD, LBNL): “X-ray Emission Spectroscopy of 5f and Environmental Materials”
20. Kevin Smith (Boston University): “Electronic Structure in Thin Film Organic Semiconductors as determined by Resonant Soft X-Ray Emission and Inelastic X-Ray Scattering”
21. Gabor Somorjai (University of California, Berkeley): “Photon-in and Photon-out Spectroscopies in Material Sciences, Environmental and Energy Sciences and Chemical Analysis”
22. Masamitsu Watanabe (Lawrence Berkeley National Laboratory): “Standing-wave excited XES and RIXS: new tools for buried interface studies”