Plutonium Futures—The Science 2006
Asilomar, Pacific Grove, CA 9-13 July 2006
At a Glance

SUNDAY

Breakfast 8:00 AM For those checked in to Asilomar 8 July	Location: Crocker Dining Hall	
Sunday 11:00 AM to 9:00PM CONFERENCE ARRIVAL/REGISTRATION	Location: Hearst Building Lobby	Conference Admin: **Dawn Brosnan**
Lunch 12:00 Noon For those checked in to Asilomar 8 July	Location: Crocker Dining Hall	
Sunday 1:00 PM Tutorial I: ***Frontiers in Metallic Plutonium***	Location: Merrill Hall	Instructors **Adam Schwartz** **John Sarrao**
Sunday 2:15 PM Tutorial II ***Pu and the Environment***	Location: Merrill Hall	Instructors: **Annie Kersting** **Mary Neu**
Sunday 3:30 PM Tutorial III ***Science and Technology Needs to Monitor Plutonium for International Arms Control and Nonproliferation Agreements***	Location: Merrill Hall	Instructors: **Leslie J. Jardine** **Mona Dreicer**
Sunday 6:00 PM to 9:00 PM Registration Buffet / Evening Meal	Location: Hearst Building Deck	

MONDAY

Breakfast 7:00 AM	Location: Crocker Dining Hall	
Monday 8:00 AM Welcomes	Location: Merrill Hall	Program Chair: **Michael Fluss**
Monday 8:10 AM Welcome on behalf of LLNL	Location: Merrill Hall	Co-General Cair: **Tomas Diaz de la Rubia**
Monday 8:25 AM Welcome on behalf of LANL	Location: Merrill Hall	Co-General Chair: **Siegfried Hecker**
Monday 8:40 AM Plenary	Location: Merrill Hall	Chair: **David Hobart**
Coffee 9:40 AM	Location: Merrill Hall	
Monday 10:10 AM **Coordination/Organometallic Chemistry**	Location: Merrill Hall	Co-chairs: **David Shuh** **Pat Allen**
Monday 10:10 AM **Solid-State**	Location: Fred Farr	Co-chairs: **John Sarrao** **Alex Mirmelstein**

Lunch 12:00 Noon	Location: Crocker Dining Hall	
Monday 1:00 PM Plenary	Location: Merrill Hall	Chair: **Gordon Jarvinen**
Monday 2:00 PM **Conference Photo**	Location: Will be Announced	
Monday 2:20 PM **Environmental Chemistry** Coffee at 3:35 PM at Merrill	Location: Merrill Hall	Co-chairs: **Annie Kersting** **David Clark**
Monday 2:20 PM **Materials Science** Coffee at 3:35 PM at Fred Farr	Location: Fred Farr	Co-chairs: **Keri Blobaum** **Ted Massalski**
Dinner 6:00 PM	Location: Crocker Dining Hall	
Monday 7:00 PM **Round Table:** ***Legacy Issues***	Location: Merrill Hall	Moderator: **Greg Choppin**: Panelists: **David Clark** **Boris Myasoedov** **Charles Madic**
Monday 8:00 PM to 10:00 PM **Poster Session** Refreshments available	Location: Merrill Hall	Chair: **Kevin Moore**

TUESDAY

Breakfast 7:00 AM	Location: Crocker Dining Hall	
Tuesday 8:00 AM Plenary	Location: Merrill Hall	Chair: **Gerry Lander**
Tuesday 9:05 AM **Fuel Cycle: Separations & Reprocessing** Coffee at 10:20 AM at Merrill	Location: Merrill Hall	Co-chairs: **Charles Madic** **Michel Beauvy**
Tuesday 9:05 AM Solid-State II: **Pu 115** Coffee at 10:20 AM at Fred Farr	Location: Fred Farr	Co-chairs: **Joe Thompson** **Roberto Caciuffo**
Lunch 12:00 Noon	Location: Crocker Dining Hall	
Tuesday 1:00 PM Plenary	Location: Merrill Hall	Chair: **Jean Fuger**
Tuesday 2:10 PM **Fuel Cycle: Advanced Fuels and Waste Forms** Coffee at 3:25 PM at Merrill	Location: Merrill Hall	Co-chairs: **Rod Ewing** **Claude DeGueldre**
Tuesday 2:10 PM **Phase Changes, Phonons, & Entropy** Coffee at 3:25 PM at Fred Farr	Location: Fred Farr	Co-chairs: **Al Migliori** **Natalie Baclet**

Dinner 6:00 PM	Location: Crocker Dining Hall	
Tuesday 7:00 PM **Round Table:** ***New Strategies for Advanced Nuclear Fuel Cycles*** organized by Jor-Shan Choi	Location: Merrill Hall	Moderator: **Sig Hecker**: Panelists: **M. R. Srinivasan** **Chaim Braun** **Burton Richter**
Tuesday 8:00 PM to 10:00 PM **Poster Session** Refreshments available	Location: Merrill Hall	Chair: **Gordon Jarvinen**
WEDNESDAY		
Breakfast 7:00 AM	Location: Crocker Dining Hall	
Wednesday 8:00 AM Plenary	Location: Merrill Hall	Chair: **Akio Nakamura**
Wednesday 9:05 AM **Solution and Gas Phase Chemistry** Coffee at 10:20 AM at Merrill	Location: Merrill Hall	Co-chairs: **Wolfgang Runde** **Thomas Fanghänel**
Wednesday 9:05 AM **Electronic Structure and Physical Properties** Coffee at 10:20 AM at Fred Farr	Location: Fred Farr	Co-chairs: **Tom Zocco** **Jim Tobin**
Lunch 12:00 Noon	Location: Crocker Dining Hall	
Wednesday 1:00 PM Plenary	Location: Merrill Hall	Chair: **Darleane Hoffmann**
Wednesday 2:10 PM **Pu and Actinide Analytical Method**	Location: Merrill Hall	Chair: **Karl Lützenkirchen**
Wednesday 2:10 PM **Surface Science & Corrosion**	Location: Fred Farr	Co-chairs: **Wigbert Siekhaus** **Noah Shamir**
Wednesday 3:30 PM to 5:30 PM **Poster Session** Afternoon coffee available	Location: Merrill Hall	Chair: **Pat Allan**
Wednesday Bonfire Reception 6:00 PM	Location: Bon Fire Pit	
Wednesday Working Banquet Dinner 7:15 PM	Location: Crocker Dining Hall	
Future Lectures 8:30 PM	**Plutonium Science Futures by *Gerry Lander*** **Plutonium World Futures by *Siegfried Hecker***	

THURSDAY		
Breakfast 7:00 AM	Location: Crocker Dining Hall	
Thursday 8:00 AM Plenary	Location: Merrill Hall	Chair: **Claude Guet**
Thursday 9:05 AM **Actinide Compounds and Complexes**	Location: Merrill Hall	Co-chairs: **Dick Haire** **Ken Nash**
Thursday 9:05 AM **Radiation Effects, Defects, Impurities, and Property Changes**	Location: Fred Farr	Co-chairs: **David Geeson** **Wilhelm Wolfer**
Thursday 11:20 AM **Conference Highlights**	Location: Merrill Hall	Speakers: **Gerd Rosenblatt** **Claude Guet** **Akio Nakamura**
Lunch 12:00 Noon	Location: Crocker Dining Hall	

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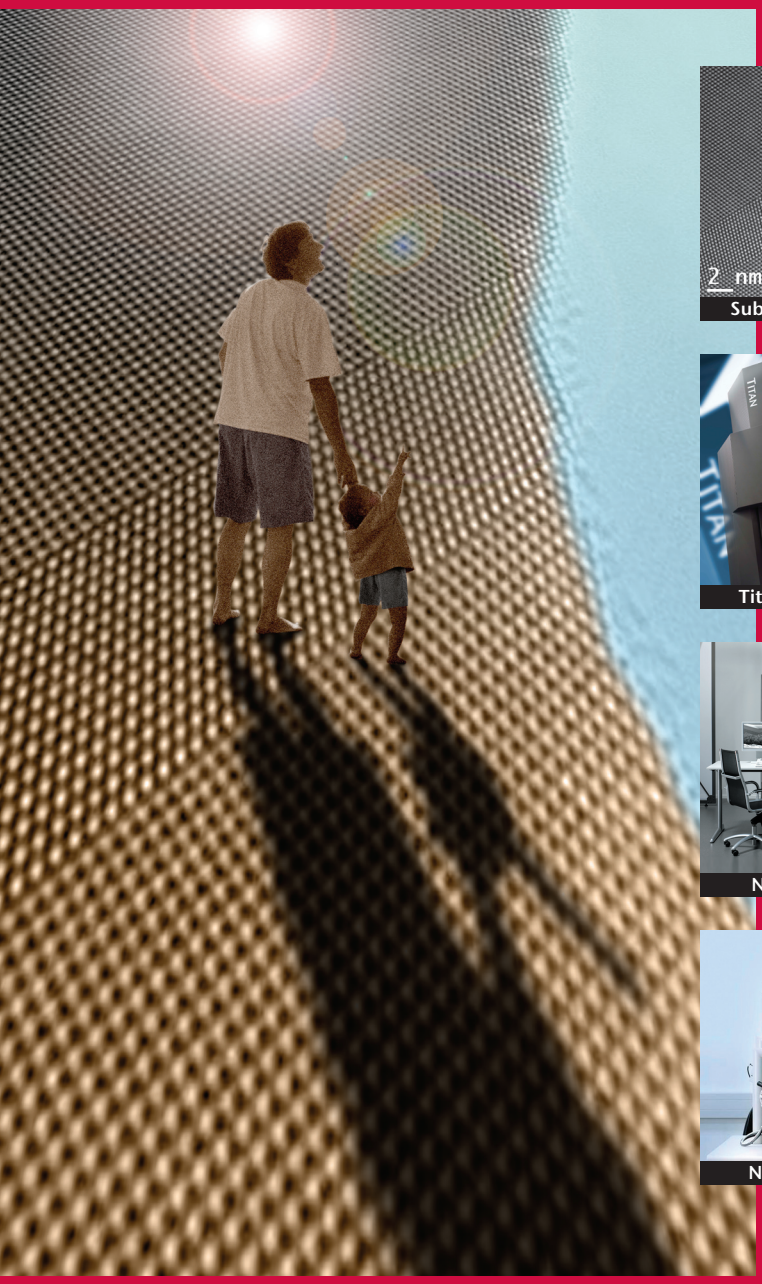

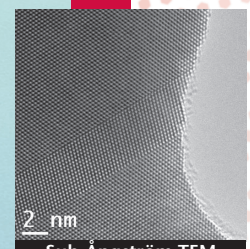

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Welcome to our "Refuge by the Sea!"

We hope that we have answered all of your questions in this brochure. If you think of anything we can do to make your stay more enjoyable, please call our Front Desk at extension 2232.

Guest Service Telephone extension 2232

Accessibility Needs
Please inform the front desk and security staff of any arrangements that need to be made for guests with special needs.

Activities
Outdoor year-round heated swimming pool, a sand volleyball court, ping-pong and billiard tables are available for guest use. Ranger and campfire programs can be planned in advance by calling the Park Ranger Office at (831) 372-4076. A lending library and board games are at the Front Desk. Coastal boardwalk and self-guided walking tours are also available.

Bike Rentals
Located at the Asilomar Park Store. Hours of operations are 9 am to 6 pm daily. All bike rentals include a helmet, a bike lock, and a bike trail map. All renters are required to go through a short safety orientation and are required to complete a rental agreement and liability release. Bikes are rented by the full or half day and are suspended on rainy days. For bike rental rates, please inquire at the Park Store.

Business Center
Located next to the front desk. Hours of operation are 6:30 am to 12 midnight daily. Charges are collected on the honor system. A list of charges are posted in the business center.
Features include:

1. four dedicated local access lines
2. one personal computer for word processing
3. speaker phone for conference calls

Photocopies and faxes are handled at the front desk.

Check-In Time: After 3:00 pm
Check-Out Time: By 12:00 noon
Guests will be charged 1/2 day rate for staying beyond 12:00 noon. After 4:00 pm, a full day's charge is made. Guests are responsible for unnecessary destruction, breakage or misuse of property.

Dry Cleaning
One day service is available if items are brought to the front desk by 8:30 am.

Facility Services Telephone extension 2232
Heat is regulated in the individual rooms by ventilators, radiators or thermostats. For any problem involving plumbing, electrical or heating, contact facility services at extension 2232.

Housekeeping Service Telephone extension 2276

Guest Amenities
Irons, ironing boards, hair dryers, and extra blankets and pillows can be delivered to guest rooms by our housekeeping staff. There are 5 ice machines on the grounds for your convenience (see map for locations). Ice buckets are in the guest rooms.

Jitney Telephone extension 2232
Asilomar's jitney is available for transporting guests anywhere on the grounds. Guests with disabilities will have priority.

Lost and Found Telephone extension 2276
Articles left in rooms will be held for call for 90 days. Before checking out, check your room to be sure you have not forgotten anything.

Mail and Package Service
Post your letters in the mail slot at the front desk. Outgoing mail is picked up at 7:00 am daily. Incoming mail should be addressed:

Your Name
c/o The Name of the Conference you are attending
Asilomar Conference Grounds
P.O. Box 537
Pacific Grove, CA 93950

Indicate estimated arrival date. All guest mail is held at the front desk for pickup. Due to limited space, Asilomar Conference Grounds cannot accept packages delivered prior to your conference. Please contact TRICORD Convention & Exhibit Services (831) 373-4347 or alternate delivery service to store and deliver your packages.

Messages and Faxes Telephone extension 2232
Incoming messages are received at the front desk. Telephone messages are delivered periodically to the guest's room. Fax services are available at the front desk for a nominal charge.

Meal Service
All meals are served semi-cafeteria style at Crocker Dining Hall. Your group will be seated together at designated tables.

Breakfast	7:30 am to 9:00 am
Lunch	12:00 noon to 1:00 pm
Dinner	6:00 pm to 7:00 pm

Neither cooking nor coffee making is permitted in the guest rooms or meeting rooms. Individual visitors are also welcome at Crocker Dining Hall. Meal tickets for individual meals may be purchased at the front desk.

Medical Service
Please contact the front desk for medical assistance by calling extension 2200 or dialing "0." No attempt is made to provide medical service or give advice or treatment. The Emergency Room of the Community Hospital of the Monterey Peninsula is located on Highway 68 east near Highway 1. Telephone is 624-5311. Asilomar is not responsible for personal injury to guests as a result of their carelessness.

Park Store Telephone extension 2906
The Park Store is located in the administration building (Phoebe A. Hearst Social Hall). Hours of operation are 6:30 am to 9:00 pm daily. Coffee and espresso drinks, bakery items, cold beverages, personal care items, phone cards, and gifts are available.

Telephone Service
Asilomar's telephone number is (831) 372-8016
To preserve the refuge atmosphere at Asilomar, our guest rooms are free from the distraction of televisions and telephones. An in-house telephone is located in each building for on-grounds calls only. In an emergency, dial "0." Use the nearest public telephone for local or long distance calls. Locations of public telephones are marked on the map. TDD machine may be obtained from the front desk for your use while at Asilomar.

Your Valuables
Safe deposit boxes are available at the front desk for your use. (Note: Under California law, the innkeeper assumes a maximum liability of $500.00 for any items under his safekeeping. Civil Code 1840). Please lock your windows and doors whenever you leave your room.

Park Information (831) 372-4076

Quiet Hours on Grounds
Please respect your neighbors' rights and maintain quiet between 10:00 pm and 6:00 am. (California Code of Regulations, Sec. 4320a.)

The Environment
Asilomar's 107 acres are dedicated to a natural ecological environment. Please walk on paved area only. The dunes are a particularly fragile environment and we request that you use the boardwalk to the beach. Trash receptacles are located throughout the grounds for litter. Asilomar encourages recycling whenever possible. Receptacles are available. Please do not litter in the park. Use cigarette receptacles for cigarette butts. No collecting of wood, animals, rocks, shells or sand is allowed.

Parking
Parking at Asilomar is provided for guests residing on grounds. Guests are required to park in designated areas. Disabled parking is available where indicated on the map (on the reverse side). Please note the one-way roads, speed limit of 15 mph and 10 minute parking zones. Roads must be kept clear at all times for emergency and service vehicles. Violators are subject to citation under California Vehicle Code and under State Park Rules and Regulation. No RV's are allowed on grounds.

Pets and Service Animals
State Park regulations do not permit pets overnight in any park building and suggests that no pet be left unattended in a closed vehicle overnight, hence, we must ask you to leave your pet at home.

HOUSE PHONE EMERGENCY NUMBER • DIAL 2200

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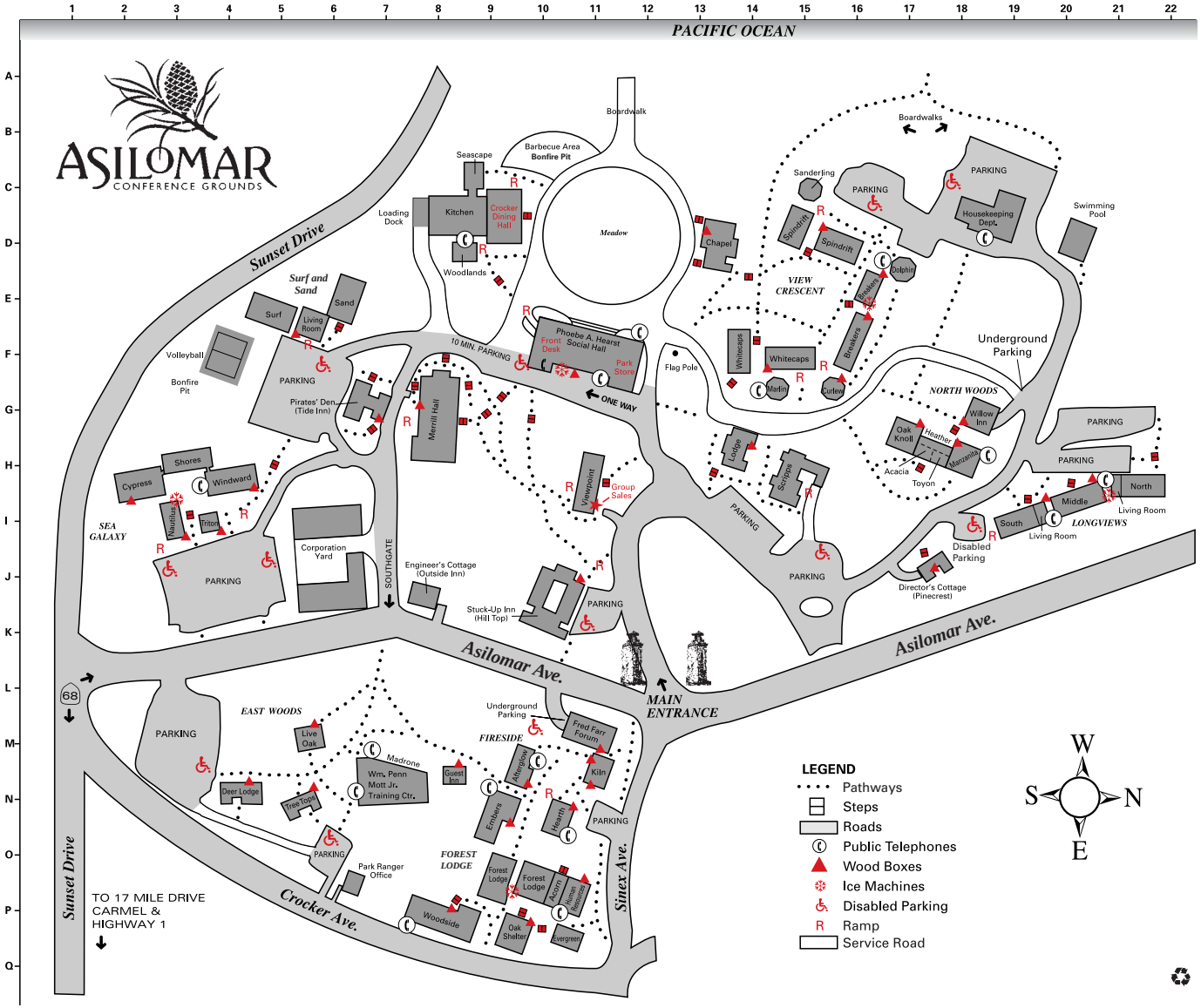

FACILITY	ROOM #	MEETING ROOMS	LOC.
Longviews (H-21)			
Longview North	101-110	North Living Room	H-22
Longview Middle	111-120		H-21
Longview South	121-130	South Living Room	I-19
North Woods (G-18)			
Willow Inn	1025-1036	Heather	G-19
Manzanita	1001-1012	Toyon	H-18
Oak Knoll	1013-1024	Acacia	H-17
View Crescent (E-15)			
Whitecaps South	801-808	Marlin	F-14
Whitecaps North	809-820		F-15
Breakers East	821-832	Curlew	F-16
Breakers West	833-840	Dolpin	E-16
Spindrift South	841-848	Sanderling	D-15
Spindrift North	849-856		D-16
Fireside (O-10)			
Afterglow	1301-1312	Fred Farr Forum	M-9
Hearth	1325-1336	Kiln	N-10
Embers	1313-1324		N-9
Guest Inn	901-903		M-8
Forest Lodge (M-10)			
Forest Lodge	1201-1211	Acorn	O-10
		Evergreen	P-11
Woodside	1212-1223	Oak Shelter	P-8
Historic Core			
Lodge	201-218		H-14
Scripps	301-323	Scripps Meeting Rm	H-15
Stuck-Up Inn (Hilltop)	401-414		K-10
Pirates' Den (Tide Inn)	501-510		G-6
Director's Cottage (Pinecrest)	1401-1403		J-18
Viewpoint		Viewpoint East	I-11
Group Sales Office			I-11
Merrill Hall			G-8
Chapel			D-14
Front Desk & Park Store / Phoebe A. Hearst Social Hall			F-10
Crocker Dining Hall		Crocker, Woodlands & Seascape	D-9
Engineer's Cottage (Outside Inn)			J-8
Fire Academy Offices			J-8
Sea Galaxy (G-4)			
Sand	605-610	Surf & Sand Room	E-6
Surf	601-604		E-4
Windward	701-708	Triton	H-4
Shores	709-716		H-3
Cypress	717-724	Nautilus	H-2
Eastwoods (M-4)			
Live Oak	1101-1110		M-5
Tree Tops	1111-1120		N-5
Deer Lodge	1121-1130		N-3
William Penn Mott Jr. Training Center			N-7
Madrone			M-7
Activity Locations			
Barbecue Area			C-10
Swimming Pool			D-21
Volleyball Court			F-4
Corporation Yard		Facilities	J-6
Housekeeping			D-19
Woodhaven – Park Ranger Office			O-7

Current Topics in Plutonium Science
Sunday, July 9, 1:00–4:30 pm
Asilomar Conference Center, Pacific Grove, California

Background

Plutonium Futures—The Science 2006 conference was established to increase awareness of the importance of the scientific underpinnings of plutonium research, and facilitate communication among its international practitioners. Most importantly, we hope that this conference will stimulate the next generation of scientists and students to study the fundamental properties of plutonium and other actinides. To help prepare students, non-specialists, and other interested parties, we have organized, in a special session preceding the conference, a half-day tutorial session, staffed by experts in plutonium science and technology, and based on current topics of this conference.

Syllabus

The tutorial session will cover three topical areas that should be educational to those new to plutonium and actinide science. At the same time, the contemporary nature of the topics will also be of interest to "old-timers" as well. While there is no fee for registering and attending the tutorial session we do need to know who is attending to provide adequate facilities. Please follow the instructions for registering for the tutorial when they are posted on this site.

1:00 pm — Frontiers in Metallic Plutonium

John L. Sarrao (LANL) and Adam J. Schwartz (LLNL)

Plutonium has long been recognized as a complex and scientifically rich metal. The challenge of Pu derives from the fact that its 5f electrons are neither fully localized nor fully itinerant. The resulting low energy scales lead to competing interactions and important entropic and lattice considerations as well. As a consequence, plutonium is on the verge of magnetic order and can be stabilized in a variety of crystal structures. The past several years have seen a renaissance in plutonium materials research. Despite significant progress and important breakthroughs, metallic plutonium remains a mystery at the frontier of materials research. We review basic physical phenomena and recent advances in our understanding of

plutonium with an emphasis on condensed matter physics and materials science.

Specific topics to be discussed include:

- Theoretical models and experimental validation of Pu's electronic and lattice properties
- Unconventional superconductivity in plutonium compounds
- Microstructure evolution and phase stabilization of plutonium

2:15 pm — Pu and the Environment
Annie Kersting (LLNL) and Mary Neu (LANL)

The responsible management of legacy nuclear materials, contaminated sites and future nuclear activities must include an understanding of the environmental behavior and impact of Pu. In this short tutorial we will discuss advances in our knowledge of plutonium aqueous bio/geo/chemistry, shifting paradigms in Pu transport, and current limitations in our ability to predict Pu mobility.

Specific topics to be discussed include:

- Oxidation states, solubility, surface adsorption
- Inorganic and organic complexes and colloids
- Microbial interactions
- Future research needs

3:30 pm — Science and Technology Needs to Monitor Plutonium for International Arms Control and Nonproliferation Agreements
Leslie J. Jardine (LLNL) and Mona Dreicer (LLNL)

Within the context of bilateral and international agreements/transparency initiatives, the means to monitor and inspect for the presence of plutonium while protecting national security equities has been a challenge. This first part of the tutorial will outline the existing agreements, and provide an overview of the types of measurements that have been employed.

A more detailed presentation of the Plutonium Disposition Agreement that was signed in 2000 between the U.S. and Russia, requires the disposition of 34 MT of excess weapons plutonium, in each country. This Agreement requires implementation of a monitoring and inspections regime (M&I).

The types of M&I activities and the measurement constraints that will need to be employed at the various facilities and for various forms of plutonium will be discussed within the framework of plutonium science challenges.

Specific topics to be discussed include:

- Chemical and physical forms of plutonium requiring M&I methods
- Types of M&I instrumentation for measuring plutonium
- Future research needs

4:45 pm — Tutorial Sessions End

PLENARY TALKS

Monday 8:40 AM Plenary	Location: Merrill Hall	Chair: **David Hobart**
7/10/06 8:40 AM Mon AM Plenary	*"Frontiers in actinide metal physics: the role of partially localized 5f electrons"*, **Sarrao, J. L.**	Plenary
7/10/06 9:10 AM Mon AM Plenary	*"Plutonium Encaged: Pu(IV) and Model Ce(IV) Maltol Complexes"*, **Shuh, D. K.**, G. Szigethy, J. Xu, K. N. Raymond	Plenary
Monday 1:00 PM Plenary	Location: Merrill Hall	Chair: **Gordon Jarvinen**
7/10/06 1:00 PM Mon PM Plenary	*"Plutonium Metallurgy: The materials science challenges bridging condensed-matter physics and chemistry"*, **Schwartz, A. J.**	Plenary
7/10/06 1:30 PM Mon PM Plenary	*"Scientific Understanding Aids Plutonium Remediation at Rocky Flats."*, **Clark, David L.**, G. R. Choppin, D. L. Clark, D. R. Janecky, L. J. Lane	Plenary
Tuesday 8:00 AM Plenary	Location: Merrill Hall	Chair: **Gerry Lander**
7/11/06 8:00 AM Tue AM Plenary	*"PuCoGa5 and Related Materials"*, **Thompson, J. D.**, N. J. Curro, Tuson Park, E.D. Bauer, J. L. Sarrao	Plenary
7/11/06 8:30 AM Tue AM Plenary	*"Futuristic back-end of the nuclear fuel cycle with the partitioning of minor actinides"*, **Madic, C.**, B. Boullis, P. Baron, F. Testard, M. J. Hudson, J.-O. Liljenzin, B. Christiansen, M. Ferrando, A. Facchini, A. Geist8, G. Modolo, A. G. Espartero and J. De Mendoza	Plenary
Tuesday 1:00 PM Plenary	Location: Merrill Hall	Chair: **Jean Fuger**
7/11/06 1:00 PM Tue PM Plenary	*"Thermostatics and Kinetics of Transformations in Pu-based Alloys"*, **Turchi, P.**, L. Kaufman, and Zi-Kui Liu	Plenary

7/11/06 1:30 PM Tue PM Plenary	*"Zirconia inert matrix for plutonium utilisation and minor actinides disposition in reactors"*, **Degueldre, Claude**	Plenary
Wednesday 8:00 AM Plenary	Location: Merrill Hall	Chair: **Akio Nakamura**
7/12/06 8:00 AM Wed AM Plenary	*"The theory of electronic structure and magnetic properties of Pu ans Pu alloys"*, **Anisimov, V.I.**	Plenary
7/12/06 8:30 AM Wed AM Plenary	*"Solubility and Redox Equilibria of Plutonium"*, **Fanghänel, Th.**, M. Altmaier, H.R. Cho, C.M. Marquardt, V. Neck, A. Seibert, C. Walther, J.-I. Yun	Plenary
Wednesday 1:00 PM Plenary	Location: Merrill Hall	Chair: **Darleane Hoffmann**
7/12/06 1:00 PM Wed PM Plenary	*"Nuclear forensics investigations with a focus on plutonium"*, **Lützenkirchen, K.**, M. Wallenius, K. Lützenkirchen, K. Mayer, I. Ray	Plenary
7/12/06 1:30 PM Wed PM Plenary	*"How the f electrons hide"*, **Smith, J.L.**, J. Lashley, M. E. Manley, C. P. Opeil, et al.	Plenary
Wednesday 8:30 PM Futures Lectures	Location: Crocker Dining Hall	Chair: **Michael Fluss**
7/12/06 8:30 PM Futures Lecture	*"Plutonium Science Futures"*, **Gerry Lander**.	Lecture
7/12/06 9:00 PM Futures Lecture	*"Plutonium World Futures"*, **Siegfried Hecker**	Lecture
Thursday 8:00 AM Plenary	Location: Merrill Hall	Chair: **Claude Guet**
7/13/06 8:00 AM Thu AM Plenary	*"Insights into the bonding and electronic nature of heavy element materials"*, **Haire, R. G.**	Plenary
7/13/06 8:30 AM Thu AM Plenary	*"Density changes of delta - plutonium with alloying elements and with aging."*, **Wolfer, W. G.**	Plenary

MONDAY (AM) INVITED TALKS

Monday 10:10 AM **Coordination/Organometallic Chemistry**	Location: Merrill Hall	Co-chairs: **David Shuh** **Pat Allen**
7/10/06 10:10 AM Coord & OrgMtl Chem	*"Theoretical Studies of the Structure and Bonding of Actinide Complexes"*, **Bursten, B. E.**, J. Li, T. Yang, J. L. Sonnenberg, and M. Mrozik	Oral
7/10/06 10:35 AM Coord & OrgMtl Chem	*"Fun at the Bottom of the Periodic Table: Novel Reactivity Patterns in Actinide Molecular Systems"*, **Kiplinger, J. L.**,	Oral
7/10/06 11:00 AM Coord & OrgMtl Chem	*"Covalency in the f-element–chalcogen bond. Computational studies of [M(N(EPR2)2)3] (M = Pu, U, Ce, La; E = O, S, Se, Te; R = H, Me)"*, **Kaltsoyannis, N.**, A. J. Gaunt, M. P. Neu, K. I. M. Ingram	Oral
7/10/06 11:25 AM Coord & OrgMtl Chem	*"Soft X-ray Emission and Absorption Spectroscopy for Curium-Nitrogen Donor Ligand Complex System"*, **Yaita. T.**, D.K. Shuh	Oral

Monday 10:10 AM **Solid-State**	Location: Fred Farr	Co-chairs: **John Sarrao** **Alex Mirmelstein**
7/10/06 10:10 AM Solid State	*"Muon Spin Relaxation (+muonSR) Studies of α-Pu, δ-Pu and PuCoGa5"*, **Heffner, R. H.**, G. D. Morris, M. J. Fluss, E. D. Bauer, B. Chung, W. Higemoto, T. U. Ito , D. E. MacLaughlin, S. McCall, K. Ohishi, J. L. Sarrao and L. Shu	Oral
7/10/06 10:35 AM Solid State	*"Americium under pressure"*, **Griveau, J.C.**, J. Rebizant, R.G. Haire, G. Kotliar, G.H. Lander.	Oral
7/10/06 11:00 AM Solid State	*"Many-body Electronic Structure of Americium Metal"*, **Savrasov, S.**, K. Haule, G. Kotliar	Oral
7/10/06 11:25 AM Solid State	*"Conditions for Magnetism in Pu systems"*, **Havela, L.**, P. Javorsky, F. Wastin, E. Colineau, T. Gouder, A.B. Shick, V. Drchal	Oral

MONDAY (PM) INVITED TALKS

Monday 2:20 PM **Environmental Chemistry**	Location: Merrill Hall	Co-chairs: **Annie Kersting** **David Clark**
7/10/06 2:20 PM Env Chem	*"Subsurface Bio-mediated Reduction of Higher-Valent Uranium and Plutonium"*, **Reed, D. T.** , G. Smith, R. Deo, B. Rittmann, J. F. Lucchini, M. Borkowski, M. K. Richmann	Oral
7/10/06 2:45 PM Env Chem	*"Disproportionation of Pu(IV) or a two step mechanism? Redox behavior of Pu(IV) in acidic solutions"*, **Walther, C.**, H.R. Cho, C.M. Marquardt, V. Neck, A. Seibert, J.I. Yun and Th. Fanghänel	Oral
7/10/06 3:10 PM Env Chem	*"Plutonium Speciation in Environmental Systems, From Hydrolysis to Aerobic and Anaerobic Biogeochemistry"* **Neu, M.P.** S. D. Reilly, W. Runde, S. A. Stout, and H. Boukhalfa	Oral
7/10/06 4:00 PM Env Chem	*"U(VI) Silicate Solid Phases as Sinks for Sequestration of Non-U f-element Cations in the Environment"*, **Clark, Sue**,	Oral
7/10/06 4:25 PM Env Chem	*"Radionuclide Distribution in Debris from Underground Nuclear Tests Detonated in Silicate and Carbonate Rocks"*, Zavarin, M., P. Zhao, Q. Hu, T. P. Rose, and **A. B. Kersting**	Oral
7/10/06 4:50 PM Env Chem	*"Microbial Transformations of Plutonium"*, **Francis, A. J.**, C.J. Dodge and J.B. Gillow	Oral
7/10/06 5:15 PM Env Chem	*"Actinide Sorption by Well-Characterized Colloid Particles. Redox Speciation and Surface Complexation Modelling."*, **Kalmykov, S. N.**, A.P. Novikov, A.B. Khasanova, Yu.A.Teterin, B.F. Myasoedov, S.B. Clark	Oral

Monday 2:20 PM **Materials Science**	Location: Fred Farr	Co-chairs: **Keri Blobaum** **Ted Massalski**
7/10/06 2:20 PM Mat'l Sci	*"Cancellation of spin and orbital magnetic moments in δ-Pu: theory"*, **Soderlind, Per**,	Oral

7/10/06 2:45 PM Mat'l Sci	*"Mechanical Behavior of Delta-Phase Plutonium-Gallium Alloys"*, **Kaschner, G. C.**, Michael G. Stout, Siegfried S. Hecker	Oral
7/10/06 3:10 PM Mat'l Sci	*"The phase diagram Pu-Ga in the Pu-rich region"*, **Massalski, T.**, A. Schwartz	Oral
7/10/06 4:00 PM Mat'l Sci	*"Evidence for Formation of Alpha Embryos in δ Pu-2.0 at% Ga Alloy at Ambient Temperature"*, **Blobaum, K.**, C.R. Krenn, M.A. Wall, T.B. Massalski, and A.J. Schwartz	Oral
7/10/06 4:25 PM Mat'l Sci	*"Calculated Properties of Pu-Ga Alloys Using the Modified Embedded Atom Method"*, **Baskes, M. I.**, S. Y. Hu, S. M. Valone, and M. A. Stan	Oral
7/10/06 4:50 PM Mat'l Sci	*"Basic science on advanced plutonium fuels : new investigations on structure, thermophysical properties and radiation damage"*, **Beauvy, M.**, P. Martin, S. Vaudez, L. Paret, V. Basini, J. P. Ottaviani, J. Lechelle, C. Dalmasso	Oral
7/10/06 5:15 PM Mat'l Sci	*"Setups of Experimental Explosions to Study Fundamental Dynamic Properties of 4f- and 5f-metals and their Alloys"*, **Kozlov, E.A.**, V.I.Tarzhanov, V.G.Vil'danov, V.M.Elkin, S.A. Brichikov, I.V. Telichko, D.G. Pankratov, ?.?.Borschevsky, D.T. Yusupov	Oral

TUESDAY (AM) INVITED TALKS

Tuesday 9:05 AM **Fuel Cycle: Separations & Reprocessing**	Location: Merrill Hall	Co-chairs: **Charles Madic** **Michel Beauvy**
7/11/06 9:05 AM Fuel Cycle AM	*"Actinyl Chemistry at the Centre for Radiochemistry Research"*, **May, I.**, R. Copping, S.M. Cornet, M.P. Redmond, C.A. Sharrad, C.E. Talbot-Eeckelears, C.J. Jones, M.J. Sarsfield and R.J. Taylor	Oral
7/11/06 9:30 AM Fuel Cycle AM	*"Thermodynamic Features of Lanthanide and Actinide Solvent Extraction Reactions"*, **Nash, Ken**,	Oral

7/11/06 9:55 AM Fuel Cycle AM	*"Synthesis of new mixed actinides oxalates as precursors of actinides oxide solid solutions"*, **Arab-Chapelet, B.**, S. Grandjean, G. Nowogrocki and F. Abraham	Oral
7/11/06 10:45 AM Fuel Cycle AM	*"Methods of Separations of Transuranium Elements Based on the Complex – Formation Ligands: Extraction and Sorption"*, **B. F. Myasoedov**, Yu.M. Kulyako, I.G. Tananaev, V.V. Yakshin, A.Yu. Tsivadze	Oral
7/11/06 11:10 AM Fuel Cycle AM	*"Plutonium and Other Actinides Behaviour in NEXT Process"*, **Sano, Y.** , S. Miura, M. Nakahara, M. Kamiya, K. Nomura, J. Komaki	Oral
7/11/06 11:35 AM Fuel Cycle AM	*"Electrochemical studies on Plutonium in molten salts"*, **Bourgès, G.**, S. Rochefort, D. Lambertin, H. Chollet, S. Delpech, G. Picard	Oral

Tuesday 9:05 AM Solid-State II: **Pu 115**	Location: Fred Farr	Co-chairs: **Joe Thompson** **Roberto Caciuffo**
7/11/06 9:05 AM Pu 115	*"Systematics in PuTGa5 Compounds"*, **Wastin, F.**, E. Colineau, F. Jutier and J. Rebizant	Oral
7/11/06 9:30 AM Pu 115	*"Probing the Coulomb interaction of the unconventional superconductor PuCoGa5 by phonon spectroscopy"*, **Raymond, S.**, P. Piekarz, J.P. Sanchez, J. Serrano, M. Krisch, B. Janou?ová◊, J. Rebizant◊, N. Metoki?, K. Kaneko?, P.T. Jochym, A.M. Ole?,? and K. Parlinski.	Oral
7/11/06 9:55 AM Pu 115	*"Electronic Structure Investigations of Pu-Compounds: PuFeGa5, PuNiGa5, PuFe0.5Co0.5Ga5, PuNi0.5Co0.5Ga5 and PuIn3"*, **Oppeneer, P. M.**, S. Lebègue, O. Eriksson	Oral
7/11/06 10:45 AM Pu 115	*"Fermi Surface, Magnetism, and Superconducting Properties of Pu-compounds"*, **Haga, Y**, D. Aoki, H. Yamagami, T. D. Matsuda, K. Nakajima, Y. Arai, E. Yamamoto, A. Nakamura, Y. Homma, Y. Shiokawa and Y. Onuki	Oral

7/11/06 11:10 AM Pu 115	*"What Does PuCoGa5 Teach Us About Pu?"*, **Bauer, Eric D.**, J. D. Thompson, N. J. Curro, T. Durakiewicz, J. J. Joyce, J. L. Sarrao, L. A. Morales, J. M. Wills, C. H. Booth, F. Wastin, J. Rebizant, J. C. Griveau, P. Javorsky, P. Boulet, E. Colineau, G. H. Lander	Oral
7/11/06 11:35 AM Pu 115	*"Local Structure, Superconductivity and Radiation Damage in PuCoGa5 and Related Materials"*, **Booth, C. H.**, M. Daniel, R. E. Wilson, P. G. Allen, E. D. Bauer, L. Morales, J. L. Sarrao	Oral

TUESDAY (PM) INVITED TALKS

Tuesday 2:10 PM **Fuel Cycle: Advanced Fuels and Waste Forms**	Location: Merrill Hall	Co-chairs: **Rod Ewing** **Claude DeGueldre**
7/11/06 2:10 PM Fuel Cycle PM	*"XAS study of U1xPuxO2 solid solutions"*, Martin, P., G. Carlot, M. Ripert, S. Grandjean, **C. Valot**, P. Blanc, C. Henning	Oral
7/11/06 2:35 PM Fuel Cycle PM	*"Models and Simulations of Nuclear Fuel Materials Properties"*, **Stan, M.**, J. C. Ramirez, P. Cristea, B. P. Uberuaga, S. Srivilliputhur, C. Deo, S. Y. Hu, S. P. Rudin, J. M. Wills.	Oral
7/11/06 3:00 PM Fuel Cycle PM	*"Development of Fuel Material with Porous Zirconium Carbide Inert Diluent for Plutonium and Minor Actinides Recycling in Fast Reactors"*, **Glagovsky, G.M**, V.K. Orlov, E.M. Glagovsky, G.M. Blukher, A.P. Ivanov, I.A. Shlepov	Oral
7/11/06 3:50 PM Fuel Cycle PM	*"Ion beam irradiation of actinide-doped pyrochlores"*, **Ewing, R. C.**, J. Lian, L. M. Wang, S. V. Yudintsev, S. V. Stefanovsky	Oral
7/11/06 4:15 PM Fuel Cycle PM	*"High Temperature Reactivity of Mixed Uranium and Plutonium Carbide Fuels with Silicon Carbide as an Inert Matrix. Efficiency of Refractory Metals as Interdiffusion Barriers."*, **Lechelle, Jacques** , E. Belval-Haltier, R. Belin	Oral
7/11/06 4:40 PM Fuel Cycle PM	*"Weapons-Grade MOX Fuel Burnup Characteristics in Advanced Test Reactor Irradiation"*, **Chang, Gray S.**,	Oral

7/11/06 5:05 PM Fuel Cycle PM	*"Inductive Cold Crucible Melting of Actinide-Doped Murataite-Based Ceramics"*, **Stefanovsky, S.V.**, Ptashkin, A.G., Knyazev, O.A., Dmitriev, S.A. Yudintsev+, S.V., Nikonov, B.S.	Oral

Tuesday 2:10 PM **Phase Changes, Phonons, & Entropy**	Location: Fred Farr	Co-chairs: **Al Migliori** **Natalie Baclet**

7/11/06 2:10 PM PuPPE	*"Phase Transformations in Pu-Al and Pu- Ga Alloys. Effects of Pressure and Temperature on the Kinetics of the Delta-Phase Decomposition"*, **Timofeeva, L.F.**,	Oral
7/11/06 2:35 PM PuPPE	*"Lattice Vibrations in alpha-Uranium: Non-Linearity and Localization"*, **Manley, M. E.**, M. E. Manley,, M. Yethiraj, H. Sinn, H. M. Volz, A. Alatas, J. C. Lashley, W. L., Hults, G. H. Lander, J. L. Smith	Oral
7/11/06 3:00 PM PuPPE	*"Temperature and time dependence of the elastic moduli of Pu and Pu-Ga alloys"*, **Migliori, Albert**,	Oral
7/11/06 3:50 PM PuPPE	*" "The unique high-pressure behavior of curium probed further using alloys""*, S. Heathman, **R. G. Haire** T. LeBihan, R. Ahuja, S. Li, W. Luo, and B. Johansson	Oral
7/11/06 4:15 PM PuPPE	*"Correlations, Magnetism, and Structure Across the Actinide Series:a Dynamical Mean Field Theory (DMFT) Perspective."*, **Kotliar, G.**, K. Haule G. Kotliar S. Savarsov and A. Toropova	Oral
7/11/06 4:40 PM PuPPE	*"Plutonium and Quantum Criticality"*, **Chapline, G.**, M. Fluss	Oral
7/11/06 5:05 PM PuPPE	*"Instability Of Actinide Electron Structure Under High Pressure"*, **Nadykto, B.A.**,	Oral

WEDNESDAY (AM) INVITED TALKS

Wednesday 9:05 AM **Solution and Gas Phase Chemistry**	Location: Merrill Hall	Co-chairs: **Wolfgang Runde** **Thomas Fanghänel**
7/12/06 9:05 AM Sol'tn & Gas Phase	*"Chemical Exploits with Actinide Ions in the Gas Phase: Insights into Actinyl Hydration, 5f Bonding, and More",* **Gibson, J. K.**, R. G. Haire, M. Santos, J. Marçalo, A. Pires de Matos	Oral
7/12/06 9:30 AM Sol'tn & Gas Phase	*"Neptunyl V disproportionation and cation-cation interactions in organic solutions",* **Sarsfield, M. J.**, R.J. Taylor, C.J. Maher, and R.B. Jarvis.	Oral
7/12/06 9:55 AM Sol'tn & Gas Phase	*"Investigation of Actinide Molecules by Coupling X-ray Absorption Spectroscopy and Quantum Chemistry",* **Fillaux, C.**, C. Den Auwer, D. Guillaumont, D. K. Shuh and T. Tyliszczak, J. C. Berthet	Oral
7/12/06 10:30 AM Sol'tn & Gas Phase	*"Tandem Mass Spectrometry and Wavelength-resolved Infrared Multiphoton Dissociation Studies of Gas-phase Uranyl Complexes",* **Van Stipdonk1. M.**, Winnie Chien, Gary Groenewold, Anita Gianotto, Garold Gresham, Anita Gianotto, Jos Oomens, Nick Polfer, David Moore, Wibe de Jong, Lucas Visscher	Oral
7/12/06 10:55 AM Sol'tn & Gas Phase	*"Atomistic Level Relativistic Quantum Modelling of Plutonium Hydriding",* **Balasubramanian, K.**, Thomas E. Felter, Tom Anklam, Thomas W. Trelenberg, and William McLean II	Oral
7/12/06 11:20 AM Sol'tn & Gas Phase	*"Formation of Volatile Oxygen-Bearing Compounds by U, Np, Pu and Am",* **Domanov, V. P.**,	Oral
7/12/06 11:45 AM Sol'tn & Gas Phase	*"Structures and Bonding in K U S6 and KU2Se6",* **Ibers, J. A.**, H. Mizoguchi, D. L. Gray, F. Q. Huang,	Oral

Wednesday 9:05 AM **Electronic Structure and Physical Properties**	Location: Fred Farr	Co-chairs: **Tom Zocco** **Jim Tobin**
7/12/06 9:05 AM Elec Struc	*"Electron Spectroscopy Study of Pu and Pu Compounds"*, **Gouder, T.** ,	Oral
7/12/06 9:30 AM Elec Struc	*"Competition Between Delocalization and Spin-Orbit Splitting in the Actinide 5f States"*, **Tobin, James, G.**,	Oral
7/12/06 9:55 AM Elec Struc	*"Microscopic theory of magnetism and superconductivity of Pu and PuMGa5 on the basis of a j-j coupling scheme"*, **Hotta, Takashi** ,	Oral
7/12/06 10:30 AM Elec Struc	*"On the Absence of Magnetic Order in Plutonium"*, **Lashley, J.C.**, A. C. Lawson, R. McQueeney€, and G. H. Lander	Oral
7/12/06 10:55 AM Elec Struc	*"Self-Damage and Magnetic Susceptibility in Pu and Pu alloys as a Probe of the 5f electrons"* **McCall, S**,, M.J. Fluss, B.W. Chung, G.F. Chapline, M.W. McElfresh, R.G. Haire, D.J. Jackson	Oral
7/12/06 11:20 AM Elec Struc	*"Influence of interstitial impurity and vacancy on?-Pu magnetic state: ab-initio unvestigation"*, **Korotin, M.A.**, A.O. Shorikov, V.I. Anisimov, V.V. Dryomov, Ph.A. Sapozhnikov	Oral
7/12/06 11:45 AM Elec Struc	*"The effect of exact calculation of exchange interaction upon calculated electronic structure of actinides"*, **Kutepov, A. L.**	Oral

WEDNESDAY (PM) INVITED TALKS

Wednesday 2:10 PM **Pu and Actinide Analytical Methods**	Location: Merrill Hall	Chair: **Karl Lützenkirchen**
7/12/06 2:10 PM Analytical	*"Actinyl Chemistry across the U, Np and Pu series"*, **Cornet, S. M.**, I. May, M.J. Sarsfield, N. Kaltsoyannis, J. Haller	Oral

7/12/06 2:35 PM Analytical	*"Alpha spectrometry with high energy resolution cryogenic detectors"*, **Leblanc, E.**, N. Coron, J. Leblanc, P. de Marcillac, J. Bouchard, M. Loidl	Oral
7/12/06 3:00 PM Analytical	*"PLUTONIUM SPECIATION BY ELECTROSPRAY MASS SPECTROMETRY"*, **Amekraz, B.**, C. Moulin	Oral

Wednesday 2:10 PM **Surface Science & Corrosion**	Location: Fred Farr	Co-chairs: **Wigbert Siekhaus** **Noah Shamir**

7/12/06 2:10 PM Surface Sci & Corrosion	*"Heat treatment effects on the surface chemisorption behavior of strained uranium: the H2O/U reaction"*, **Shamir, N.**, E. Tiferet M. H. Mintz, , S. Zalkind, I. Jacob	Oral
7/12/06 2:35 PM Surface Sci & Corrosion	*"A photoemission study of the oxidation of the light actinides"*, **Roussel, P.**, P. Nevitt, P. Roussel, T. Gouder, F. Huber and A. Carley	Oral
7/12/06 3:00 PM Surface Sci & Corrosion	*"A First-Principles Electronic Structure Study of the High-Symmetry Surfaces of FCC Americium"*, **Ray, A. K.**, D. Gao	Oral

THURSDAY (AM) INVITED TALKS

Thursday 9:05 AM **Actinide Compounds and Complexes**	Location: Merrill Hall	Co-chairs: **Dick Haire** **Ken Nash**

7/13/06 9:05 AM Actinide Cmpds & Cmplxs	*"Oxygen Exchange and Diffusion in Uranium Dioxide Single Crystals "*, **Joyce, SA**, ,JA Stultz, MT Paffett	Oral
7/13/06 9:30 AM Actinide Cmpds & Cmplxs	*"Molecular Magnetism in Some Neptunyl (+1, +2) Complexes"*, **Nakamura, A.**, M. Nakada, T. Nakamoto, T. Kitazawa and M. Takeda	Oral
7/13/06 9:55 AM Actinide Cmpds & Cmplxs	*"Nanostructured Actinide Compounds"*, **Krivolvchev, S,V,**, P.C. Burns, I.G. Tananaev, B.F. Myasoedov	Oral
7/13/06 10:20 AM Actinide Cmpds & Cmplxs	*"Hydrous PuO2+x(s): Solubility and Thermodynamic Data"*, **Neck, V.**, M. Altmaier, C.M. Marquardt, A. Seibert, J.I. Yun, Th. Fanghänel	Oral

7/13/06 10:45 AM Actinide Cmpds & Cmplxs	*"A Look Toward the Future of Solid-State Transuranium Chemistry"*, **Albrecht-Schmitt, T.E.**,	Oral

Thursday 9:05 AM **Radiation Effects, Defects, Impurities, and Property Changes**	Location: Fred Farr	Co-chairs: **David Geeson** **Wilhelm Wolfer**

7/13/06 9:05 AM Rad'n Effcts	*"Self-irradiation effects in plutonium alloys"*, **Baclet, N.**, B. Oudot, R. Grynszpan, L. Jolly, B. Ravat, L. Berlu, G. Jomard#	Oral
7/13/06 9:30 AM Rad'n Effcts	*"First principles determination of the vacancy formation energy in delta-plutonium"*, **Robert, G.**, A. Pasturel, B. Siberchicot	Oral
7/13/06 9:55 AM Rad'n Effcts	*"Monte Carlo + Molecular Dynamics simulation of radiation damage evolution in Pu"*, **Dremov, V. V.** , P.A. Sapozhnikov, S.I. Samarin, D.G. Modestov, N.E. Chizhkova	Oral
7/13/06 10:20 AM Rad'n Effcts	*"Collective Effects in PuGa Alloys and Their Effects on Structure, Phase Stability, and Radiation Damage Mechanisms"*, **Conradson, Steven, D.**	Oral
7/13/06 10:45 AM Rad'n Effcts	*"The Actinides – a beautiful ending of the Periodic Table"*, **Johansson, Borje**	Oral

Booth	*"Announcing Publication of the Third Edition of The Chemistry of the Actinide and Transactinide Elements",* **Hobart, Dave**,	Booth
Booth	*"Actinides Research Capabilities at the Lujan Neutron Scattering Center at LANSCE. ",* **Hurd, A. J.**	Booth
7/10/06 8:00 PM Coord & OrgMtl Chem	*"Plutonium and other f-Element Complexes With 'soft' Donor Ligands",* **Gaunt, A.**, Sean D. Reilly, Alejandro E. Enriquez, Brian L. Scott, Mary P. Neu	Poster 1
7/10/06 8:00 PM Coord & OrgMtl Chem	*"Structural Studies of Pu(VII) Under Extreme Alkaline Solution Conditions",* **Clark, David L.**, S. D. Conradson, P. L. Gordon, D. W. Keogh, C. D. Tait	Poster 2
7/10/06 8:00 PM Coord & OrgMtl Chem	*"Quantum Mechanical studies of the Cation Cation interaction.",* **Steele, H. M.**, R.J. Taylor and M Sarsfield.	Poster 3
7/10/06 8:00 PM Coord & OrgMtl Chem	*"Heteropolyanion Ligand Sensitised Uranyl Luminescence",* **Talbot-Eeckelaers, C.**, Simon Pope and Iain May	Poster 4
7/10/06 8:00 PM Coord & OrgMtl Chem	*"Uranium complexes with newly designed tetraketones for active materials of redox flow battery",* **Shirasaki, K.**, T. Yamamura, S. Ohta, Y. Shiokawa	Poster 5
7/10/06 8:00 PM Coord & OrgMtl Chem	*"Studies of Gluconate Complexation with U(VI) and Np(V) In Acidic to Neutral Solutions",* **Zhang, Z.**, S. B. Clark,a G. Tian,b L. Raob	Poster 6
7/10/06 8:00 PM Env Chem	*"ENVIRONMENTAL CONSIDERATIONS IN THE WEST SINAI AND ROSSETTA BEACH ON THE MEDITERRANEAN",* **Mohamed, ASHRAF EL SAYED** ,	Poster 7
7/10/06 8:00 PM Env Chem	*"Plutonium Uptake by Brucite and Periclase",* **Farr, J. D.**, M. P. Neu, Roland K. Schulze and B. D. Honeyman	Poster 8
7/10/06 8:00 PM Env Chem	*"Actinide Interactions with Iron Oxide/Oxyhydroxide",* **Stout, S. A.** , E. Bauer, S.D. Reilly, P. Lichtner, J. D. Farr, and M. P. Neu	Poster 9

7/10/06 8:00 PM Env Chem	*"Speciation of Plutonium in Aqueous Systems",* **Banik, N. L.**, R. A. Buda, S. Bürger, J. V. Kratz, N. Trautmann	Poster 10
7/10/06 8:00 PM Env Chem	*"Speciation of actinides in contaminated groundwaters from Russian nuclear waste repository sites",* **Novikov, A.**, S. Kalmykov, B. Myasoedov, W. Halsey	Poster 11
7/10/06 8:00 PM Env Chem	*"Neptunium Sorption onto Hematite and Goethite in Presence of Different Humic Acids",* **Khasanova, A. B.**, St.N. Kalmykov, I.V. Perminova, S.B. Clark	Poster 12
7/10/06 8:00 PM Env Chem	*"Pu(V) and Np(V) Reduction by Hydroquinone Enriched Humic Derivatives",* **Shcherbina, N.S.**, St.N. Kalmykov, I.V. Perminova, A.N. Kovalenko	Poster 13
7/10/06 8:00 PM Env Chem	*"U – Pu Coprecipitation Experiments in granitic-bentonitic groundwater under oxidizing and anoxic conditions.",* **Quiñones, J.**, E. Iglesias, S. Perez de Andres, A. Martínez Esparza	Poster 14
7/10/06 8:00 PM Env Chem	*"MEASUREMENT OF ENVIRONMENTAL LEVELS OF PLUTONIUM IN SOIL",* **Thomas M.A.**, Thompson P., Thomas M.A., and Thomas N.	Poster 15
7/10/06 8:00 PM Env Chem	*"Synthesis and Use of Humic Derivatives Covalently Bound to Silica Gel for Np(V) Sequestration",* **Perminova, I. V.**, L.A. Karpiouk, N.S. Shcherbina, S.A. Ponomarenko§, St.N. Kalmykov, and K. Hatfield	Poster 16
7/10/06 8:00 PM Env Chem	*"Combined Procedure for the Determination of Actinides in Environmental and Radioactive Waste Samples",* **Lee, M. H.**, K. K. Park, J. Y. Kim, Y. J. Park, W. H. Kim	Poster 17
7/10/06 8:00 PM Env Chem	*"Kinetics of redox reactions of Pu(V) in solutions containing different fractions of humic substances",* **Blinova, O. A.**, A.P. Novikov, I.V. Perminova+, R.G. Haire	Poster 18
7/10/06 8:00 PM Env Chem	*"Partitioning of Pu between organic matter fractions in the contaminated soils and bottom sediments",* **Blinova, O. A.**, T.A. Goryachenkova, A.P. Novikov, S. Clark	Poster 19

7/10/06 8:00 PM Env Chem	*"Pu(VI) Speciation In Environmentally Relevant Solutions",* **Reilly, S. D.**, W. Runde, M. P. Neu	Poster 20
7/10/06 8:00 PM Env Chem	*"Neptunium Dioxide Precipitation Kinetics in Aqueous Solutions",* **Johnsen, A. M.**, K.E. Roberts, S.G. Prussin	Poster 21
7/10/06 8:00 PM Env Chem	*"Interactions of Heavy Elements with Microorganisms",* **Ohnuki, T.** , T. Yoshida, T. Ozaki, F. Sakamoto, N. Kozai, T. Nankawa, Y. Suzuki, A. J. Francis	Poster 22
7/10/06 8:00 PM Env Chem	*"Selective extraction of Pu by a calix [6]arene bearing hydroxamic groups. Application to bioassays",* **Boulet, B.**, C. Bouvier-Capely, G. Cote, L. Poriel & C. Cossonnet	Poster 23
7/10/06 8:00 PM Env Chem	*"Plutonium Interactions with Aerobic Microorganisms and Microbial Chelators",* **Boukhalfa, H.**, Sean, D. Reilly, and Mary. P. Neu	Poster 24
7/10/06 8:00 PM Env Chem	***OPEN***	Poster 25
7/10/06 8:00 PM Env Chem	*"The Surface Properties of UO2 Related to Disposal of SNF and Possible Application of Depleted Uranium",* **Kalmykov, S. N.**, O.N. Batuk, V.P. Petrov, E.V. Zakharova, Yu.A. Teterin, B.F. Myasoedov, V.I. Shapovalov, T.V. Kazakovskaya	Poster 26
7/10/06 8:00 PM Env Chem	*"Actinide Analysis and Leaching of Samples Collected from the Glovebox Excavator Method Project",* **Bauer, W. F.** , G. S. Groenewold, R. V. Fox, B. J. Mincher, A. K. Gianotto	Poster 27
7/10/06 8:00 PM Env Chem	*"Uranium (VI) Solubility from Over-saturation in Carbonate-free Brines",* **Lucchini, J-F.**, Marian Borkowski, Michael K. Richmann, Donald T. Reed	Poster 28
7/10/06 8:00 PM Env Chem	*"Aerosol Monitoring During Works inside the Object "Shelter": Analysis of Dispersity and Concentration for Different Work Types",* **Aryasov, P.**, S. Nechaev, N. Tsygankov	Poster 29

7/10/06 8:00 PM Env Chem	*"XANES IDENTIFICATION OF PLUTONIUM SPECIATION IN RFETS SAMPLES",* **LoPresti, V.**, S. D. Conradson, D. L. Clark	Poster 30
7/10/06 8:00 PM Env Chem	*"REDOX REACTIONS OF PLUTONIUM WITH HYDROQUINONE AND HUMIC SUBSTANCES",* **Marquardt, C.M.**, A. Seibert, Th. Fanghänel	Poster 31
7/10/06 8:00 PM Env Chem	*"Neodymium Analog Study of An(III) Solubility in WIPP Brine",* **Borkowski, M.**, J-F. Lucchini, M. K. Richmann and D. T. Reed	Poster 32
7/10/06 8:00 PM Env Chem	*"The effect of extracellular polymeric substances (EPS) on adsorption of Pu(IV) and (V) on silica particles",* **Roberts K.**, P.H. Santschi , K.A. Schwehr , C.C. Hung	Poster 33
7/10/06 8:00 PM Env Chem	*"The Effects of Extracellular Polymeric Substances (EPS) on Plutonium Sorption Behavior",* **Tinnacher, R.M.**, B. D. Honeyman, J. B. Gillow,	Poster 34
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