

The 42nd POMS

7 - 9 November 2014 McMaster University

Day	Event	Time	Location
Friday evening	Mixer and Registration	7:00 - 10:00 pm	The Phoenix, in the Refectory Building, (Building #4)
Saturday am	Registration	8:15 - 9:00 am	HSC, Ewart Angus Foyer (Building # 37, use the NW entrance)
	Welcome	9:00 - 9:10 am	HSC-1A6
	Talks - session 1	9:10 - 10:30 am	
	Coffee break	10:30 - 11:00 am	HSC, Ewart Angus Foyer
	Talks - session 2	11:00 - 12:10 pm	
	Lunch	12:00 - 1:30 pm	ABB-273 (A.N. Bourns Science Building - Building #25, use the south entrance)
Saturday pm	Talks - session 3	1:30 - 2:50 pm	HSC-1A6
	Coffee break	2:50 - 3:20 pm	HSC, Ewart Angus Foyer
	Talks - session 4	3:20 - 4:20 pm	
	Poster session	4:30 - 6:20 pm	University Club (Building #8)
Banquet	Cocktails (Cash Bar)	6:30 - 7:00 pm	University Club
	Dinner	7:00 pm	University Club
Sunday am	Talks - session 5	9:00 - 10:20 am	HSC-1A6
	Coffee break	10:20 - 10:50 am	HSC, Ewart Angus Foyer
	Talks - session 6	10:50 - 11:50 pm	
	Closing Remarks	11:50 am	

Scientific Program

Saturday Morning

8:15 **Registration** (HSC Ewart Angus Foyer)

9:00 **Opening Remarks** (HSC -1A6)

Session 1 (HSC-1A6)

Chair: Nick Werstiuk

9:10 Emma C. Nicholls-Allison, Erica Hong, Graeme Nawn, and **Robin G. Hicks**

New chromophores derived from, and inspired by, indigo: new tricks for very old dogs

9:30 **Ian Duffy**, and William Leigh

Photochemical generation and characterization of di-tert-butylsilylene in solution

9:50 **Ryan R. Maar**, Ian Duffy, and William J. Leigh

Transient germynes from photocheletropic cycloreversion of 3,4-dimethyl-1-phenylgermacyclopent 3 ene

10:10 **Anabel E. Lanterna**, and J. C. Scaiano

Heterogeneous photocatalytic C-C coupling: plasmon-mediated reductive dimerization of 4-nitrobenzyl bromide by supported gold nanoparticles

10:30 **Coffee Break** (HSC Ewart Angus Foyer)

Session 2 (HSC-1A6)

Chair: Richard Manderville

11:00 **Sara Ghiassian**, Ali Nazemi, Pierangelo Gobbo, Lihai Yu, Elizabeth R. Gillies, Leonard G. Luyt, and Mark S. Workentin

Rapid and efficient gold nanoparticle modification via interfacial strain-promoted alkyne-nitrone cycloaddition (I-SPANC) reaction

11:20 **Wilson Luo**, Pierangelo Gobbo, Sung Ju Cho, Xiaoxiao Wang, Mark C. Biesinger, Robert E. Hudson, and Mark S. Workentin

Small gold nanoparticles for interfacial Staudinger-Bertozzi ligation: from synthesis to bioconjugation

11:40 **Matthew Thompson**, Carolyn Carkner, Nadia Kapernaum, and Robert P. Lemieux

Tuning the mesogenic properties of smectic liquid crystals: the effect of fluoro-substituted phenoxy end-groups

12:00 **Lunch** (Rm 273, A.N. Bourns Science Building)

Saturday afternoon

Session 3 (HSC-1A6)

Chair: John Pezacki

- 1:30 **Thomas Z. Cservenyi**, Aaron Witham, and Richard A. Manderville
Modified nucleobase aptamers as DNA-protein conjugating agents
- 1:50 **Simanga Gama**, and Paul J. Berti
KDO8P oxime-based inhibition of KDO8P synthase - an antimicrobial target
- 2:10 **Maren Heimhalt**, and Paul J. Berti
Increased inhibition of DAHP synthase by DAHP oxime at high pH guides inhibitor design
- 2:30 **Graeme Howe**, and Ronald Kluger
Why adding water to a carboxyl group can promote decarboxylation
- 2:50 **Coffee Break** (HSC Ewart Angus Foyer)

Session 4 (HSC-1A6)

Chair: Heidi Muchall

- 3:20 **Archie C. Reyes**, and John P. Richard
Kinetic isotope effects on the glycerol-3-phosphate dehydrogenase-catalyzed reduction of glycolaldehyde: activation by oxydianions
- 3:40 **Serena Singh**, and Ronald Kluger
A doubly cross-linked hemoglobin bis-tetramer as a blood substitute
- 4:00 **Aizhou Wang**, and Ronald Kluger
Subunit directed acetylation and phase-directed CuAAC in the formation of hemoglobin bis-tetramers
- 4:20 **Adrian L. Schwan**, Mohanad Shkoor, Jason Davy, Suneel Singh, Zhengdong Wang, and Robert Notter
Lipase resistant phosphonolipids for exogenous lung surfactant therapy
- 4:30-6:30 **Poster session** (University Club)
- 6:30 **Banquet** (University Club)

Sunday morning

Session 5 (HSC-1A6)

Chair: **Robin Hicks**

- 9:00 **Philippe Archambault**, and Heidi M. Muchall
Examination of various complexes in the enantioselective reduction of t-butyl methyl ketone
- 9:20 **Lee Belding**, and Travis Dudding
The synthesis and theoretical investigation of bis(dialkylamino)cyclopropenimine proton sponge derivatives
- 9:40 **Spencer P. Pitre**, Christopher D. McTiernan, Hoseein Ismaili, and J. C. Scaiano
Methylene Blue photocatalysis: a metal-free alternative to radical trifluoromethylation
- 10:00 **J. Peter Guthrie**, and Igor Povar
Equilibrium constants for imine formation by computation alone
- 10:20 **Coffee Break** (HSC Ewart Angus Foyer)

Session 6 (HSC-1A6)

Chair: **Adrian Schwan**

- 10:50 Paul M. Siena, Tak Koyanagi, and **Richard W. Nagorski**
N-(hydroxybenzyl)benzamide: pH-dependent aqueous & Zn²⁺ catalytic rate studies
- 11:10 **John P. Pezacki**
Using physical organic chemistry as a guide for how to best label living bacteria
- 11:30 **Closing Remarks**

Poster Program

Poster	Presenter's Name	Title
1	Ali, F. I.	<i>Solid state intramolecular condensation of leucyl-alanine and alanyl-leucine</i>
2	Blanchard, D. J. M.	<i>Modified 2'-deoxyguanosine fluorescent probes expressing dual fluorescent properties, incorporated into thrombin binding aptamer for detection of duplex-quadruplex exchange</i>
3	Browne, C.	<i>Reactions of silylenes and carbonyl compounds</i>
4	Halloran, M. W.	<i>Synthesis and self-assembly of hexa-substituted dibenzopentacenequinones</i>
5	Hodgson, G. K.	<i>Investigating the mode of catalysis exhibited by samarium oxide nanoparticles at the single particle level using fluorescence microscopy</i>
6	Howe, A.	<i>Synthesis of contorted hexabenzotriphenylenes</i>
7	McTiernan, C. T.	<i>Heterogeneous light-mediated reductive dehalogenations and cyclizations utilizing platinum nanoparticles on titania (Ptnp@TiO₂)</i>
8	Mahmood, F.	<i>Rapid, switchable self-trapping of laser light in a spiropyran-functionalized hydrogel</i>
9	Mirabdolbaghi, R.	<i>A class of phase-transfer catalyst with interionic strain: insight into the bonding of disubstituted N- vs carbene-stabilized N¹-centered cations</i>
10	Morim, D. R.	<i>Dynamics of optical self-trapping in polymeric matrices containing tris(2,2'-bipyridine)ruthenium(II)</i>
11	Mulholland, M. E.	<i>tuning the electronic and mechanical properties of azomethine-spaced materials for application into electrochromic devices</i>
12	Crites, C.-O.L.	<i>The role of surface oxygen species in the peroxidation of cumene and ethylbenzene</i>
13	Son, M.	<i>Direct detection and characterization of transient dimesitylsilanethione</i>
14	Taimoory, S. M.	<i>Mirroring enzymes: The role of hydrogen bonding in an asymmetric organocatalyzed aza-Henry reaction, a DFT study</i>
15	Tremblay, M.-H.	<i>Automers for the direct formation of polyazomethines on electrodes – versatile electroactive layers</i>