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TRACK	SUN JUN 24 AM	SUN JUN 24 PM	MON JUN 25 AM	MON JUN 25 PM	TUE JUN 26 AM	TUE JUN 26 PM	WED JUN 27 AM	WED JUN 27 PM	Organizer(s)	Email address	Symposium description
Analytical Chemistry Track									**Nathalie Wall**	**nawall@wsu.edu**	
Advances in Mass Spectrometry and Spectroscopy									Peter Reilly	pete.reilly@wsu.edu	
Gas-phase ion separation approaches									Brian Clowers	brian.clowers@wsu.edu	
Forensic Chemistry and Toxicology									Sonya Peterson	Sonja.Peterson@wsp.wa.gov	
Chemical Tools and Instrumentation									Nathalie Wall	nawall@wsu.edu	
Bioeconomy Track									**Karthi Ramasamy**	**karthi@pnnl.gov**	
Chemistry of Biofuels and Bioenergy									Daniel Howe Asanga Padmaperuma	daniel.howe@pnnl.gov asanga.padmaperuma@pnnl.gov	
Chemistry Education and Outreach Track									**Kraig Wheeler Kerry Breno**	**kraigwheeler@whitworth.edu kbreno@whitworth.edu**	
Chemical Education: Honoring the Legacy of Jane & Glenn Crosby									Janet Bryant John Michael Sophos	janetsbliss@hotmail.com jsophos611@comcast.net	This symposium is intended to honor the legacy of a lifetime spent in Chemical Education and dedicated service to the ACS through stories and reminiscences from a cross section of those whose lives Jane and Glenn Crosby touched in a myriad of ways
Best-Practices in Undergraduate Chemical Research - Outcomes and Pedagogy									Kerry Breno Kraig Wheeler	kbreno@whitworth.edu kraigwheeler@whitworth.edu	This half-day session will bring together leading faculty with expertise in the unique opportunities and challenges of engaging undergraduate students in chemistry research. Presentations in this symposium will provide models for approaching research with undergraduates in various fields of Chemistry. Each presenter will also be expected to discuss the practical aspects of running an undergraduate-based research program, with topics ranging from approaches to student training, project management, building infrastructure, integrating research into coursework, and strategies for PI mentoring and professional development.
Celebrating 50 years of Project SEED: Opening doors to careers in chemistry									Angela Hoffman	hoffman@up.edu	
Instructional Strategies that Promote Student Learning									Carole Berg	cberg@bellevuecollege.edu	
Transformative Partnerships for Academics									Gian Surbella	robert.surbella@pnnl.gov	
General Papers									Kerry Breno Kraig Wheeler	kbreno@whitworth.edu kraigwheeler@whitworth.edu	General Call for oral presentations in the area of chemistry education
Chemical Safety									**John Egbert**	**jonathan.egbert@pnnl.gov**	
General Papers									John Egbert	jonathan.egbert@pnnl.gov	General Call for oral presentations in the area of chemical safety
Safety--It is part of the scientific process									Frankie Wood-Black	fwoodblack90@gmail.com	Safety has to be a part of the entire scientific process, from problem selection, experimental design, scale up and ultimate application. This session will explore the various ways safety needs to be considered within the chemical enterprise.
Environmental and Green Chemistry Track									**Nancy Washton**	**nancy.washton@pnnl.gov**	
Environmental Chemistry – mineral organic interfaces in the environment									Nancy Hess	nancy.hess@pnnl.gov	Understanding chemical reactions at environmental interfaces at the molecular level is essential for the development of predictive models of fate and transport of nutrients and contaminants in the environment. This session is focused on experimental and computational approaches that probe biological and chemical processes governing elemental speciation, reaction rates and transport at and across mineral and soil interfaces.

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Biotechnology – synthetic biology and/or biofuel and bioproduct production									Scott Baker Erin Bredeweg Rob Egbert	scott.baker@pnnl.gov erin.bredeweg@pnnl.gov robert.egbert@pnnl.gov	An exploration of synthetic biology as an approach to develop sustainable biochemical processes and address chemical, regulatory and biological questions. Topics include new engineered functions, host engineering to boost bioproduction, genetic tools to accelerate synthetic biology discovery, and engineering efforts for bio-based process development, as well as understanding innate biological processes. - Synthetic gene networks utilizing novel chemistries or molecular regulation - Applied computational protein design - Non-traditional host engineering and genetic tools - Mixed feedstock and waste bioprocessing - Bioprospecting for new pathways and products - Predictive modeling of engineered biological functions - Cell-free expression systems
Atmospheric Chemistry									Nancy Washton	nancy.washton@pnnl.gov	
Materials and Fluids for Fossil and Geothermal Energy Applications									Carlos Fernandez Manh-Thuong Nguyen Kenton Rod	carlos.fernandez@pnnl.gov manhthuong.nguyen@pnnl.gov kenton.rod@pnnl.gov	This session is dedicated to subsurface technologies for recovery of oil, gas and geothermal energy. Presentation topics include, but are not limited to, concepts and tools for field exploration and imaging; materials and fluid technologies associated to deployment, including drilling, fracturing (water-less and low water fluids, proppants); materials and fluids for wellbore completion (including novel casing alloys, coatings and self-repairing cementitious materials); physicochemical interactions between chemicals/fluids and rock, casing and cement materials; and subsurface imaging and sensing technologies.
Food and Wine Chemistry Track									**Tom Collins**	**tom.collins@wsu.edu**	
General papers									Tom Collins	tom.collins@wsu.edu	General Call for oral presentations in the area of wine chemistry
Lens of the WINE Business: Stories from the Front - Commercializing in the Wine Industry from Research to Market									Janet Bryant	janetsbliss@hotmail.com	Invited panelists who have successfully had an impact on the region's wine industry
General Poster Session									**Ram Devanathan Vanda Glezakou**	**ram.devanathan@pnnl.gov vanda.glezakou@pnnl.gov**	
General Posters									Ram Devanathan Vanda Glezakou	ram.devanathan@pnnl.gov vanda.glezakou@pnnl.gov	General call for posters by professional chemists
Geochemistry									**Sarah Saslow Megan Nims**	**sarah.saslow@pnnl.gov megan.nims@pnnl.gov**	
Geochemical transformations for environmental remediation									Eric Bylaska Eugene Ilton	Eric.bylaska@pnnl.gov eugene.ilton@pnnl.gov	Geochemical processes such as mineral dissolution and growth, oxidation/reduction, incorporation of toxic metals, transformation of metal silicates to metal carbonates, and geomicrobiological mineral transformations evolve through the transfer of atoms and electrons across mineral/fluid interfaces. The interpretation of these processes is challenging due to the high chemical complexity and structural heterogeneity of natural and engineered materials, including the interface region, as well as by the wide range of temperature and pressure conditions under which they occur. Unraveling the nature of these processes in terms of key molecular-level reactions under realistic conditions is a grand challenge in geochemistry. This symposium seeks to bring together researchers who are using experimental and computational methods to study the interplay between structure, reactivity, charge transfer, and dynamics for environmentally relevant materials. Of particular interest are studies using advanced light sources (XAS,NMR,CTR,...) that make use of molecular modeling to interpret and guide experiments.
General Papers									Sarah Saslow Megan Nims	sarah.saslow@pnnl.gov megan.nims@pnnl.gov	General Call for oral presentations in the area of geochemistry
High School Teachers Program Track									**Frannie Smith**	**frances.smith@pnnl.gov**	
General papers									Frannie Smith	frances.smith@pnnl.gov	General Call for oral presentations in the area of Pre-College Science Education
Innovation Track									**Judy Giordan**	**judy@jgiordan.com**	

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Innovation Fair in Exhibition									Janet Bryant	janetsbliss@hotmail.com	Innovation Fair participants selected for a booth in the Exhibition are invited to submit a technical poster on their technology
The Lens of Support: Support for the Value Chain of Translating Research to Market Solutions									Judy Giordan	judy@jgiordan.com	Support along the Value Chain from Idea to R&D to Pilot to Commercial. WHAT is available and WHERE to find it and HOW is success measured for National labs, Companies, Universities. Showing process and WHAT has been developed/created/measured.
"Golden Age" of Chemistry									Matthew Grandbois	grandboismatthew@gmail.com	Heard a lot about the wonderful world of how Chemistry has changed the world through great inventions and innovations?
Lens of Business: Stories from the Front - Commercializing Market Required STEM Innovations and Solutions									Judy Giordan	judy@jgiordan.com	HOW did YOU successfully negotiate moving ahead along the Value Chain from Idea to R&D to Pilot to Commercial? WHAT did you do and HOW did you do it?
Lens of the WINE Business: Stories from the Front - Commercializing in the Wine Industry from Research to Market									Janet Bryant	janetsbliss@hotmail.com	Invited panelists who have successfully had an impact on the region's wine industry
Inorganic and Materials Chemistry Track									**Bob Weber**	**robert.weber@pnnl.gov**	
Chemistry of Nanomaterials									Marvin Warner	marvin.warner@pnnl.gov	
Materials Synthesis across Scales									David Gotthold Jim DeYoreo	david.gotthold@pnnl.gov james.deyoreo@pnnl.gov	
Low temperature Chemical Transformations									Mal-Soon Lee Sneha Akhade	malsoon.lee@pnnl.gov sneha.akhade@pnnl.gov	Catalysis can play a crucial role in sustainable production of fuels and chemicals generated from alternative/diversified energy sources. This session solicits contributions in the area of low temperature chemical transformations via thermal catalysis, electrocatalysis and photocatalysis. Experimental and modeling papers focused on the fundamental understanding of the catalytic phenomena, catalyst screening investigations and relevant reaction engineering design are sought.
In Situ and Operando Techniques for Electrochemical Systems									Venky Prabhakaran Grant Johnson	venky@pnnl.gov grant.johnson@pnnl.gov	Molecular-level understanding of kinetics at the electrochemical interfacial is essential to rational design of efficient and sustainable energy technologies. In this context, this session will focus on the in-situ and operando techniques that can provide direct visualization of processes at the electrochemical interfaces. This session welcomes submissions on but are not limited to all types of in-situ electroanalytical, spectroscopy, spectrometry and microscopy techniques to characterize the electrochemical interfaces.
Molecular Catalysis for Energy Conversions									Wendy Shaw Aaron Appel Bojana Ginovska	Wendy.Shaw@pnnl.gov aaron.appel@pnnl.gov bojana.ginovska@pnnl.gov	Chemical Conversions are essential for many natural and industrial processes. Enzymes can provide both critical mechanistic understanding of natural systems and inspiration for the design of synthetic molecular catalysts. This session will focus on both experimental and computational studies of molecular and enzyme catalysts, including their synthesis, reactivity, and mechanisms.
Organic Chemistry Track									**Satish Nune**	**satish.nune@pnnl.gov**	
Cope Scholar Symposium, Tunable Organic Materials: Solvents to Therapeutics									Satish Nune Phillip Koech	satish.nune@pnnl.gov phillip.koech@pnnl.gov	
Synthetic Methodology Development and its Advanced Application in Organic Chemistry									Deepika Malhotra Phillip Koech	deepika.malhotra@pnnl.gov phillip.koech@pnnl.gov	
Physical and Computational Chemistry Track									**Sotiris Xantheas**	**sotiris.xantheas@pnnl.gov**	
Advances in Computational Chemistry									Kirk Peterson	kipeters@wsu.edu	The focus of this symposium encompasses all of computational chemistry, from simulations to electronic structure calculations, with an emphasis on both the development of new methods and techniques as well as their application to challenging chemical systems and reactive pathways

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Condensed Phase and Interfacial Chemistry									Liem Dang	liem.dang@pnnl.gov	The session will focus on recent advances of experiments and theory to obtain the molecular-level understanding of steady-state and dynamics properties of liquid interfaces. Of particular interest will be recent progress of nonlinear spectroscopy and theoretical models, which provide substantial new insights into molecules at liquid interfaces. With this symposium, we aim to bring together experimentalists and theoreticians to engage in discussion of their work on liquid interfaces. Junior faculty and post-docs are particularly encouraged to participate.
Electrolytes and Ionic Liquids									Sotiris Xantheas	sotiris.xantheas@pnnl.gov	
NWChem Tutorial									Edo Apra	edoardo.apra@pnnl.gov	This tutorial will introduce researchers in the field of computational chemistry to the NWChem software package. NWChem aims to provide its users with computational chemistry tools that can handle (bio)molecules, nanostructures, and solid-state compounds.
Radiochemistry and Nuclear Chemistry Track									**Sam Bryan**	**sam.bryan@pnnl.gov**	
Chemistry and Collaboration to Advance Nuclear Technologies									Aurora Clark	auclark@wsu.edu	This session will focus broadly on the underlying chemistry occurring in nuclear systems. It will highlight partnerships between multiple institutes, and will feature collaborations on chemical problems of nuclear interest within the recently formed joint nuclear institute between WSU and PNNL. Contributions from other collaborations and partnerships are also encouraged.
Radiation Effects at Complex Interfaces									Brienne Seiner	brienne.seiner@pnnl.gov	We are interested in research that explores the chemical and physical driving forces controlling solid phase formation, agglomeration, and phase transitions under radiation-rich environments or within radiation-rich samples.
Chemistry of Nuclear Processing									Gregg Lumetta Jack Law	gregg.lumetta@pnnl.gov jack.law@inl.gov	This symposium is open to papers addressing the chemistry of all aspects of nuclear processing, from uranium and thorium mining to recycling of used nuclear fuel. Papers are sought in the following example topic areas: recycling of uranium and plutonium, separating minor actinides, conversion of actinides to oxides or metal, radiation effects on processing of nuclear materials, and the chemistry of nuclear waste forms.
Materials with increased capacity for nuclear remediation									Joseph Ryan Benjamin Parruzot	joe.ryan@pnnl.gov benjamin.parruzot@pnnl.gov	Interfacial chemistry is key to understanding and controlling chemistry in nuclear applications. Examples include predicting and modifying the rheology of nuclear waste, the fabrication of nuclear fuels (particularly metallic), the interfacial chemistry within molten salt reactors, establishing the proper release rates for radiotherapy seeds, controlling the melt rate of vitrified nuclear waste, and evaluating the aqueous durability of all nuclear waste forms prior to disposal. This symposium will focus on these and other problems in nuclear science that relate particularly to the interfaces between solid and liquid phases
Recent Developments in Radiochemistry and Radioanalytical Chemistry									Matt O'Hara	matthew.ohara@pnnl.gov	This is an invited and open call for oral presentations. Topics will cover pure and applied chemistry of the radioactive elements, applications in the analysis of radioactive isotopes, and radiochemical isolation methods.
Analytical method adaptations to accommodate radioactive samples									Dan Herting	dlherting@gmail.com	SW-846 analytical methods are often not amenable to application to radioactive samples due to sample size availability, holding time requirements, personnel radiation dose issues, and radiation containment issues. Analytical chemists at Hanford and other sites that routinely deal with radioactive samples have devised a number of ways to adapt standard methods for use in radiation zones. This symposium will explore some of the success stories of these adaptations.
Hanford: History, chemistry and modern solutions									Amanda Lines Cal Delegard	amanda.lines@pnnl.gov calvin.delegard@pnnl.gov	This session will cover historical accounts of the chemistry conducted at Hanford and how these relate to current topics on the Hanford site.
Undergraduate Program Track									**Colby Heideman**	**cheideman@eou.edu**	
General Papers									Colby Heideman	cheideman@eou.edu	General call for oral presentations by Undergraduate students and their advisors
Undergraduate Posters									Colby Heideman	cheideman@eou.edu	General call for posters by Undergraduate students and their advisors