

- 2:30 57. Neutron transfer measurements around ^{132}Sn . **S. D. Pain**, K. L. Jones, R. L. Kozub, D. W. Bardayan, J. C. Blackmon, K. A. Chippis, K. Y. Chae, J. A. Cizewski, R. Hatarik, R. Kapler, F. Liang, C. Matei, B. H. Moazen, C. D. Nesaraja, D. Shapira, J. F. Shriner Jr., M. S. Smith
- 3:00 Intermission.
- 3:15 58. Examining nuclear vibrations with fast neutrons. **S. W. Yates**
- 3:45 59. Structure studies of nuclei produced in spontaneous fission of ^{252}Cf . **A. V. Ramayya**, J. H. Hamilton

THURSDAY MORNING

Section A

Salt Palace Convention Center
251 D

Nuclear Forensics Cosponsored by I&EC[†]

G. A. Fugate and J. I. Friese, *Organizers*

- 9:00 Introductory Remarks.
- 9:05 60. Superconducting ultrahigh energy resolution gamma-spectrometers for nuclear forensics. **S. Friedrich**
- 9:35 61. Sensors and monitors for trace detection of radionuclides in environmental waters. **J. W. Grate**, M. J. O'Hara, S. R. Burge
- 10:05 62. Evaluating extraction chromatography methods for rapid actinide separations. **J. M. Gostic**, R. C. Gostic, R. Sudowe, K. Czerwinski
- 10:35 Intermission.
- 10:55 63. Closed-vessel microwave digestion method for the complete dissolution of environmental samples for determination of actinides by mass spectrometry. **M. J. O'Hara**, T. C. Maiti, D. L. Bellofatto, M. Douglas, S. L. Petersen, J. W. Grate
- 11:25 64. Population of hot particles: What gamma spectroscopy of individual particles and a population can tell us about a source term. **R. C. Gostic**, J. M. Gostic, C.-A. C. Bias, K. Czerwinski
- 11:55 65. Half-life and gamma abundance ratio measurements of ^{153}Sm . **J. I. Friese**, R. F. Payne, L. R. Greenwood, C. Z. Soderquist, S. J. Garofoli
- 12:25 Concluding Remarks.

THURSDAY AFTERNOON

Section A

Salt Palace Convention Center
251 D

Nuclear Forensics Cosponsored by I&EC[†]

G. A. Fugate and J. I. Friese, *Organizers*

- 1:30 Introductory Remarks.
- 1:35 66. The development of nuclear forensics: A personal view. **S. Niemeyer**
- 2:25 67. Nuclear signature collections from the CETE demonstration. **P. R. Nuessele**, E. Walker, D. Radford, A. Souders, C. W. Alexander, D. B. Hunter, J. R. Cadieux, P. Bowman, S. Walter, J. DeGange, K. Huffman, M. Parker, T. Brown, P. Cable-Dunlap, R. Brunson, J. Ladd-Lively
- 2:55 68. Determination of curium in various matrices. **H. Kurosaki**, S. B. Clark
- 3:25 69. Production of a Cs-Ba chromatometric reference material for nuclear forensic measurements. **R. Essex**, S. A. Goldberg
- 3:55 Intermission.
- 4:15 70. Synthesis of core-shell quantum-dot nanoparticles for radiodetection. **J.-Y. Jeong**, A. Paulenova

Please refrain from using cellular telephones and cameras during technical sessions.

- 4:40 71. Nuclear archeology in a bottle: Evidence of pre-Trinity U.S. weapons activities from a waste burial site. **J. M. Schwantes**, M. Douglas, S. Bonde, J. Briggs, O. T. Farmer III, L. R. Greenwood, E. Lepel, C. Orton, J. Wacker, A. Luksic
- 5:10 Concluding Remarks.

ORGN

Division of Organic Chemistry

S. M. Sieburth and
A. F. Abdel-Magid, *Program Chairs*

OTHER SYMPOSIA OF INTEREST:

ACS Award in Industrial Chemistry: Symposium in Honor of George G. I. Moore (see BMGT, Mon)

Claude S. Hudson Award in Carbohydrate Chemistry: Symposium in Honor of Peter H. Seiberger (see CARB, Sun)

Carl S. Marvel Creative Polymer Chemistry Award in Honor of Geoffrey Coates (see POLY, Sun)

Smismman Award Symposium (see MEDI, Mon)

SOCIAL EVENTS:
Social Hour: Sun, Wed

SUNDAY MORNING

Section A

Salt Palace Convention Center
Combo Ballrooms B/D/F

ACS Award for Creative Work in Synthetic Organic Chemistry: Symposium in Honor of Hisashi Yamamoto

B. B. Snider, *Organizer*

- 8:30 Introductory Remarks.
- 8:35 1. Chiral hydrogen bond donors as enantioselective catalysts. **V. H. Rawal**
- 9:20 2. Pd-Catalyzed C-H activation reactions: Diastereoselectivity to enantioselectivity. **J.-Q. Yu**
- 10:05 3. New methods for the preparation of enantiomerically pure all-carbon quaternary stereocenters. **I. Marek**
- 10:50 Introduction of Awardee.
- 11:00 4. Awardee Address (ACS Award for Creative Work in Synthetic Organic Chemistry, sponsored by Aldrich Chemical Company, Inc). Catalytic asymmetric synthesis based on acid catalysis. **H. Yamamoto**

Section B

Salt Palace Convention Center
Ballrooms G&I

Francis P. Garvan-John M. Olin Medal: Symposium in Honor of Kathryn A. Parker Cosponsored by WCC

D. M. Huryn, *Organizer*

- 8:30 Introductory Remarks.
- 8:35 5. Romping with cyclobutenes: From fertilization to antibacterials. **N. S. Sampson**
- 9:10 6. Strategies and tactics inspired by seven-membered rings in natural products. **R. Sarpong**
- 9:45 7. Surface organic chemistry, and how it might affect you someday. **J. Schwartz**

† Cooperative Cosponsorship

- 10:20 8. Modular synthesis for function. **K. B. Sharpless**
- 10:55 Introduction of Garvin-Olin Awardee.
- 11:05 9. Awardee Address (Francis P. Garvan-John M. Olin Medal, sponsored by the Francis P. Garvan-John M. Olin Medal Endowment). Key steps. **K. A. Parker**

Section C

Salt Palace Convention Center
155 A

Biologically-Related Molecules and Processes

R. Holman, *Presiding*

- 8:20 10. Chemical incorporation of tellurium functions into nucleic acids and a novel synthesis of d4Ns via Te-assisted elimination reaction. **J. Sheng**, A. E. A. Hassan, Z. Huang
- 8:40 11. Design and synthesis of novel retinoids: Use of a phenyl group as a polyene chain spacer. **T. Evans**, S. Mahalingam, J. Anguiano, K. Hema, A. Verma, **B. C. Das**
- 9:00 12. Detection of biologically important catechols using alkylcatecholboronates formed in situ in a reaction with profluorescent nitroxides. **R. Braslau**, F. Rivera III, M. Cottman, E. Lillie
- 9:20 13. Development of γ -substituted PNA as versatile scaffolds for multivalent display. **E. A. Englund**, D. H. Appella
- 9:40 14. Development of nucleic acid binding ligands: A unified approach to treating myotonic dystrophy. **C. L. Heinecke**, C. Melander
- 10:00 15. Discovery of photochromic ligands that block voltage-gated potassium channels at the internal TEA binding site. **M. R. Banghart**, A. Mourou, D. L. Fortin, Z. Yao, R. H. Kramer, D. Trauner
- 10:20 16. Efficient solid-phase synthesis of FK228 analogs. **J.-M. Ahn**
- 10:40 17. Inhibition of microRNA miR-21 by small molecules. **D. D. Young**, K. Gumireddy, Q. Huang, A. Deiters
- 11:00 18. Withdrawn.
- 11:20 19. Synthesis of two stereoisomeric deoxyribonucleoside adducts of mitomycin C. **E. Champell**, M. Paz Jr., M. Tomasz
- 11:40 20. Molecular diversity of macrolides from *Phorbas* sp.: New chemical entities at the nanomole-scale. **T. F. Molinski**, D. S. Dalisay, B. I. Morinaka

Section D

Salt Palace Convention Center
155 D

Material, Devices and Switches

A. J. McNeil, *Presiding*

- 9:00 21. Tuning electronic properties of 1-acyloxypropidine-2-thiones (Barton esters) for materials applications. **A. Jankowiak**, A. Januszko, **P. Kaszynski**
- 9:20 22. Controlled liposome destruction through the use of quinone triggers. **N. Hollabaugh**, M. F. Mendoza, R. L. McCarty
- 9:40 23. Design and synthesis of proposed chemosensors for the detection of nerve agents. **R. K. Sit**, T. W. Bell
- 10:00 24. Efficient bulk heterojunction photovoltaic cells, based on C60 and C70 fullerene dimers. **J. L. Delgado**, N. Martin
- 10:20 25. Isobenzofuran containing near-infrared fluorophores for in vivo imaging. **S. Meek**, T. Swager
- 10:40 26. Macrocyclic artificial photosynthetic reaction center organized on a hexaphenylbenzene core. **V. Garg**, G. Kodis, M. Hamburger, T. A. Moore, A. L. Moore, D. Gust
- 11:00 27. Nonpolymeric thermosensitive supramolecule. **J. E. Betancourt**, J. M. Rivera
- 11:20 28. Novel ambipolar host and hole blocking material system for blue electrophosphorescent OLEDs. **A. B. Padmaperuma**, P. K. Koeck, L. Cosimbescu, E. Polikarpov, A. Von Ruden, J. T. Darsell, D. J. Gaspar, L. S. Sapochak

Section E

Salt Palace Convention Center
155 B

Total Synthesis of Complex Molecules

S. Rasapalli, *Presiding*

- 8:00 29. The total synthesis of desogestrel. **V. Foucher**, R. Clarkson, B. Linclau
- 8:20 30. Approach to (-)-lepadiformine via an intramolecular sulfonamide-mediated oxidative amidation of a phenol. **H. Liang**, Y. Zhou, S. Canesi, M. A. Ciufolini
- 8:40 31. Bioinspired synthetic strategies to palau'amine and related pyrrole-imidazole marine alkaloids via a common cyclopentane intermediate. **M. Zancanella**, Y.-G. Wang, D. Romo
- 9:00 32. Catalytic asymmetric synthesis of methyl-branched lipids of Mycobacterium tuberculosis. **B. ter Horst**, E. Casas Arce, B. L. Feringa, A. J. Minnaard
- 9:20 33. Enantioselective synthesis of (-)-salinosporamide A and derivatives contingent on A1,3-strain-enabled retention of chirality during bis-cyclization of β -ketoamide substrates. **H. Nguyen**
- 9:40 34. Enantioselective total syntheses of amphidinolide B1 and the proposed structure for amphidinolide B2. **L. Lu**, W. Zhang, R. G. Carter
- 10:00 35. Withdrawn.
- 10:20 36. Progress toward the synthesis of hamigeran B. **M. Hamata**, Z. Cai
- 10:40 37. Progress toward the total synthesis of N-methylwielandtinolone C isothiocyanate. **J. A. Brailsford**, K. J. Shea
- 11:00 38. Progress toward the synthesis of type B polycyclic polypropenylated acylphloroglucinols: Total synthesis of 7-epi-culinarone. **M. P. S. Jayasekara**, R. B. Grossman
- 11:20 39. Toward the synthesis of avCys-hdmHis subunit of thiostrepton. **D. N. Litvinov**, J. Kang, S. L. Castle
- 11:40 40. Progress toward the total synthesis of lyconadin A. **Y. Zhang**, S. L. Castle

Claude S. Hudson Award in Carbohydrate Chemistry: Symposium in Honor of Peter H. Seiberger Sponsored by CARB, Cosponsored by ORGN

SUNDAY AFTERNOON

Section A

Salt Palace Convention Center
Combo Ballrooms B/D/F

Elias J. Corey Award for Outstanding Original Contribution in Organic Synthesis by a Young Investigator: Symposium in Honor of Brian M. Stoltz

R. Sarpong, *Organizer*

- 1:30 41. Evolution of iterative multicomponent anion relay chemistry. **A. B. Smith III**
- 2:20 42. Streamlining synthesis via predictably selective C-H oxidation. **M. C. White**
- 3:10 43. Synthetic studies of oxindole-containing natural products. **J. L. Wood**
- 4:00 44. Awardee Address (Elias J. Corey Award for Outstanding Original Contribution in Organic Synthesis by a Young Investigator, sponsored by The Pfizer Endowment Fund). Natural products as a driving force for discovery in organic chemistry. **B. M. Stoltz**

Section B

Salt Palace Convention Center
Ballrooms G&I

Organic Chemistry Collaborations

J. M. Schwab and J. A. Ellman, *Organizers*

- 1:30 45. Catalytic C-H bond functionalization for medicinal chemistry and natural product synthesis. **J. A. Ellman**

- 2:05 46.** Organic synthesis with monoalkoxide pyrrolide (MAP) olefin metathesis catalysts of molybdenum and tungsten. **R. R. Schrock**, S. Miranesco, A. J. Jiang, A. G. Lichtscheidl, Y. Zhao, A. H. Hoveyda, S. J. Meek, S. J. Malcolmson
- 2:40 47.** Understanding chemistry and designing new catalysts: Collaborations between computational and experimental chemists. **K. N. Houk**, P. H-Y. Cheong
- 3:15 48.** Organolithium chemistry in pharmaceutical process research: Searching for the academic-industrial interface. **D. B. Collum**
- 3:50 49.** Collaboration in a center environment. **J. Aubé**
- 4:25 50.** The story of patermine A: A unique marine sponge isolate and potent inhibitor of eukaryotic translation. **D. Romo**, J. O. Liu
- 5:00 51.** Discovery biology fueled with synthetic chemicals. **P. G. Harran**

Section C

Salt Palace Convention Center
155 A

Biolegally-Related Molecules and Processes

J-M. Ahn, *Presiding*

- 1:30 52.** Diversity-oriented synthesis: Enantioselective synthesis of a pool of small molecules as drug candidates. **T. H. Al-Tel**, R. Al-Qawasmeh, W. Voelter
- 1:50 53.** Light-activated nucleotides as molecular tools to probe DNA function. **H. Lusic**, D. D. Young, A. Deiters
- 2:10 54.** Light-regulation of DNA recombination with photocaged Cre recombinase. **W. F. Edwards**, D. D. Young, A. Deiters
- 2:30 55.** Macrocyclic disulfides for model studies of tryptophan-sensitized homolysis of disulfides in proteins. **Z. Huang**, Q-Z. Yang, R. Boulatov
- 2:50 56.** Practical assembly of high-purity small-molecule libraries enables the discovery of a new antiproliferative chemotype. **J. Cui**, K. Matsumoto, H. Lee, M. Suzuki, C. Y. Wang, M. E. Peter, S. A. Kozmin
- 3:10 57.** Rapid identification of novel and potent 1,2,3-triazole based inhibitors of HIV-1 protease using click chemistry techniques. **J. C. Tripp**, M. P. Whiting, Y-C. Lin, J. H. Elder, K. B. Sharpless, V. V. Fokin
- 3:30 58.** Sequence-dependent rate acceleration and enantioselectivity in DNA-based asymmetric catalysis. **A. J. Boersma**, B. L. Feringa, G. Roelfes
- 3:50 59.** Synthesis of vinyl β -lactams with polycyclic aromatic imines. **M. I. Hashim**, D. Bandyopadhyay, B. K. Banik
- 4:10 60.** Thiol-selective fluorogenic reagents for biomolecule labeling. **V. P. Hong**, A. Kisilukhin, M. G. Finn
- 4:30 61.** "Clickable" peptide nucleic acids for delivery of siRNAs. **J. K. Pokorski**, M. L. Hovlid, A-M. Turner, K. Morris, M. G. Finn
- 4:50 62.** Pharmaceutically-relevant diterpenoid biosynthesis in plant cells: Assay development, optimization and quantification. **V. Gaurav**, S. C. Roberts

Section D

Salt Palace Convention Center
155 D

Material, Devices and Switches

J. J. Pak, *Presiding*

- 2:00 63.** Implementation of an all electrochemically driven cyclable set-reset machine on copper rotaxanes. **F. Remacle**

- 2:20 64.** Regioselective addition of phenylthiocyanate pyrrolidine addends to fullerenes. **A. L. Ortiz-Hernandez**, D. M. Rivera, A. J. Athans, L. A. Echegoyen
- 2:40 65.** Sensing via analyte-triggered gelation: Design strategies and implementation. **A. J. McNeil**
- 3:00 66.** Solvent induced high fidelity switching between two discrete supramolecules. **M. Martin-Hidalgo**, J. E. Betancourt, V. Gubala, J. M. Rivera
- 3:20 67.** Synthesis and application of anchored 2,3,5-trifluoro-7,7,8,8-tetracyanoquinodimethane (F3TCNQ) as organic molecular dopants in OLEDs. **P. K. Koech**, J. E. Rainbolt, A. B. Padmaperuma, E. Polikarpov, J. T. Darsell, G. E. Fryxell, L. S. Sapochak, D. J. Gaspar
- 3:40 68.** Synthesis and characterization of thermotropic liquid-crystalline azomethine dimers. **H. D. Mandal**, P. K. Bhowmik, H. Han, A. K. Nedeltchev, J. A. Jimenez-Hernandez, P. M. McGannon, L. Lopez
- 4:00 69.** Synthesis and photoswitch property of unique-shaped bispiropan and bispirooxazine. D. L. Watkins, S. Kumar, **T. Fujiwara**
- 4:20 70.** Toward the synthesis of donor-sigma-acceptor molecules with sulfur-tipped swallowtails using perylene monoimide monoanhydride diene and monoimide monoanhydride diol. **R. Kota**, D. L. Mattem
- 4:40 71.** Tuning the kinetics and wavelength sensitivity of azobenzene-based photoswitches. **M. R. Banghart**, H. M. Wisniewska, J. H. Harvey, Z. Yao, D. Trauner

Section E

Salt Palace Convention Center
155 B

Total Synthesis of Complex Molecules

S. D. Lepore, *Presiding*

- 1:00 72.** Progress toward the total syntheses of cyclocinamides A and B. **J. M. Garcia**, S. S. Curzon, J. P. Konopelski
- 1:20 73.** Progress toward total synthesis of cycloclavine. **F. Petronijević**, P. Wipf
- 1:40 74.** Radical approaches to Alangium and Mitragyna alkaloids. **M. Palframan**, A. Parsons
- 2:00 75.** Rhodium (II) catalyzed oxyamination reactions in the synthesis of malayamycin A. **W. P. Unsworth**, J. Robertson, S. Lamont
- 2:20 76.** Strategies toward the total synthesis of azaspiracid. **D. L. Kuiper**, L. Lu, R. G. Carter
- 2:40 77.** Studies toward the total synthesis of stylissadines. **S. Rasapalli**, S. Stephen, F. Ghanimat, R. P. Gosselin
- 3:00 78.** Synthetic studies toward the total synthesis of ageladine. **S. Rasapalli**, O. B. Olubanwo, M. Agwue
- 3:20 79.** Studies toward spirolides. **C. E. Stivala**, A. Zakarian
- 3:40 80.** Synthetic studies toward the total synthesis of tetrodotoxin. **B. A. Mendelsohn**, M. A. Ciufolini
- 4:00 81.** Total synthesis of celogentin C. **B. Ma**, Y. Zhang
- 4:20 82.** Toward the total synthesis of acutumine. **F. Li**, S. S. Tartakoff, Y. Zhang
- 4:40 83.** Unified synthetic strategy toward scabrolides, sinulochmodin, and inleaganolide via transannular CH insertions and aldol condensations. **G. Liu**, D. Romo

Carl S. Marvel Creative Polymer Chemistry Award in Honor of Geoffrey Coates
Sponsored by POLY, Cosponsored by ORGN and PMSE

Claude S. Hudson Award in Carbohydrate Chemistry: Symposium in Honor of Peter H. Seeberger Sponsored by CARB, Cosponsored by ORGN

SUNDAY EVENING

Section A

Salt Palace Convention Center
Hall 5

Heterocycles, Aromatics, Asymmetric Reactions, Materials, Devices and Switches

A. F. Abdel-Magid, *Organizer*

8:00-10:00

- 84.** Synthesis of clickable materials. **J. Lauko**, M. Juricek, P. H. J. Kouwer, T. Woltinge, A. E. Rowan
- 85.** A hybrid photobioelectrochemical cell producing either electricity or hydrogen. **M. Gervald**, M. Hamburger, D. Gust, A. Moore, T. Moore, **F. Figueroa**
- 86.** Carbonyl group containing and all-carbon oligynes: Syntheses and properties. **S. R. Szafert**, K. Osowska, N. Goula, P. Starynowicz, S. Berski
- 87.** Toward ferroelectric surfaces. **L. Kobr**, J. Vacek, K. Zhao, R. K. Shoemaker, J. C. Price, P. Sozzani, J. Michi
- 88.** Chromium-catalyzed enantioselective addition of allylic bromides to substituted aryl ketones. **K. E. Gohmann**, J. J. Miller
- 89.** π -Stacking of phenylene ethynylene oligomers with a naphthalene scaffold. **B. E. Carson**, W. Komorner, G. Brizius, D. M. Collard
- 90.** A new phosphorous based chiral catalyst for the catalytic asymmetric synthesis of pyrrolidines via 1,3-dipolar cycloadditions of azomethine ylides. **O. Dogan**, S. Eröksüz, P. P. Garner, A. Bulut
- 91.** Asymmetric Mannich reaction of $\{\alpha\}$ -cyano ketones using bifunctional organocatalysts. **J. H. Lee**, H. U. Moon, D. Y. Kim
- 92.** Design of multifunctional phosphorescent emitters with charge transport moieties. **A. B. Padmaperuma**, P. K. Koech, N. Govind, E. Polikarpov, J. T. Darsell, J. L. Male, D. J. Gaspar
- 93.** Discovery of dual fluorescent 1,8-naphthalimide dyes based on balanced seesaw photophysical model: Proof of principle. **P. Nandhikonda**, M. P. Begaye, M. D. Heagy
- 94.** Enantiodivergent pathways in the 1,2-addition of diethylzinc to aldehydes with oxadiazines: A new structural template for asymmetric catalysis. **M. A. Dean**, S. R. Hitchcock
- 95.** Enantioselective construction of quaternary stereogenic carbons by organocatalytic amination of active methine compounds. **S. M. Kim**, B. K. Kwon, D. Y. Kim
- 96.** Enantioselective H-atom transfer reactions: Development of a novel tin-free procedure. **C. Englehart**, M. P. Sibi
- 97.** Enantioselective organocatalytic Michael addition of aldehydes to nitroethylene: Efficient access to $\{\gamma\}$ -amino acids. **L. Guo**
- 98.** Microwave-assisted benzyne click chemistry: Synthesis of benzotriazoles using three component reaction via benzyne intermediate. **H. Ankati**, E. Biehl
- 99.** Molecular devices for studying reaction kinetics under mechanical force. **Z. Huang**, T. J. Kucharski, Q-Z. Yang, C. Li, B. Wang, R. Boulatov
- 100.** N-Aryl arenedicarboximides as brightly fluorescent panchromatic dyes for DSSC applications. **Z. Cao**, P. Nandhikonda, M. D. Heagy
- 101.** Norephedrine, pseudonorephedrine, and oxadiazines as chiral templates for the Trost-Tsuji asymmetric allylic alkylation. **G. S. Mahadik**, S. R. Hitchcock
- 102.** Oligomeric thieno[3,4-b]pyrazines: Models for insight into structure-function relationships of copolymeric systems. **C. L. Heth**, L. Wen, J. P. Niefeld, S. C. Rasmussen
- 103.** Palladium-catalyzed asymmetric difunctionalization of substituted vinyl phenols. **T. P. Patnak**, K. H. Jensen, M. S. Sigman
- 104.** Phase-transfer catalyzed asymmetric synthesis of s-naproxen. **M. Binkley**, K. Harper, M. A. Christiansen, M. B. Andrus
- 105.** Phase-transfer catalyzed synthesis of the soy isoflavonoid s-equal. **A. W. Butler**, A. L. Calvert, M. Binkley, M. A. Christiansen, M. B. Andrus

- 106.** Photocatalytic reduction of NAD using tin(IV) porphyrins. **S. Prasad**, P. Thordarson
- 107.** Progress toward the synthesis of himeridine A. **N. D. Collett**, R. G. Carter
- 108.** Resolution of racemic 2-hydroxy carboxylic acids by glycolate oxidase. **S. Das**, J. H. Glenn IV, V. Subramanian
- 109.** Self-assembled dinuclear cobalt(II)-salen catalyst through hydrogen-bonding: Application to enantioselective nitro-aldol reaction. **J. Park**, K. Lang, K. A. Abboud, S. Hong
- 110.** Stereoselective cycloadditions of cyclopentenone with anthracene derivatives and subsequent asymmetric transformations. S. Jones, **Z. Najah**
- 111.** Stereoselective synthesis of β -hydroxyenduraciddine. **K. S. Olivier**, M. S. VanNunwenhze
- 112.** Sterically-encumbered pi-conjugated polymers: Synthesis, structure, and their various applications. **R. J. Gilliard Jr.**, R. C. Smith
- 113.** Synthesis and characterization of thieno[3,4-b]pyrazine-based materials: Effects of analogous extended fused-ring building blocks. **J. P. Niefeld**, C. L. Heth, T. P. Gonnella, S. C. Rasmussen
- 114.** Synthesis and development of β -hydroxyalicyclichydrazones and family of ligands as an effective asymmetric catalyst. **S. Banerjee**, S. R. Hitchcock
- 115.** Synthesis and electronic characterization of poly (α,α -dihexylsextithiophene). **J. E. Beaver**, I. D. Reingold
- 116.** Synthesis and optical properties of triphenylene-based dendritic donor perylenebisimide acceptor systems. Z. Peng, **M. Bagui**
- 117.** Synthesis of a new, non-natural amino acid based on (1R, 3S) camphoric acid and its application as an asymmetric organocatalyst in the direct aldol condensation. **J. B. Eagles**, S. R. Hitchcock
- 118.** Synthesis of C8,9-amide geldanamycin analogs. **Y. Wang**, M. B. Andrus, J. Liu
- 119.** Synthesis of kurasonin B analogs. **J. R. Nielson**, M. B. Andrus, M. A. Christiansen
- 120.** Synthesis of soluble low band gap thieno[3,4-b]pyrazine-dithieno[3,2-b:2'3'-d]pyrrole-based copolymers for organic photovoltaic applications. **S. J. Evenson**, S. C. Rasmussen
- 121.** Toward electrochemical control of radical-radical interactions. D. J. R. Brook, **V. Chemstruck**
- 122.** Toward the synthesis of the C22-C34 fragment of antiscorcin B via an allylic diazene (ADR) and Ireland Claisen (ICR) rearrangement. **D. R. Clay**, M. McIntosh
- 123.** Toward the total synthesis of antiscorcin B via Ireland-Claisen and allylic diazene rearrangement sequence. **J. Rivero-Castro**, M. McIntosh
- 124.** Toward the synthesis of sclerophytin A. **S. S. Dormi**, J. M. Hutchison, H. A. Lindsay, M. McIntosh
- 125.** P(*i*-BuNCH₂CH₂)₂N: Highly effective Lewis base catalyst for the trifluoromethylation of aromatic, aliphatic, and heterocyclic aldehydes and ketones using TMSOCF₃. **V. R. Chintareddy**, J. G. Verkade
- 126.** Preparation of 5-nitro-2-aminobenzo[b]thiophenes and 1-(2-amino-5-nitrophenyl) ethanones via microwave irradiation. **A. A. Rais**
- 127.** Withdrawn.
- 128.** Process for the preparation of substituted 5-aminotriazolones. **M. Castaldi**, T. A. Brandt, D. Whritenour, M. Shaffer, S. Lilley
- 129.** Progress toward the synthesis of 1,5-methylenebisbulvalene. I. D. Reingold, **A. N. Brown**
- 130.** Progress toward the synthesis of polycyclic aromatic compounds. **M. A. Khoshnevisan**, Z. A. Page, N. Eldredge, M. Weir, I. D. Reingold
- 131.** Ruthenium catalyzed intramolecular cyclization reactions to synthesize dihydroxyproles, indoles and benzofurans. **R. Nair**, D. B. Grotjahn

The official technical program for the 237th National Meeting is available online at oasys2.confex.com/acs/237nm/techprog/.

132. Studies toward the synthesis of naamide A: Rapid access to 2-aminoimidazoles. **J. D. Sullivan**, R. L. Giles, R. E. Looper
133. Synthesis of 3-cyano-2-pyridones from malononitrile. **C. M. Kite**, C. B. Huehls, R. E. Sammelson
134. Synthesis of 4-alkynylpyrazoles via Sonogashira coupling of 4-iodopyrazoles with terminal acetylenes. **M. Zora**, S. Karabiyikoglu, A. Kivrak
135. Synthesis of alkenyl-substituted benzo-pyran/benzo[b]oxepine derivatives via microwave-accelerated Wittig reaction. R. Bera, G. Dhananjaya, S. N. Singh, P. R. Kumar, **K. Mukkanti**, M. Pal
136. Synthesis of novel 2-anilino-4-aryloxy-pyridines using 2-chloro-4-fluoropyridine. **A. L. Roberts**, A. P. Dishington
137. Synthesis of novel bis-heterocycles by ring-closing metathesis. **D. Ashok**, K. Kiran
138. Synthesis of quinoxaline derivatives bearing various substituents at 2-, 3-, and 6-positions and evaluation of their antibacterial activities. **A. Katoh**, Y. Matsumura, T. Sugiyama
139. Synthesis of seven-membered rings via intramolecular nitrile oxide cycloaddition reactions. **D. M. Solano**, J. S. Oakdale, M. J. Kurth
140. Synthesis of trinitrobenzene derivatives for applications in energetic materials. **N. A. Straessler**
141. Synthesis, and biological validation of a new phosphotyrosine mimetic. **B. Quade**, L. Johnstone, L. Zhang, J. J. Skoko, J. S. Lazo, P. Wipf
142. Synthetic approaches to nonacene and its derivatives. **D. Khon**, Y. Zhao, R. Mondal, D. C. Neckers
143. Tandem esterification-dipolar cycloaddition for the preparation of fused heterocycles. **E. L. Munson**, C. D. Rickett, C. C. Browder
144. Cascade reactions leading to Cope rearrangements and m-substituted aromatics. **T. M. Mitzel**, M. Smith
145. Copper catalyzed cyclizations of propargylguanidines. **M. J. Gainer**, N. R. Newbold, **R. E. Looper**
146. Cross-linking of aromatic poly(thioether)s. **D. K. Mohanty**, M. Yonkey, C. A. Crouse, Z.-B. Zhang
147. Developmental pathway modifiers based on pyridines. **A. L. McIver**, D. D. Young, N. Nascone-Yoder, A. Deiters
148. Electron initiated chemistry of isocyanates. **S. J. Peters**, J. Klen, N. Smart
149. Electronic and ring strain effects on the zwitterionic 1,3-diaza-Claisen rearrangement. **R. Aranha**, J. Madalengoitia
150. Experiment and theory study on the cycloadditions of nitrones and alkenes tethered by benzimidazoles. **L. Meng**, S. C. Wang, J. C. Fettinger, M. J. Kurth, D. J. Tantillo
151. Green synthesis of biologically active heterocyclic natural products. **S. Rasapalli**, R. P. Gosselin, S. Stephen, M. Agwue, A. Pincins
152. Hydroformylation of homoallylic azides: A rapid approach toward alkaloids. **A. Mann**, T. Spangenberg, B. Breit, M. Taddei
153. Indolizidine and pyrrolizidine alkaloids via a reductive coupling strategy. **H. A. Lindsay**, **B. D. Raven**
154. Lithium diisopropylamide mediated ortholithiation: Substrate-independent rates and catalysis by lithium chloride. **L. Gupta**, M. S. Viciu, D. B. Collum
155. Mechanistic studies on the decarboxylation of pyrroleacetic acids. **J. H. Byers**
156. New syntheses of 4,4'-diacetylstilbene and 4,4'-dicyanostilbene and their photochemical characterization. C. Pye, **R. Isovitsch**

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157. Novel heteroannulation using (trimethylsilyl)diazomethane: Construction of pyrroloisouquinolines. **S. P. Brown**, B. R. Rosen, M. Vimalratana, L. Zhu, J. C. Medina
158. Novel method for the synthesis of indazolone derivatives. **J. S. Oakdale**, D. M. Solano, M. J. Kurth
159. Withdrawn.
160. One pot microwave synthesis of novel 2-benzimidazole and 2-benzothiazole scaffolds. **K. Pattabiraman**, R. El-Khoury, **K. Modi**, L. McGee, D. Chow
161. One-pot N-alkylation/Heck approach to substituted indoles. **H. P. Beck**, M. L. Weinrich
162. Organometallic 3-D cage formation via alkyne cyclo-coupling reactions. **T. M. Mitzel**, **J. Love**

MONDAY MORNING

Section A

Salt Palace Convention Center
Combo Ballrooms B/D/F

Herbert C. Brown Award for Creative Research in Synthetic Methods: Symposium in Honor of Scott E. Denmark

J. L. Wood, *Organizer*

- 8:00 163. Discovery and surprises with natural products. **E. M. Carreira**, R. W. Geisser, C. Nilewski, C. S. Schindler, A. M. Szpilmann
- 8:45 164. LDA-mediated ortholithiations: Salt effects and autocatalysis. **D. B. Collum**
- 9:30 165. Complex alkaloid total synthesis. **M. Movassaghi**
- 10:15 166. Attractive secondary interactions in enantioselective reactions catalyzed by urea and guanidinium ion derivatives. **E. N. Jacobsen**, S. J. Zuend, C. Uyeda
- 11:00 167. **Award Address** (Herbert C. Brown Award for Creative Research in Synthetic Methods, sponsored by Purdue Borane Research Fund and the Herbert C. Brown Award Endowment). Inventing and understanding catalytic, enantioselective reactions. **S. E. Denmark**

Section B

Salt Palace Convention Center
Ballrooms G&I

Boronate Chemistry in the 21st Century

G. A. Molander, *Organizer*

- 8:15 168. Copper-promoted C-X bond cross-coupling via boronic acids: Chan-Lam coupling. **P. Y. S. Lam**
- 9:00 169. Development of a practical catalytic enantioselective carbonyl allylboration with stable pinacol boronates. **D. G. Hall**
- 9:45 170. Iridium-catalyzed C-H borylation: Recent synthetic advances. V. A. Kallepalli, S. M. Preshlock, P. C. Roosen, R. E. Maleczka Jr., **M. R. Smith III**
- 10:30 171. Oxime-derived palladacycles as precatalysts in cross-coupling reactions. **C. Nájera**
- 11:15 172. Catalytic asymmetric diboration: An enabling tool for organic synthesis. **J. P. Morken**

Section C

Salt Palace Convention Center
155 A

Heterocycles and Aromatics

H. A. Lindsay, *Presiding*

- 8:00 173. Aromaticity and antiaromaticity in annulenes: Origin of the delocalization vs. localization of double bonds. **F. M. Bickelhaupt**
- 8:20 174. Coarctate cyclization of ester terminated azo-ene-yne: Synthesis of alpha-ketoisindazole esters and their conversion into non-natural amino acids. **S. P. McClintock**, N. Forster, M. M. Haley

- 8:40 175. Computed NMR shielding increments over unsaturated five-membered ring heterocyclic compounds as a measure of aromaticity. **N. H. Martin**, J. E. Rowe, E. L. Pittman
- 9:00 176. Efficient synthesis of various fused pyrroloheterocycles. **S. P. Gorugantula**, G. Carrero-Martinez, B. C. G. Söderberg
- 9:20 177. Synthesis of tryptophan derivatives via a palladium-catalyzed reductive N-heteroannulation. **C. A. Dacko**, B. C. G. Soderberg
- 9:40 178. Examining the boundaries of palladium catalysis in strained aryl-aryl coupling reactions. **B. D. Steinberg**, L. T. Scott
- 10:00 179. Exploration of renewable furans for the green synthesis of heterocyclics. **S. Rasapalli**, A. Pincins, J. Hubley
- 10:20 180. Exploration of substituent effects in a Diels-Alder approach to biaryls. **M. R. Naffziger**, R. G. Carter
- 10:40 181. Formal synthesis of telomestatin. **J. Linder**, C. J. Moody
- 11:00 182. Microwave-assisted zinc chloride-catalyzed synthesis of substituted pyrroles from homopropargyl azides. **R. Dembinski**, P. Wyrebek, A. Sniady, N. Bewick, Y. Li, A. Mikus
- 11:20 183. Mild Friedel-Crafts acylation of furan with various carboxylic acids. **M. Opietnik**, S. Medjakovic, F. W. Liebner, A. Jungbauer, T. Rosenau
- 11:40 184. Octa acetylene phthalocyanine: Conjugation extending transformations to novel graphene-like materials. **M. Juricek**, P. H. J. Kouwer, J. Rehak, J. Sly, A. E. Rowan

Section D

Salt Palace Convention Center
155 D

New Reactions and Methodology

B. C. Das, *Presiding*

- 8:00 185. The stereoselective conversion of polyols to 3,4,5,6-tetrahydrooxepanes. A. Onorato, C. Pavlik, I. D. Berghorn, M. A. Invernale, **M. B. Smith**, G. Solzing
- 8:20 186. Microwave synthesis and reactions of cyclic vinyl boronic acids. **L. McNulty**, J. Bishop
- 8:40 187. 1,2,4-Triazolide anion: An active nucleophilic catalyst for ester aminolysis. **X. Yang**, **V. B. Birman**
- 9:00 188. A new method for the synthesis of racemic and chiral aziridine 2-phosphonates. **O. Dogan**, A. Bulut, A. Aslan, S. Tan, H. Babiz
- 9:20 189. An intramolecular Wolff rearrangement toward beta-lactams. **Y. M. Vaske**, J. P. Konopelski
- 9:40 190. Application of novel glycosylation method to the concise synthesis of B. anthracis spore BclA tetrasaccharide. **Y. Wang**, P. Wang
- 10:00 191. Boronic acids: Productive tags for phase-switch chemistry. **S. Mothana**, J.-M. Grasso, D. G. Hall
- 10:20 192. Catalytic allylic C-H alkylation. **A. J. Young**, M. C. White
- 10:40 193. Chiral sulfur methylene transfer reagents for tandem aldol epoxidations. **J. A. Hansen**, I. Boyd, B. Riley
- 11:00 194. Chloro/bromotrimethylsilylanepotassium nitrate: New reagent system for alpha-halogenation of acetophenones. G. K. S. Prakash, R. Ismail, C. Panja, **T. Mathew**, G. A. Olah
- 11:20 195. Cope rearrangement route to hexahydroazulenes. **C. Seizert**, **V. B. Birman**
- 11:40 196. Copper(II)-catalyzed aminohydroxylations of styrenes and 1,3-dienes with N-sulfonyloxaziridines. **D. J. Michaelis**, T. P. Yoon

Section E

Salt Palace Convention Center
155 B

Physical Organic Chemistry: Calculations, Mechanisms, Photochemistry and High-Energy Species

M. B. More, *Organizer*

- 9:00 197. Ab initio transition state theory for polar organic reactions in solution. **J. N. Harvey**
- 9:20 198. When pulling is not enough: Force-independent kinetics of thiol/disulfide exchange in nonmacromolecular substrates. **R. Boulatov**
- 9:40 199. Withdrawn.
- 10:00 200. Effect of substituents on the rate of azomethine ylide formation from aziridines: A computational approach. **H. D. Banks**
- 10:20 201. Esterification in ionic liquids: The influence of solvent basicity. **T. P. Wells**, J. P. Hallett, C. K. Williams, T. Welton
- 10:40 202. Fluorescence and chemiluminescence properties of indolylmaleimide derivatives. **M. Nakazono**, A. Jinguiji, K. Saita, S. Nanbu, R. Kuwano, K. Zaitou
- 11:00 203. Withdrawn.
- 11:20 204. Functionalization of the unactivated carbon-hydrogen bond via ozonation. **B. Rindone**, F. Saliu, R. Suarez Bertoa
- 11:40 205. Influence of aza substitution on racemization barriers and acidobasic properties of helicenes. **J. Chocholeuousová**, J. Vacek, J. Misek, I. G. Stará, I. Stary

Green Chemistry Sponsored by YCC, Cosponsored by CHAS, I&EC, CEI, INOR, and ORGN

MONDAY AFTERNOON

Section A

Salt Palace Convention Center
Combo Ballrooms B/D/F

James Flack Norris Award in Physical Organic Chemistry: Symposium in Honor of Bernd Giese

C. A. Maryanoff, *Organizer*

- 1:30 206. Membrane free radical oxidation: Phospholipids and 7-dehydrocholesterol as targets of oxidative stress. L. Xu, K. A. Tallman, W. Liu, **N. A. Porter**
- 2:20 207. Photoinduced processes in self-assembled systems and nano-objects. **L. De Cola**
- 3:10 208. Chromatic orthogonality: Toward an all-photochemical peptide synthesis. **C. G. Bochet**, J.-L. Débieux
- 4:00 209. **Award Address** (James Flack Norris Award in Physical Organic Chemistry, sponsored by the ACS Northeastern Section). Peptides use relay amino acids for long distance electron transfer processes. **B. Giese**

Section B

Salt Palace Convention Center
Ballrooms G&I

Boronate Chemistry in the 21st Century

G. A. Molander, *Organizer*

- 1:15 210. Secondary alkyl Suzuki reaction: Reaction discovery using parallel micro-scale experimentation. **S. D. Dreher**, P. G. Dormer, G. A. Molander, D. L. Sandrock
- 2:00 211. Probing the amphotericin B ion channel via iterative cross-coupling with MIDA boronates. **M. D. Burke**
- 2:45 212. Stereoselective coupling reactions of secondary homochiral boronate esters. **C. M. Crudden**

‡ Cooperative Cosponsorship

- 3:30 213.** Recent developments of potassium organotrifluoroborates in organic synthesis: Rhodium-catalyzed reactions. **J. P. Genet**
- 4:15 214.** Bonding boron to aromatic metalation. **V. Snieckus**

Section C

Salt Palace Convention Center
155 A

Heterocycles and Aromatics

B. K. Banik, *Presiding*

- 1:00 215.** Bismuth nitrate-induced straightforward synthesis of quinoxalines. **E. Cuate**, D. Bandyopadhyay, B. K. Banik
- 1:20 216.** Novel EDCl-mediated oxazole rearrangement and its application toward the first total synthesis of a marine alkaloid from the tunicate *Dendrodoa grossularia*. **C. D. Hupp**, J. J. Tepe
- 1:40 217.** Synthesis of indole-based AhR receptor agonists. **M. Opietnik**, S. Medjakovic, F. W. Liebner, A. Jungbauer, T. Rosenau
- 2:00 218.** Oxidation chemistry of tocopheramines. **S. Böhmendorfer**, L. Gille, F. Mazzini, T. Netscher, T. Rosenau
- 2:20 219.** Studies on the detailed mechanism of the ortho-quinonemethide formation of alpha-tocopherol. **S. Böhmendorfer**, T. Rosenau
- 2:40 220.** Progress toward the synthesis of indolizidine pyrrolizidine alkaloids. **H. A. Lindsay**, B. D. Raven, A. M. Kaufmann
- 3:00 221.** Ruthenium catalyzed intramolecular azide-alkyne cycloaddition. **A. Chanda**, V. V. Fokin
- 3:20 222.** Synthesis of *N*-heterocyclic carbene carboxylates and study of factors affecting decarboxylation. **B. Van Audsall**, J. Glass, V. Kincaid, A. Aarif, J. Louie
- 3:40 223.** Synthetic routes to bicyclic diazanium salts. **M. Brewer**, M. I. Javed, J. M. Wymen
- 4:00 224.** Withdrawn.
- 4:20 225.** Thiol-induced controlled fragmentation of oxanorbornadiene derivatives. **A. A. Kisluikhin**, V. P. Hong, M. G. Finn
- 4:40 226.** Triphenylenes and azatriphenylenes via [2+2+2] cyclootrimerization: Total synthesis of tylophorine and dehydrotylophorine. **A. L. McIver**, D. D. Young, A. Deiters

Section D

Salt Palace Convention Center
155 D

New Reactions and Methodology

L. McNulty, *Presiding*

- 1:00 227.** Design, synthesis and evaluation of guanidine analogs as potential drugs for stroke therapeutics. **M. Y. Cortes-Salva**, J. C. Antilla, A. Behensky, J. Cuevas, K. Pennypacker
- 1:20 228.** Novel strategy for synthesizing substituted 1,3-dienes from allylic alcohols. S. Mahalingam, J. Anguniano, K. Hema, T. Evans, G. W. Kabalka, **B. C. Das**
- 1:40 229.** Phosphineless iron-catalyzed carbon-carbon bond cross-coupling reactions. **P. Vogel**, C. M. Rao Volla, R. Loska, S. R. Dubbaka
- 2:00 230.** Reaction of a 1,3-oxazolidine-2,4-dione with carbon nucleophiles. **G. Galliani**, B. Rindone, F. Salu, R. Suarez Bertoa, A. Terraneo
- 2:20 231.** Reductive coupling of allenes and nitriles. **M. D. Manojlović**, P. Wipf
- 2:40 232.** Scope and mechanism of an unusual route to hydrazone carbamates. **C. C. Browder**, L. C. Paterson

- 3:00 233.** Second-generation epoxide-based synthetic methodology for the elaboration of polypropionate modules. **J. A. Prieto**, R. R. Rodriguez, J. Rentas
- 3:20 234.** Studies of a new acid-catalyzed cyclization reaction using an automated microreactor system. **H. Fang**, Q. Xiao, P. E. Floreancig, S. G. Weber
- 3:40 235.** Synthesis of indolo- and pyrrolo[2,1-*a*]isoquinolines and [1,2-*a*]isoquinolines by the electrophilic cyclization of alkynes. **A. K. Verma**, J. Singh, R. C. Larock
- 4:00 236.** Synthesis of pyrazoles via electrophilic cyclization of hydrazones of alkynes and alkyneones. **M. Zora**, A. Kivrak
- 4:20 237.** The development of a solid-supported gallium triflate derivative and its evaluation as a catalyst for the ketonic Strecker reaction under continuous flow. **C. Wiles**, P. Watts
- 4:40 238.** Using mechanistic studies in the development of Pd(II)-catalyzed alcohol oxidation coupled alkene functionalization reactions. **K. M. Gligorich**, Y. Iwai, S. A. Cummings, M. S. Sigman

Section E

Salt Palace Convention Center
155 B

Physical Organic Chemistry: Calculations, Mechanisms, Photochemistry and High-Energy Species

M. B. Smith, *Presiding*

- 1:30 239.** Interconversion of reactive intermediates: Nitrenes, diradicals, carbenes and ylides. **C. Wenstrup**
- 1:50 240.** A TDDFT investigation of novel benzobisazoles for use in photovoltaic technology. **A. L. Tomlinson**
- 2:10 241.** Transition state geometries from axially-strained reactants. **R. Boulatov**
- 2:30 242.** Introducing the first category of organic cation-cation clusters: A DFT study. A. Shokri, **A. Fattahi**
- 2:50 243.** Isodesmic or homodesmotic: Choosing proper equations for evaluating strain energies and stabilizing effects. **M. D. Wodrich**, C. Corninboeuf
- 3:10 244.** Measuring rates of reaction of indium mediated allylations. **I. A. Olson**, W. J. Bowyer
- 3:30 245.** Mechanism of indium mediated allylations and the structure of the organoindium intermediate. **A. M. Sessler**, W. J. Bowyer
- 3:50 246.** Reaction of molecular oxygen with tri-arylphosphines. **B. D. Beaver**, C. Kabana, V. Fiorina
- 4:10 247.** Substituent effects on equilibrium acidity of the CH vertex in $CB_{11}H_{12}^-$. **A. Akdag**, J. Chocholoušová, P. J. Schreiber, J. Vacek, J. Michl
- 4:30 248.** Direct observation of a diazine electronic excited (S_1) state by ultrafast infrared spectroscopy. **Y. Zhang**, G. Burdzinski, J. Kubicki, M. S. Platz

ACS Award in Industrial Chemistry: Symposium in Honor of George G. I. Moore Sponsored by BMGT, Cosponsored by ORGN² and PROF, Financially supported by 3M

MONDAY EVENING

Section A

Salt Palace Convention Center
Hall 5

Sci-Mix

A. F. Abdel-Magid, *Organizer*

- 8:00-10:00**
96-97, 108-109, 112-113, 121, 125, 129, 139, 144, 151, 154-155, 162. See previous listings.
329, 332, 337, 341, 350, 371, 378, 387, 396, 402, 491, 495, 499, 510, 524, 530, 534, 538, 540, 545, 555, 560. See subsequent listings.

TUESDAY MORNING

Section A

Salt Palace Convention Center
Combo Ballrooms B/D/F

ACS Award for Creative Invention: Symposium in Honor of Robert H. Grubbs

H. M. L. Davies, *Organizer*

- 8:20 249.** Allosteric supramolecular systems. **C. A. Mirkin**
- 9:00 250.** Complex nanoscale objects as diverse carrier systems for broad applications in nanomedicine. H. Fang, Y. Li, Y. Lin, G. Shen, Z. Wang, K. Zhang, C. Cannon, D. Hunstad, J.-S. A. Taylor, **K. L. Wooley**
- 9:40 251.** ROMP-based multifunctional polymers for DNA detection and targeted therapeutics. **S. T. Nguyen**, B. R. Stepp, D. Smith, E. Pentzer, J. M. Gibbs-Davis, P. A. Berlin, K. J. Watson
- 10:20 252.** Amplifying polymers for ultrasensitive sensors. **T. M. Swager**
- 11:00 253. Award Address** (ACS Award for Creative Invention, sponsored by ACS Corporation Associates), Olefin metathesis catalysts for the synthesis of large and small molecules. **R. H. Grubbs**

Section B

Salt Palace Convention Center
Ballrooms G&I

ACS Award for Research at an Undergraduate Institution: Symposium in Honor of Moses N. Lee

J. T. Gupton, *Organizer*

- 8:20 254.** Dihydroium carboxamidates in catalysis. **M. P. Doyle**
- 9:00 255.** Threading polyintercalation. **B. L. Iversen**
- 9:40 256.** DNA molecular recognition and compound design to specifically target the DNA minor groove. **W. D. Wilson**, Y. Liu, M. Munde, M. Rahimian, A. Kumar, D. W. Boykin
- 10:20 257.** Natural products and nature's lessons: Solutions to the sequence selective recognition of duplex DNA. **D. L. Boger**
- 11:00 258. Award Address** (ACS Award for Research at an Undergraduate Institution, sponsored by Research Corporation). Sequence specific recognition of DNA by small molecules in the minor groove: Examples of biological applications. **M. Lee**

Section C

Salt Palace Convention Center
155 A

Peptides, Proteins and Amino Acids

S. L. Castle, *Presiding*

- 9:00 259.** New PVA-g-PEG resins as supports and scavengers in solid phase synthesis. J. Luo, T. Kassem, X. Jia, W. D. Lubell, **X. X. Zhu**
- 9:20 260.** An unexpected photo-induced site-selective protein cleavage reaction. **N. Floyd**, N. J. Oldham, C. J. Eyles, M. Brouard, B. G. Davis
- 9:40 261.** Engineering heterochiral peptides. **J. L. Kulp III**, T. D. Clark
- 10:00 262.** Improvement of PNA-based DNA detection via cross-linked PNA oligomers. **C. M. Micklitsch**, D. H. Appella
- 10:20 263.** Ion channels based on alpha, gamma-cyclic peptides. **M. Amorin**, L. Castedo, J. R. Granja
- 10:40 264.** Rational design of peptidomimetics for class B GPCRs using alpha-helix mimetics. **J.-M. Ahn**
- 11:00 265.** Synthesis of a cyclic pentapeptide mimic for the active site of cytochrome c oxidase. **M. E. Mahoney**, Ö. Einarsdóttir, J. P. Konopelski

- 11:20 266.** Ultrasound imaging for breast cancer. **M. El-Dakdouki**, J. Trendel, J. Sarver, N. Ellis, P. W. Erhardt

Section D

Salt Palace Convention Center
155 D

New Reactions and Methodology

M. Al-Masum, *Presiding*

- 8:20 267.** Multistep synthesis of complex boronic acids from simple MIDA boronates. **E. P. Gillis**, M. D. Burke
- 8:40 268.** Development of palladium-catalyzed umpolung allylation reactions. **E. R. Jarvo**
- 9:00 269.** Ethyl lactate as an environmentally benign tunable solvent for imine synthesis. **J. Bennett**, K. Charles, M. R. Miner, C. Heuberger, E. Spina
- 9:20 270.** Facile Pd/C-catalyzed degradation of environmentally hazardous chlorinated organic compounds. **Y. Monguchi**, A. Kume, S. Ishihara, S. Wada, T. Maegawa, H. Nagase, H. Sajiki
- 9:40 271.** Functionalized magnetic nanoparticles: A novel heterogeneous catalyst support. **V. Polshettiwar**, R. S. Varma
- 10:00 272.** High pressure, high temperature flow chemistry: Extending the scope of organic chemical reactions. **L. C. Lengyel**, A. Wootsch, R. Jones, G. Dorman, L. Urge, F. Darvas
- 10:20 273.** High throughput synthesis using continuous flow reactors. **P. Watts**, C. Wiles
- 10:40 274.** Hydrocarbon oxidation vs. C-C bond forming approaches for efficient synthesis of oxygenated molecules: Part II. **N. A. Vermeulen**, M. C. White
- 11:00 275.** Intramolecular anodic olefin coupling reactions: The use of a nitrogen trapping group. **H.-C. Xu**, K. D. Moeller
- 11:20 276.** Metal-free oxidative cyclization of urea-tethered alkenes with hypervalent iodine. **B. M. Cochran**, F. E. Michael
- 11:40 277.** Methods for the preparation of tethered aldehyde ynoates and 2,5-dihydroxypropanes from γ -silyloxy- β -hydroxy- α -diazoacarbonyl compounds. **M. Brewer**, C. Draghici, A. Bayir

Section E

Salt Palace Convention Center
155 B

Molecular Recognition and Self-Assembly

R. G. Harrison, *Presiding*

- 9:00 278.** (Hem)capsules based on ionic interactions. **G. V. Oshovsky**, D. N. Reinhardt, W. Verboom
- 9:20 279.** A molecular imprinting approach to lead-binding materials inspired by the human pigment, eumelanin. **J. M. Belitsky**
- 9:40 280.** Colorimetric ee sensor for monofunctional analytes. **S. L. Wiskur**
- 10:00 281.** Developing sensors based on analyte-triggered gelation: Initiating self-assembly via oxidation-induced planarization. **J. Chen**, A. J. McNeil
- 10:20 282.** Dynamic covalent surfactants. **C. B. Minkenberg**, J. H. van Esch, L. Florusse
- 10:40 283.** Fluorescent changes and mechanistic study of various fluorescein derivatives and its application. **H. N. Kim**, K. Swamy, J. Yoon

The official technical program for the 237th National Meeting is available online at oasys2.confex.com/acs/237nm/techprogram/.

- 11:00 284.** Fluorescent sensors by molecular recognition and response selectivity. **D. J. Dyer**, Q. Best, R. Xu, G. A. Hudson, M. McCarroll, L. Wang
- 11:20 285.** Introduction of multiple functional groups onto the periphery of supramolecular 3-D systems. **K. Ghosh**
- 11:40 286.** Metalloresponsive liquid crystalline ligands. **B. M. McKenzie**, K. A. Burke, P. T. Mather, S. J. Rowan

TUESDAY AFTERNOON

Section A

Salt Palace Convention Center
Combo Ballrooms B/D/F

Albert I. Meyers Memorial Symposium

P. J. Reider and A. J. Robichaud,
Organizers

- 1:00 287.** Studies in natural products synthesis. **D. A. Evans**
- 1:50 288.** Ring forming strategies in asymmetric catalysis. **T. Rovis**
- 2:40 289.** Recent studies in enantioselective natural products total synthesis. **L. E. Overman**
- 3:30 290.** Organotrifluoroborates: Transformational reagents for Suzuki coupling. **G. A. Molander**
- 4:20 291.** Rapid formation of molecular complexity in natural product synthesis. **E. J. Sorensen**

Section B

Salt Palace Convention Center
Ballrooms G&I

ACS Award for Affordable Green Chemistry: Symposium in Honor of Geoffrey W. Coates

R. J. McMahon, *Organizer*

- 1:00 292.** Organic catalysts for controlled polymerization reactions. **R. M. Waymouth**, J. L. Hedrick, M. K. Kiesewetter, W. Jeong, E. J. Shin
- 1:50 293.** Lessons learned from a multicatalyst system. **D. T. McQuade**
- 2:40 294.** Olefin metathesis catalysts for the efficient conversion of seed oils. **R. H. Grubbs**
- 3:30 295.** Award Address (ACS Award for Affordable Green Chemistry, sponsored by the Rohm & Haas Company). Polymer synthesis using C1 feedstocks. **G. W. Coates**

Section C

Salt Palace Convention Center
155 A

Asymmetric Reactions and Syntheses

Y. Lu, *Presiding*

- 1:20 296.** *N*-(*p*-Dodecylphenylsulfonyl)-2-pyrrolidinecarboxamide: A practical proline mimetic for facilitating enantioselective aldol and Mannich reactions. **H. Yang**, R. G. Carter
- 1:40 297.** Asymmetric, intramolecular heteroatom Michael addition using organocatalysis: Progress toward the synthesis of Cermizine D. **E. C. Carlson**, R. G. Carter
- 2:00 298.** Alpha-substituted allylic boronates via a formal catalytic asymmetric alkene isomerization/borylation sequence: Application to the enantioselective synthesis of alpha-hydroxyalkyl heterocycles. **S. Lessard**, F. Peng, D. G. Hall

- 2:20 299.** Aminoxylation directed domino reactions. **M. Lu**, G. Zhong
- 2:40 300.** Asymmetric cobalt-catalyzed intramolecular C-H amination with arylsulfonyl azides. **K. B. Fields**, J. V. Ruppel, X. P. Zhang
- 3:00 301.** Asymmetric Cu-catalyzed extended conjugate additions. **T. den Hartog**, D. van Dijken, S. R. Hartuyunyan, D. Font, A. J. Minnaard, B. L. Feringa
- 3:20 302.** Asymmetric transformations in water using a DNA-based catalyst. **A. J. Boersma**, B. L. Feringa, G. Roelfes
- 3:40 303.** Asymmetric Sc(III)-catalyzed additions of nucleophiles to isatins. **N. V. Hanhan**, T. Chang, A. Sahin, A. K. Franz
- 4:00 304.** Asymmetric Suzuki arylation of alpha-bromoamides. **P. M. Lundin**, G. C. Fu
- 4:20 305.** Bifunctional catalysis by cinchona alkaloids: A mechanism explained. **C. S. Cucinotta**
- 4:40 306.** Catalytic asymmetric synthesis of *P*-stereogenic phosphinates and phosphine oxides by ARCM. **J. S. Harvey**, S. J. Malcolmson, K. S. Dunne, S. J. Meek, R. R. Schrock, A. H. Hoveyda, V. Gouverneur

Section D

Salt Palace Convention Center
155 D

New Reactions and Methodology

M. B. Steffensen, *Presiding*

- 1:20 307.** NaO₄-oxidized carbonylation of amines to ureas. **P. Shelton**, Y. Zhang, T. H. H. Nguyen, L. McElwee-White
- 1:40 308.** New titanium (IV) mediated reactions with chelating leaving groups: Stereoretentive one-step benzoylamination of secondary alcohols. **S. D. Lepore**, D. Mondal
- 2:00 309.** Withdrawn.
- 2:20 310.** One-step three-component reactions of organotrifluoroborates with carbonyl and amine derivatives. **N. A. Petasis**, **M. Myslinska**, A. N. Butkevich
- 2:40 311.** P(*i*-BuNCH₂CH₂)₃N: An efficient nonionic Lewis base as promoter for room-temperature synthesis of α,β -unsaturated esters, fluorides, ketones and nitriles using Wadsworth-Emmons phosphonates. **V. R. Chintareddy**, J. G. Verkade
- 3:00 312.** Polymer-mounted C₆H₄CH₂N₂=(MeNCH₂CH₂)₂N: A green, efficient and recyclable catalyst for room-temperature transesterifications and amidations of unactivated esters. **V. R. Chintareddy**, J. G. Verkade
- 3:20 313.** P(*i*-PrNCH₂CH₂)₃N: An efficient catalyst for TMS-1,3-dithiane addition to aldehydes. **K. Wadhwa**, J. G. Verkade
- 3:40 314.** P(*i*-PrNCH₂CH₂)₃N: An effective Lewis-base catalyst for the synthesis of β -hydroxynitriles using TMSAN. **K. Wadhwa**, J. G. Verkade
- 4:00 315.** P(*i*-PrNCH₂CH₂)₃N: An efficient synthesis of β -hydroxyesters and α,β -unsaturated esters using TMSEA. **K. Wadhwa**, J. G. Verkade
- 4:20 316.** P(PhCH₂NCH₂CH₂)₃N: An efficient Lewis-base catalyst for the synthesis of propargylic alcohols via aldehyde alkylation. **K. Wadhwa**, V. R. Chintareddy, J. G. Verkade
- 4:40 317.** Microwave irradiated palladium catalyzed cross-coupling reaction of potassium allyltrifluoroborates and organic halides. **M. Al-Masum**, S. Alam

Section E

Salt Palace Convention Center
155 B

Molecular Recognition and Self-Assembly

J. M. Belitsky, *Presiding*

- 1:30 318.** Microgels as supramolecular receptors for proteins with picomolar affinity. **A. Kraft**, A. F. Tominey, J. Liese, S. Wei, K. Kowski, T. Schrader

- 1:50 319.** Modification of fluorescent squaraine rotaxane structure. **N. Fu**, B. D. Smith
- 2:10 320.** Modulated morphology in the self-assembly of radial amphiphilic oligophenylene ethynyls. **F. Garcia**, G. Fernández, **L. Sánchez**
- 2:30 321.** Molecular recognition and optical sensing of insulin by a synthetic receptor. **J. M. Chinai**, L. M. Ryno, C. Morris, A. R. Urbach
- 2:50 322.** Multitopic metal-containing resorcinarene cavitands that bind anions. **R. G. Harrison**, L. Wang, J. S. Gardner, K. Morris, M. Condon-Sheridan, J. D. Lamb
- 3:10 323.** Novel method of controlling the self-assembled monolayer (SAM) patterns by manipulating dipolar interactions. **W. Tong**, M. B. Zimmt
- 3:30 324.** Oligoquinoxiperazines as nonpeptidic helix mimetics. **P. Tosovska**, P. S. Arora
- 3:50 325.** Photosynthetic reaction center mimicry: Charge stabilization in self-assembled cofacial zinc phthalocyanine dimer – fullerene conjugates. **F. D'Souza**, **E. Maligaspe**, K. Ohkubo, M. E. Zandler, N. K. Subbayan, S. Fukuzumi
- 4:10 326.** Reversible formation of supramolecular network polymers. **D. W. Kuykendall**, S. C. Zimmerman

TUESDAY EVENING

Section A

Salt Palace Convention Center
Hall 5

Physical Organic Chemistry, Molecular Recognition, Self-Assembly and Biomolecules

A. F. Abdel-Magid, *Organizer*

8:00–10:00

- 327.** Structure-reactivity relationship for the oxidation of alcohols via hydride-transfer to 9-phenylxanthylium ion (I): Chain-alkyl and cycloalkyl alcohols. **J. Bradshaw**, W. E. Kuester, B. Moore, **Y. Lu**
- 328.** Structure-reactivity relationship for the oxidation of alcohols via hydride-transfer to 9-phenylxanthylium ion (II): Para-substituted benzyl alcohols. **Y. Zhao**, B. Moore, Y. Lu
- 329.** Efficient synthesis of an antidepressant. **P. Zhang**, T. P. Cleary
- 330.** Anion binding and fluorescence properties in a new series of phenylacetylene-based hydrogen bonding receptors. **C. N. Carroll**, O. B. Berryman, C. A. Johnson II, D. W. Johnson, M. M. Haley
- 331.** Ion pairing approaches to supramolecular catalysis. **B. W. Purse**
- 332.** First total syntheses of novel antifungal Δ^6 and $\Delta^{2,6}$ -acetylenic fatty acids. **M. M. Cartagena Rivera**, N. M. Carballeira
- 333.** Approaches to covalent crystalline solids through dihydrogen bonding. **K. Manes**, J. E. Jackson, C. Tsai
- 334.** Cage-iodination of *o*-carboranyl nucleoside analogs for the diagnosis and treatment of cancer. **R. Tiwari**, A. Toppino, Y. Byun, N. Sayfullin, T. Nguyen, M. V. Darby, W. Tjarks
- 335.** Cation-arene interaction study and channel mechanism investigation by analytical techniques. **R. Li**, G. W. Gokel
- 336.** Ceramide analogs with tunable membrane activity. **W. A. Harrell Jr.**, J. T. Davis
- 337.** Chemical degradation of Alzheimer's-related β -amyloid peptides. **M. Rubinshtein**, L. K. Habib, M. R. Bautista, M. Lee, J. Yang
- 338.** Convergent synthesis of glycopeptide mimetics of PSGL-1. **Y. Vohra**, G. J. Boons
- 339.** Design, synthesis and DNA binding properties of orthogonally positioned diamino-containing polyamides. **R. Ogilvie**, A. Plaut, C. Riddering, L. Westrate, R. Davis, A. Ferguson, S. Chavda, H. Mackay, T. Brown, D. Wilson, J. A. Hartley, **M. Lee**
- 340.** Development of a labeling probe for the discovery and identification of saccharide-binding proteins. **A. B. Kumar**, J. M. Anderson, R. Manetsch

- 341.** Development of fluorescent sensor based on cyanine dye for Hg²⁺ detection. **Y. Yang**, J. Blecha, H. Cao
- 342.** Development of novel histone deacetylase inhibitors. **G. R. Cook**, **M. Kaneko**
- 343.** Elucidating bacterial cell wall morphogenesis via covalently linked fluorescent probes. **S. D. Carmody**, M. S. VanNieuwenhze
- 344.** Energy transfer followed by electron transfer in a supramolecular boron dipyrromethane porphyrin-fullerene. **E. Maligaspe**, F. D'Souza
- 345.** Extraction of G-quadruplex ligands from disulfide-based dynamic combinatorial libraries. **M. C. Nielsen**, T. Ulven
- 346.** Fluorescent chemosensors for cyanide ion and microfluidic system. **S.-Y. Chung**, S. K. Kwon, X. Chen, S.-W. Nam, S. Park, J. Yoon
- 347.** Gelation of low molecular weight molecules with polymers for signal amplification in sensing. **T. H. Lent**, A. J. McNeil
- 348.** High substrate specificity observed in the asymmetric aldol reaction catalyzed by organocatalytic assemblies. **C.-G. Zhao**, T. Mandal, J. J. Goldman, S. Gogoi
- 349.** Highly water soluble monoboronic acid sensors for saccharides based on 4-sulfo-1,8-naphthalic anhydride. **Z. Cao**, P. Nandhikonda, M. D. Heagy
- 350.** Hydrogen-bonded spherical nanocapsules formed from self-assembly of pyrogallol[4]arenes. **O. V. Kulikov**, N. Rath, G. W. Gokel
- 351.** Withdrawn.
- 352.** Kinase-directed libraries inspired by the natural product indirubin. **L. A. Smyth**, T. P. Matthews, I. Collins
- 353.** Microwave mediated synthesis of novel hybrid molecules based on nonsteroidal anti-inflammatory drugs. **K. Mukkanti**, L. V. Reddy, M. Nakka, A. Suman, C. Srikanth, S. Pal
- 354.** Microwave-assisted activation of hyperthermophilic enzymes. **D. D. Young**, R. M. Kelly, A. Deiters
- 355.** Novel pH fluorescence sensor based on BODIPY dye. **Y. Yuan**, **M. Tian**
- 356.** Ortho-nitrobenzyl photocaging groups in the light-regulation of biological processes. **H. Lusis**, A. Deiters
- 357.** Photoactivity and molecular recognition of an azobenzene-linked dimeric calixarene. **P. A. Bonvallet**, K. L. Stoltz, P. J. Evans, E. N. Story
- 358.** Probing the electrostatic environment of oligonucleotides by IR and ¹⁵N NMR of nitrile probes. **A. T. Gillies**, E. E. Fenlon, S. H. Brewer, M. D. Watson, X. S. Gai
- 359.** Probing the steric effect of 2,6-disubstituted-4-phenylpyrimilium inclusion complexes with cucurbit[7]uril. **A. Thangavel**, C. Sotriuro-Leventis, N. Leventis
- 360.** Rapid synthesis of amphiphatic nucleopeptides and their biophysical evaluation. **C.-M. Park**, P. P. Gamer
- 361.** Rhodamine B and NBD based colorimetric and fluorescent chemosensors for metal ions. **M. Jou**, Z. Xu, X. Chen, J. Yoon
- 362.** Semitemplated collagen-like heterodimer: A potential method for tag-fused protein recognition. **N. Delsuc**, A. Ojida, I. Hamachi
- 363.** Stimuli-responsive naphthyrindines via light induced conformational changes. **C. A. Anderson**, S. C. Zimmerman
- 364.** Synthesis and properties of resorcinarene-based chiral receptors. **N. Li**, J. Wang, H. Stock, R. G. Harrison, J. D. Lamb
- 365.** Synthesis and spectroscopic studies of highly sensitive, water soluble, dual fluorescent sensors for sodium and potassium. **P. Nandhikonda**, M. D. Heagy
- 366.** Synthesis of amino acid substituted oligomeric imidazole-4,5-dicarboxamide libraries. **Z. Xu**, J. C. DiCesare, P. W. Baures
- 367.** Synthesis of macrocyclic polyamines to study their anti-HIV activity. **S. Hamal**, T. W. Bell

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368. Synthesis of quinoline derivatives as potential antiviral agents. **R. K. Sit**, T. W. Bell
369. Synthetic and natural product transmembrane bicarbonate transporters. **O. A. Okunola**, R. Quesada, P. A. Gale, J. T. Davis
370. The synthesis and characterization of 1,2,3-lactosyl triazoles and 1,2,3,5-lactosyl tetrazoles as potential inhibitors of galectin-1. **N. L. Snyder**, **B. J. Van Arman**
371. Theoretical studies of the Bergman cyclizations of a new class of "enediynes" that incorporate a nonbenzenoid aromatic ring in place of the olefin site. **E. M. Greer**, O. Lavinda
372. Toward molecular muscles: [c2]Daisy-chain dimer synthesis and incorporation into materials. **P. G. Clark**, R. H. Grubbs
373. Toward redox-active supramolecular polymers. **A. K. Miller**, Z. Li, B. T. McGrail, A. M. Jamieson, S. J. Rowan
374. Toward the design and synthesis of metal-ligand containing polymeric architectures. **R. J. Wojtecki**, B. M. McKenzie, S. J. Rowan
375. Toward unsymmetrical CADA analogs. **V. G. Demillo**, T. W. Bell
376. Understanding the role of the vancomycin glycan in binding glycosyltransferases: The design and synthesis of two novel glycan derivatives of vancomycin with the potential for combating antibiotic resistance. **N. L. Snyder**, K. Alser, G. M. Comeau, J. A. Pienkos, L. J. Rono
377. *p*-Hydroxyphenacyl photoremovable protecting group: A comparison of the base and photoactivated Favorski rearrangement. **C. Perera**, R. S. Givens
378. Analyzing "on water" effect using calorimetry studies. **A. Chanda**, J. M. Hawkins, K. B. Sharpless, V. V. Fokin
379. Aryl azo morpholines: Structure and photochemical characterization. T. Chin, J. Attard, C. Pye, F. R. Fronczek, **A. Moskun**, **R. Isovitsch**
380. Composite computational/experimental insight into the mechanism of Grignard formation in hydrocarbon media. **J. M. Teixeira**, K. W. Housley, R. W. Holman
381. Computational and spectroscopic investigation of the solvatochromic properties of methoxy substituted benzaofluorenones. **L. A. Meyers**, J. T. Wilson, S. F. Manzer, E. Middleton, T. C. Celius
382. Withdrawn
383. Computational study of the intramolecular cyclization of 5-hexenyl, 4-oxa-5-hexenyl and 3-oxa-5-hexenyl radicals. **A. R. Mattin**, M. C. Leyden
384. Counter-ion effect in the nucleophilic substitution reactions at silicon: G2M(+) level theoretical investigation. **S.-Y. Chu**, Y. Ren
385. Density functional theory in design of fatigue-resistant photochromic materials for optical switching and data storage. A. E. Masunov, **P. D. Patel**, I. A. Mikhaylov, K. D. Belfield
386. DFT study of the formation of *n*-propyl cation from *n*-propyloxonium ion: Observation of *n*-propyl cation as a reaction intermediate. **D. L. Johnson**
387. Dynamical control of intermolecular carbene reactions. **X. Y. Mo**, J. Schloss, L. Suen, S. Zaleski, D. C. Merrer
388. Generation and kinetic studies of high-valent ruthenium-oxo porphyrin intermediates. **W. Cartwright**, C. Abebrese, Y. Huang, R. Zhang
389. Hydrolysis and photolysis of 4-acetoxy-4-(benzothiazol-2-yl)-2,5-cyclohexadienone. **Y.-T. Wang**, K. J. Jin, M. Novak
390. Exploring influence of boron on the acidity of organic functional groups using DFT calculations. **S. Mehrpajouh**, A. Fattahi
391. Interaction of cytosine and its nucleosides with biological CO₃²⁻, PO₄³⁻ anions: Anion-anion clusters with negative dissociation energy. **Z. Aliakbar Tehrani**, A. Fattahi
392. Simultaneous effects of intramolecular hydrogen bonding and conjugation on the gas phase acidity of alcohols: A density functional study. **H. Iravani**, A. Fattahi

393. Investigation of the autocatalyzed photolytic decay of benzylic dialkoxy disulfides. **D. M. Rudzinski**, R. Prierer
394. Investigation of the kinetics of the *cis* to *trans* isomerization of 1,2,3-trisubstituted tetrahydro- β -carbolines: A Hammett study. **M. L. Van Linn**, J. M. Cook
395. Local environment influences on the free-radical decomposition reaction of nanoconfined phenethyl phenyl ether. **M. K. Kidder**, A. C. Buchanan III
396. Meta substituted 2,6-dimethyl-4-phenylcyclohex-3-enecarboxylic acids and their amide derivatives: A study on the interaction of enantiomers in solid state. **H. J. Stein**, S. Xie
397. Probing the effect of distal nitrogen alkylation on fluorescence enhancement of 4-ethylenediamino substituted naphthalimides by transition metal ions. **J. E. Elbert**, Y. Philippova
398. Trajectory studies of gas phase acyl transfer reactions. C. Doubleday, **S. Goldenberg**
399. Trajectory studies of reactions of oxygen atoms with CH₂F and CHFCl radicals. C. Doubleday, **N. Hakim**
400. Trajectory studies of tetramethylene dynamics. C. Doubleday, **R. Lipsky**
401. Trajectory study of the rearrangement of 6-methylenecyclo[3.2.0]hept-2-ene to 5-methylenenorbornene. C. Doubleday, C. P. Suh rada, C. Selcuki, M. Nendel, C. Cannizzaro, K. N. Houk
402. VT 1H NMR investigations of hydrogen bonding in phenolic systems. **N. M. Wachter**
403. Early events in the photochemistry of alkylaryl diazirines from ultrafast UV-vis and IR spectroscopies. **Y. Zhang**, J. Kubicki, M. S. Platz

WEDNESDAY MORNING

Section A

Salt Palace Convention Center
Combo Ballrooms B/D/F

Ernest Guenther Award in the Chemistry of Natural Products: Symposium in Honor of Peter Wipf

K. M. Brummond, *Organizer*

- 8:20 404. From furans to pyrans: A total synthesis of norhalichondrin. **A. J. Phillips**
- 9:00 405. Recent advances in the total synthesis of alkaloid natural products. **V. H. Rawal**
- 9:40 406. Monoterpene indole alkaloid biosynthesis. **S. E. O'Connor**
- 10:20 407. Microbial ecology and natural products. **J. Clardy**
- 11:00 408. **Award Address** (Ernest Guenther Award in the Chemistry of Natural Products, sponsored by Givaudan). Target-directed total synthesis and inverse design of natural products and their chimeras. **P. Wipf**

Section B

Salt Palace Convention Center
Ballrooms G&I

Ralph F. Hirschmann Award in Peptide Chemistry: Symposium in Honor of Morten P. Meldal

W. D. Lubell, *Organizer*

- 8:20 409. Hunting for biologically active peptide conformers with solid-phase techniques for making aza-, amino-lactam, diazepinone and pyrrolidiazepinone peptide mimics. **W. D. Lubell**, C. Proulx, D. Sabatino, A. Jamieson, N. Boulard, H. Iden, P. Deaudelin

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- 9:00 410. A paradigm for identifying selective peptidomimetics with integrated combinatorial technologies. **P. M. St.Hilaire**
- 9:40 411. Controlling cell fate decisions with peptides. **L. L. Kiessling**
- 10:20 412. Chemoselective peptide chemistry for nanobioscience. **K. J. Jensen**
- 11:00 413. **Award Address** (Ralph F. Hirschmann Award in Peptide Chemistry, sponsored by Merck Research Laboratories). Merging organic chemistry with peptide diversity. **M. Meldal**

Section C

Salt Palace Convention Center
155 A

Asymmetric Reactions and Syntheses

T. H. Al-Tel, *Presiding*

- 8:20 414. Catalytic enantioselective synthesis of tertiary and quaternary carbons with vinylaluminum reagents promoted by *N*-heterocyclic carbenes. **Y. Lee**, K. Akiyama, F. Gao, A. H. Hoveyda
- 8:40 415. Cationic ruthenium complexes in transfer hydrogenation. **D. Amoroso**, C. Sui-Seng, K. Abdur-Rashid, R. Guo, X. Chen, W. Jia
- 9:00 416. Cationic ruthenium hydrogenation catalysts. **C. Sui-Seng**, K. Abdur-Rashid, D. Amoroso, C. W. Tsang, R. Guo, X. Chen, W. Jia
- 9:20 417. Rational approach to polymer supported salen catalysts. **M. Weck**, C. W. Jones, N. Madhavan
- 9:40 418. Cinchona alkaloid catalyzed asymmetric Diels-Alder reaction of simple α,β -unsaturated ketones. **R. P. Singh**, K. Bartelson, Y. Wang, H. Su, X. Lu, L. Deng
- 10:00 419. Double diastereoselective, nucleophile-catalyzed, aldol lactonizations toward bicyclic β -lactones. **K. A. Morris**, K. M. Arendt, D. Romo
- 10:20 420. Enantioselective C-H oxidation using a chiral Lewis acid cocatalyst strategy. **D. J. Covell**, M. C. White
- 10:40 421. Enantioselective protonation catalyzed by a chiral bicyclic guanidine derivative. **D. Leow**, S. Lin, S. K. Chittimalla, X. Fu, C.-H. Tan
- 11:00 422. Enantioselective total synthesis of lycopodine. **H. Yang**, R. G. Carter
- 11:20 423. Mechanism of enantioselection in C-C and C-N bond formation reactions promoted by bifunctional catalysts. **I. D. Gridnev**, T. Ikariya
- 11:40 424. Mechanistic investigation of thiourea-catalyzed imine hydrocyanation leads to an improved catalytic asymmetric Strecker synthesis. **S. J. Zuend**, M. P. Coughlin, M. P. Lalonde, E. N. Jacobsen

Section D

Salt Palace Convention Center
155 D

Metal-Mediated Reactions and Syntheses

M. C. Perry, *Presiding*

- 8:00 425. Synthesis of biindolyls via palladium-catalyzed reactions. **H. A. Duong**, P. B. Huleatt, C. L. L. Chai
- 8:20 426. Coupling of vinyl aziridines and phenyl isocyanate. **K. Zhang**, P. R. Chopade, J. Louie
- 8:40 427. Arylation and alkylation of sp³ C-H bonds in carboxylic acid derivatives. **D. Shabashov**, O. Daugulis
- 9:00 428. Asymmetric hydrogenation of *N*-aryl imines. **N. Mrcic**, A. J. Minnaard, J. G. de Vries, B. L. Feringa
- 9:20 429. Fast racemization of chiral amines and alcohols using half-sandwich iridacycle catalysts and application to dynamic kinetic resolution. **T. Jerphagnon**, R. Haak, F. Berthiol, A. Gayet, B. L. Feringa, J. G. de Vries
- 9:40 430. Withdrawn
- 9:40 431. Iterative cross-metathesis and Cu-catalyzed asymmetric allylic substitution: Matched and mismatched effects. **P. Tosatti**, S. P. Marsden, A. S. Nelson, D. House, G. G. Weingarten

- 10:00 432. Metal coordinated carbocationic rearrangements: Exploring a route to functionalized vinyl cyclopentenes and vinyl cyclohexenes from bicyclic olefins. **A. K. F. Rahnan**
- 10:20 433. New metathesis catalysts highly stereoselective for macrocycle RCM reactions. **Z.-Y. J. Zhan**, D.-W. Cui, F. Chen
- 10:40 434. Development of new active ruthenium catalysts highly selective for RCM and ROMP reactions. **Z.-Y. J. Zhan**, D.-W. Cui, Y. Tuo, X.-H. Zhang
- 11:00 435. One-pot synthesis of α -carbolines via palladium catalyzed aryl amination and intramolecular Heck reaction. **J. K. Laha**, P. Petrou, G. D. Cury
- 11:20 436. Palladium-catalyzed inter/intramolecular diamination of unactivated alkenes. **P. A. Sibbald**, F. E. Michael

Section E

Salt Palace Convention Center
155 B

Molecular Recognition and Self-Assembly

B. W. Purse, *Presiding*

- 9:00 437. Stimulus responsive protein binding by DNA-small molecule chimeras. **J. Jayawickramarajah**, D. C. Harris, X. Chu
- 9:20 438. Synthesis and characterization of biomimetic nanoporous materials. **A. E. Abelow**, I. Zharov
- 9:40 439. Synthesis and evaluation of organic fluorophores based on a [2.2]paracyclophane derived from the solid state. **E. Elacqua**, L. R. MacGillivray
- 10:00 440. Tailoring the properties of supramolecular guanosine hydrogels through the use of comonomers. **L. E. Buerkle**, Z. Li, A. M. Jamieson, S. J. Rowan
- 10:20 441. Template-controlled solid-state reactions: Toward the syntheses of reactive targets for organic syntheses of molecules. **P. Kaushik**, L. R. MacGillivray
- 10:40 442. Template-directed solid-state synthesis of polyfunctional ligands predetermined for the design of metallo-supramolecular assemblies with nanosized pores or cavities. **D.-K. Bucar**, Q. Chu, P. V. Dau, S. C. Sommerfeld, C. L. Mertzenich, L. MacGillivray
- 11:00 443. Using magnetic levitation to monitor chemical reactions and to detect binding interactions on solid supports. **K. A. Mirica**, S. T. Phillips, G. M. Whitesides
- 11:20 444. Using phospholipid vesicles to replicate cellular adhesion. **S. J. Webb**, R. J. Mart, K. P. Liem

WEDNESDAY AFTERNOON

Section A

Salt Palace Convention Center
Combo Ballrooms B/D/F

Alfred Bader Award in Bioinorganic or Biorganic Chemistry: Symposium in Honor of Kevin M. Smith

K. Burgess, *Organizer*

- 2:00 445. Cellular import of proteins bearing pH probes. **K. Burgess**
- 2:40 446. Alkali complexes of dipyrins: Synthesis, properties and reactions. **A. Thompson**
- 3:20 447. Combinatorial chemistry of porphyrins. **C. M. Drain**
- 4:00 448. **Award Address** (Alfred Bader Award in Bioinorganic or Biorganic Chemistry, sponsored by Alfred R. Bader). Strange photosynthetic pigments: The chlorosome chlorophylls. **K. M. Smith**

Section B

Salt Palace Convention Center
Ballrooms G&I

ACS Award for Creative Research and Applications of Iodine Chemistry: Symposium in Honor of Gerald F. Koser

R. A. Volkmann, *Organizer*

- 1:00 449. Development of new hypervalent iodine reagents. **V. V. Zhdankin**

- 1:50 450.** New insights into synthetic applications and mechanism of iodonium ylide reactions. **R. M. Moriarty**, S. Tyagi
- 2:40 451.** Catalytic and stoichiometric reactions of hypervalent organoiodanes(III) and bromanes(III). **M. Ochiai**
- 3:30 452. Award Address** (ACS Award for Creative Research and Applications of Iodine Chemistry, sponsored by SQM S.A). The Chemistry of [Hydroxy(tosyl-oxy)iodo]benzene. **G. F. Koser**

Section C

Salt Palace Convention Center
155 A

Asymmetric Reactions and Syntheses

L. W. Castle, *Organizer*

- 1:30 453.** Highly modular *P-OP* ligands for asymmetric hydrogenation. **H. Fernández-Pérez**, I. J. Munslow, J. L. Núñez, **A. Vidal-Ferran**
- 1:50 454.** New organic chemistry of sulfur dioxide: Asymmetric total synthesis of polypropionate antibiotics. **P. Vogel**, M. Turks, K. Fairweather, S. Laclef, C. Exmer
- 2:10 455.** Polymerization of cyclooctene-supported salen catalysts using ruthenium initiators and the catalytic activity toward HKR of the resulting materials. **V. Piñón III**, M. G. C. Kahn, M. Weck
- 2:30 456.** Chiral Lewis-acid catalyzed enantioselective Nazarov cyclization reactions. **G. E. Hutson**, V. H. Rawal
- 2:50 457.** Self-assembled proline-thiourea host-guest complex catalyzed direct enantioselective aldol reactions. **A. S. Demir**, Ö. Reis, S. Eymur, B. Reis
- 3:10 458.** Synthesis and biological evaluation of monocyclic analogs of the cyclopostins and cyclophostin. **R. K. Malla**, S. Dutta, C. D. Spilling, C. M. Dupureur
- 3:30 459.** Synthesis of 12-HETE using asymmetric phase-transfer catalysis. **M. A. Christiansen**, M. B. Andrus
- 3:50 460.** Synthesis of the first enantiomerically pure phosphalkene ligand and its application in catalysis. **J. Dugal-Tessier**, G. R. Dake, D. P. Gates
- 4:10 461.** Systematically probing the effect of catalyst acidity in a hydrogen-bond-catalyzed enantioselective reaction. **K. H. Jensen**, M. S. Sigman
- 4:30 462.** Unique stereoselectivity reversal by chiral guanidine catalysts in the azo-Henry reaction. **H. M. Lovick**, F. E. Michael

Section D

Salt Palace Convention Center
155 D

Metal-Mediated Reactions and Syntheses

N. G. Bhat, *Presiding*

- 1:00 463.** Palladium-catalyzed, three-component allylation reactions. **R. E. Grote**, E. R. Jarvo
- 1:20 464.** Pd(II)-catalyzed CH bond amination at ambient temperature. **M. Guillas-Costa**, J. A. Jordan-Hore, C. C. C. Johansson, M. J. Gaunt
- 1:40 465.** *Pi*-Acidic ligands in the iron-catalyzed cross-coupling or aryl chlorides and secondary alkyl Grignards. **M. C. Perry**, A. J. Pawlak, J. J. Walkush, J. F. Chignell, T. C. Law
- 2:00 466.** Preparation of functionalized cycloheptadienes via organotin methodology. **W. A. Donaldson**, J. R. Gone, N. J. Wallock, R. K. Pandey
- 2:20 467.** Rapid injection NMR: Insights into the reactions of dimethyl cuprates with dihalides. **S. K. Cope**, C. A. Ogle, S. H. Bertz, M. D. Murphy, E. R. Bartholomew
- 2:40 468.** Recyclable ruthenium metathesis catalysts. **C. Hongfa**, H. S. Bazzi, D. E. Bergbreiter

- 3:00 469.** Selective conversion of nitrile derivatives to secondary or tertiary amines. **Y. Fujita**, E. Murakami, T. Maegawa, Y. Monguchi, H. Sajiki
- 3:20 470.** Silver-catalyzed rearrangement reactions. **M. Hamata**, **C. Huang**
- 3:40 471.** Stereoselective tandem chain extension reactions. **C. K. Zercher**
- 4:00 472.** Suzuki-Miyaura couplings of secondary unactivated chlorides with alkylboron reagents. **Z. Lu**, G. C. Fu
- 4:20 473.** Synthesis of 2,6-disubstituted piperazines by a diastereoselective palladium-catalyzed hydroamination reaction. **B. M. Cochran**, F. E. Michael
- 4:40 474.** Transition state complexation in the Pd(II)-catalyzed Cope rearrangement. **M. R. Siebert**, D. J. Tantillo
- 5:00 475.** Triazole-Au complexes: A new class of stable and active cationic Au(I) complexes. **S. Sengupta**, H. Duan, J. L. Petersen, X. Shi

WEDNESDAY EVENING

Section A

Salt Palace Convention Center
Hall 1

New Reactions, Metal-Mediated Reactions, Total Synthesis of Complex Molecules, Peptides, Proteins and Amino Acids

A. F. Abdel-Magid, *Organizer*

7:00-9:00

- 476.** Rational design of potent and novel dibenzodiazepam BACE1 inhibitors. **T. H. Al-Tel**, M. Qato, S. S. Sabri
- 477.** Studies toward the synthesis of spiroisoxazolines. **E. D. Ellis**, A. T. Hamme II
- 478.** Catalytic diastereoselective [3,3]-sigmatropic rearrangements via combined acid tandem catalysis. **D. A. A. Wilton**, M. J. Gaunt
- 479.** Direct enantioselective organocatalytic oxidative dearomatization. **R. D. M. Pace**, M. J. Gaunt
- 480.** Catalysis of 6 π electrocyclizations. **L. M. Bishop**, J. E. Barbarow, R. G. Bergman, D. Trauner
- 481.** A highly active catalyst system for the enantioselective cyanation of imines under ambient conditions. **A. M. Seayad**, B. Ramalingam, C. L. Chai, K. Yoshinaga, T. Nagata
- 482.** A new steroid construction method illustrated by the enantioselective total synthesis of estrone. **V. Foucher**, B. Guizzardi, B. Linclau
- 483.** Exploring the synthesis and characterization of an amine modified basic support for the nitroaldol reaction. **R. M. Hurley**, A. J. Hammers, J. L. Duffy-Matzner
- 484.** Cross-coupling reaction of aryltrifluoroborate salts and 5-iodoone. **H. A. Stefani**, M. F. Z. J. Amaral
- 485.** Palladium-catalyzed Suzuki-Miyaura reactions of potassium aryltrifluoroborates with 5-iodo-1,3-dioxin-4-ones. **A. S. Vieira**, **H. A. Stefani**
- 486.** Θ -defensin mimic prepared from γ -peptide nucleic acid scaffold exhibits potent antimicrobial activities. **S. Rapireddy**, **R. E. Meehan**, D. H. Ly
- 487.** A facile reaction of (Z)-1-bromo-1-alkenylboronate esters with (1,3-dioxan-2-ylethyl)magnesium bromide and oxidation to β -keto cycloacetals. **N. G. Bhat**, Z. Dalu, R. Nieto
- 488.** A new synthetic pathway for angular triquinane natural products. **E-H. Kim**, A. J. Pearson
- 489.** A simple procedure for the preparation of (Z)-1-trimethylgermyl-1-alkenes. **N. G. Bhat**, M. Renteria

Photographing or recording meeting sessions and/or activities other than your own are prohibited at all official ACS events without written consent from ACS.

- 490.** Applications of Poly(vinyl alcohol)-graft-poly(ethylene glycol) resins in amino acid and peptide chemistry. **T. Kassem**, J. Luo, D. Sabatino, X. Jia, X. X. Zhu, **W. D. Lubell**
- 491.** Base-catalyzed Diels-Alder approach toward basiloidide B. **C-S. Lee**, X. Zhou, W. Wu, X. Liu
- 492.** Cascade synthesis of (E)-2-alkylidene-cyclobutanols. **J. Falck**, A. Bandhopadhyay, **N. Pulli**, A. Kundu, L. Manmohan Reddy, D. K. Barma, A. He, H. Zhang, R. Baati
- 493.** Copper-catalyzed cross-coupling of C-H bonds. **H. Q. Do**, O. Daugulis
- 494.** Copper-catalyzed diboration of ketones: Facile synthesis of tertiary alpha-hydroxy ketones. **M. M. McIntosh**, C. M. Moore, T. B. Clark
- 495.** Cyclohexene derivatives in transfer hydrogenation. **N. J. Craft**, D. G. Kovacs
- 496.** Efficient removal of metal-based catalysts using SiliaBond DMT. **L. Tremblay**, S. Potvin, G. Gingras, F. Béland
- 497.** Efforts toward the total synthesis of secologanin derived natural products. **B. J. English**, R. M. Williams
- 498.** Efforts toward the synthesis of brevenal. **J. Zhou**, K. Iyer, J. Rohanna, H. W. B. Johnson, J. D. Rainier
- 499.** Enolate driven copper-mediated intramolecular cross-coupling strategies for the asymmetric total synthesis of antimalarial, antileishmanial and antimicrobial alkaloids and unnatural agents. **M. S. Kabir**, C. R. Edwankar, R. V. Edwankar, J. Yang, H. D. Jain, S. Ara, A. P. Monte, J. M. Cook
- 500.** Expanding the scope of the Wacker oxidation: Oxidation of protected allylic alcohols. **B. W. Michel**, M. S. Sigman
- 501.** Expedient preparations of 4,6-dihalo-3-arylisobenzofuran-1(3H)-ones from 3,5-dihalo-N-ethylbenzamidines. **C. Collins**, E. Tabakin, L. M. Bradley, D. A. Hunt
- 502.** Further investigations into microwave assisted solid phase peptide synthesis. **G. S. Vanier**, S. K. Singh, A. D. Douglas, E. Williamson
- 503.** Glycol metallanitrenes for 2-amino sugar synthesis. **S. Buttar**, S. Chowdhury, J. Gillman, E. Goné, R. Harris, C. M. Rojas
- 504.** Halogenation of 1,3-thiazole derivatives with copper halides. **F. Simeon**, M. Wendahl, V. W. Pike
- 505.** Highly diastereoselective synthesis of (E)-1-alkenylboronate esters containing a phenyl moiety. **N. G. Bhat**, N. Hinojosa
- 506.** Increasing efficiency in ruthenium olefin metathesis. **K. M. Kuhn**, J-B. Bourg, C. K. Chung, S. C. Virgil, R. H. Grubbs
- 507.** Intramolecular iron-mediated diene/olefin cycloaddition to form all-carbon spirocycles. **A. J. Pearson**, **M. A. Deslandes**
- 508.** Mechanistic investigation of a copper free aerobic Wacker oxidation. **B. J. Anderson**, M. S. Sigman
- 509.** New economical, scalable amphiphatic resins for peptide synthesis. **P. A. Boguszewski**, A. F. Coffey, J. W. Davies, G. Margettes, P. A. Marsh
- 510.** Nickel catalyzed cycloaddition reactions of enynes and isocyanates. **B. R. D'Souza**, J. Louie
- 511.** Novel copper and amine free sonogashira coupling in the alkylation of 2'-deoxyadenosine. **B. E. Haines**, E. Lindsey, F. N. Ngassa
- 512.** Novel diastereoselective synthesis of (Z)-disubstituted alkenes containing a (1,3-dioxan-2-ylethyl) moiety. **N. G. Bhat**, C. Flores, L. Zuniga
- 513.** Progress toward a total synthesis of marcorfotine A. **M. J. Buller**, Y. Kobayashi
- 514.** Progress toward the total synthesis of the α -adrenergic blocking agent disepagrine as well as the first enantioselective total synthesis of lochnerine, (+)-16-episarpagine and lochnerine. **C. R. Edwankar**, R. V. Edwankar, X. Liao, J. M. Cook
- 515.** Progress toward the total synthesis of dicyclopent[a,f]pentalene. **G. O. Fonseca**, J. M. Cook
- 516.** Progress toward the total synthesis of N₂-demethylalstophylline oxindole alkaloid. **G. O. Fonseca**, J. M. Cook
- 517.** Progress toward the total synthesis of the sarpagine related alkaloids amervoline and ervincidine. **S. K. Rallapalli**, J. M. Cook

- 518.** Pummerer reaction as the key step in stereoselective synthesis of D-ribo-(2S,3S,4R)-phytosphingosine. **M. A. Rasheed**, R. Nirogi, S. Raghavan
- 519.** Pyrazole synthesis using a titanium-catalyzed multicomponent coupling reaction and total synthesis of Withasominine. **S. Majumder**, K. R. Gipsen, R. J. staples, A. L. Odom
- 520.** Selective iridium-catalyzed cyclopropanol ring opening: Synthesis of α -methyl ketones. **D. T. Ziegler**, T. W. Funk
- 521.** Solution state structures of potassium bis(trimethylsilyl)amide (KHMDS) and their relative reactivity. **G. L. Kagan**, D. Li, P. G. Williard
- 522.** Stabilization of heterogeneous epoxidation catalysts. **A. W. Jensen**, D. K. Mohanty, E. locca
- 523.** Studies on the total synthesis of the lituanines. **C. North**, J. Robertson
- 524.** Studies toward the total synthesis of amphinolide C. **M. Fultz**, R. De, M. McCoy, **A. I. Morales-Ramos**, D. R. Williams
- 525.** Studies toward the synthesis and structure determination of Guadinomine B/NA22598A1. **V. R. Bhone**, R. E. Looper
- 526.** Synthesis and applications of chiral corroles. **C. Kim**, J. de Mata, J. Abernathy, J. E. Jones, X. P. Zhang
- 527.** Synthesis and characterization of novel trinitraphylamines by the Buchwald-Hartwig amination reaction. **C. E. Wagner**, J. W. Hart, A. Danishejy
- 528.** Synthesis of novel idoacetamide derivatives for proteomics research. **M. G. Jessico**, P. W. Ondachi, D. L. Comins, D. C. Muddiman
- 529.** Synthetic efforts toward amicitin: Tandem C-N bond formation for the construction of the N1-C18 fragment. **C. M. Serrano**, D. Ito, R. E. Looper
- 530.** Synthetic studies toward amphinolide C. **S. Mahapatra**, R. G. Carter
- 531.** The first enantioselective total synthesis of *Alstonia* indole alkaloid perakine as well as progress toward the total synthesis of secotacarpine and macrocarpine B. **R. V. Edwankar**, C. R. Edwankar, J. M. Cook
- 532.** Total synthesis of hemibrevetoxin B and its bisbenzyl analogs. **J. Liu**, J. D. Rainier
- 533.** Toward the synthesis of 9-methyl-1-azatriptocene via palladium-catalyzed reactions. **E. R. C. Andaya**, T. W. Bell
- 534.** Toward the total synthesis of the Kapa-kahines. **V. Espejo**, J. D. Rainier
- 535.** [2+2] Cycloaddition reactions between diynes and ketenes. **R. Cella**, P. Kumar, D. M. Troast, J. Louie
- 536.** Phosphorylation of alcohols: New methods and reagents. **B. R. Sculimbrene**, P. B. Brady, E. M. Morris, O. S. Fontenot
- 537.** Practical method for PCBs degradation using Pd/C-H₂-Mg system. **A. Ido**, S. Ishihara, R. Kobayashi, A. Kume, T. Maegawa, Y. Monguchi, S. Wada, H. Sajiki, H. Nagase
- 538.** Preparation of chiral sulfur reagents for enantioselective epoxidations. **I. Boyd**, **B. Riley**, J. A. Hansen
- 539.** Production of 5-hydroxymethylfurfural from carbohydrates in switchable solvent systems. **B. R. Caes**, J. B. Binder, R. T. Raines
- 540.** Simultaneous arming and SAR studies of natural products involving OH insertions: An expedient and versatile strategy for natural products-based chemical genetics. **S. Chamm**, C-Y. Zhou, X. Lai, D. Romo
- 541.** Sterecontrolled α -sulfenylated ketone synthesis by thiol ester- α -(thiocarbonyl)alkylstannane cross-coupling. **H. Li**, L. S. Liebeskind
- 542.** Stereoselective epoxidation of acyclic homoallylic alcohols using VO(acac)₂ under microwave irradiation: Synthetic applications to polypropionate synthesis. **R. R. Rodriguez**, G. Torres, J. A. Prieto
- 543.** Stereoselective one-pot synthesis of vinyl furfures using α -substituted fluoro(phenylsulfonyl)methane derivatives. **G. K. S. Prakash**, S. Chacko, **H. Vaghoo**, T. Mathew, G. A. Olah
- 544.** Study on the preparation of HDL. **L. Zhao**, J. Wang Sr., D. Cao Sr.

‡ Cooperative Cosponsorship

545. Superior reductive amination with silica-gel bound CNBH₂ (Si-CBH).
B. L. Sumbler, P. N. Grenga, R. Priefer
546. Synthesis of allenes and amines from propargyl boron derivatives. **N. A. Petasis, C. Arden**
547. Synthesis of N, N-di(2-aminoethyl)-1,3-propylenediamine. **X. Zhang, W. Wu**
548. Synthesis of substituted 2,6-dioxabicyclo[3.2.1]octane ring systems using a Payne rearrangement-cascade epoxide opening approach.
R. A. Kowtoniuk, T. W. Funk
549. Synthesis of vinylfluorides via Julia-Kocienski reaction. **G. K. S. Prakash, A. Shakhmin, M. Zibinsky, S. Chacko, I. Ledneczki, G. A. Olah**
550. Two directional olefinic-ester ring-closing metathesis using reduced Ti alkylidenes: A rapid entry into polycyclic ether skeletons.
Y. Zhang, J. D. Rainier
551. Utilization of polydimethylsiloxane membranes for the site-isolation and recycling of PdCl₂ and one-pot cascade reactions.
A. L. Miller II, N. B. Bowden
552. Vanadium-catalyzed oxidative bromination reaction under atmospheric oxygen.
K. Kikushima, T. Moriuchi, T. Hirao
553. P(PhCH₂NCH₂CH₂)₃N: A highly effective Lewis-base catalyst for Mukaiyama aldol reactions of aliphatic, aromatic and heterocyclic aldehydes, and a trifluoromethyl ketone.
V. R. Chintareddy, K. Wadhwa, J. G. Verkade
554. Palladium catalyzed intermolecular hydroamination of η-protected anilines with π-electron-rich vinyl ethers.
N. K. Pahadi, J. A. Tunge
555. Palladium-catalyzed oxidative difunctionalization of terminal alkenes using organostannanes.
K. B. Urkalan, M. S. Sigman
556. Pd-catalyzed hydroarylation of terminal 1,3-dienes.
L. Liao, M. S. Sigman
557. Pd-catalyzed hydrofunctionalizations of styrenes and dienes.
S. M. Podhajsky, K. M. Gligorich, S. A. Cummings, Y. Iwai, M. S. Sigman
558. A direct and practical synthesis of phenyl esters from phenol and carboxylic acids under clean chemistry conditions.
K. Mukkanti, K. Kankanala, V. R. Reddy, S. Pal
559. A "one-pot" process for the preparation of trans-n-benzyl-3-hydroxy-4-hydroxymethylpyrrolidine.
P. Zhang, M. Cedilote, T. P. Cleary
560. Bouveault-Blanc reduction using stabilized alkali metals: An alternative method for ester reduction.
B. S. Bodnar, P. F. Vogt
561. Convergent epoxide based approaches for the synthesis of the C15-C25 bafilomycin A1 polypropionate chain.
E. M. Valentin-Nevárez, M. Mulero, K. Rosa-Pérez, J. A. Prieto
562. Copper-promoted diastereoselective intramolecular aminooxygenation of alkenes.
M. C. Paderes, S. R. Chemler
563. Diastereoselective reductive aminations of α-fluoroketones.
W. R. Hess, J. Janke, T. A. Davis
564. Dihydropyran formation by a two step process.
Z. Wright, L. McNulty
565. Divergent reactivity in tandem reduction-Michael ring closures of five- and six-membered cyclic enones.
R. A. Bunce, B. Nammalwar
566. Enantioselective palladium-catalyzed difunctionalization of alkenes containing an o-phenol.
K. H. Jensen, T. P. Pathak, M. S. Sigman
567. Epoxide based approach for the elaboration of a syn,anti,syn precursor fragment for the synthesis of the scytopyhcin C polypropionate chain.
J. Rentas-Torres, J. A. Prieto
568. Expanding the scope of sulfonium ylide [3,3] sigmatropic rearrangements.
V. V. Boyarskikh, G. Glover, A. Nyong, J. D. Rainier
569. Extending the scope of the tethered aminohydroxylation.
C. K. A. Callens, T. J. Donohoe
570. Flow chemistry methods for the synthesis chemokine receptor ligands.
T. P. Petersen, A. Ritzén, T. Ulven
571. Highly efficient selective monohydrolysis of dialkyl malonates.
S. Niwayama, H. Cho

572. Hydrogen gas-free Pd/C-catalyzed PCB degradation.
S. Ishihara, A. Ido, T. Maegawa, Y. Monguchi, S. Wada, H. Nagase, H. Sajiki
573. Hypervalent iodine compounds as oxidants in phthalocyanine catalyzed oxidations of anthracene.
I. M. Geraskin, O. Pavlova, V. N. Nemykin, V. V. Zhdankin
574. Isolation, handling, and properties of neat allylic fluorides.
E. Lee, D. V. Yandulov
575. Methods for the preparation of 2-aryl/vinyl methyl ethers.
K. R. Davis, D. A. Hunt
576. Microwave-assisted aza-Cope rearrangement—Mannich cyclization of conformationally mobile amino alcohols: Challenges in the stereoselective synthesis of acylpyrrolidines.
A. M. Kaufmann, H. A. Lindsay
577. Microwave-assisted deprotection of Boc-protected amines and amino acid derivatives using solid phase supported sulfonic acids in a catch-release manner.
R. Lundin, P. Ioannidis, M. Ostby
578. Modularly designed organocatalytic assemblies for nitro-Michael addition reactions.
T. Mandal, S. Muramulla, C-G. Zhao
579. N-heterocycle carbenes (NHC) as organocatalysts in biodiesel synthesis.
H. Palencia, C. Ritchie
580. New applications of the allylic diazene rearrangement.
M. L. Shrestha, W. Qi, M. C. McIntosh
581. New method for synthesis of fluorinated α-aminophosphonates with gallium triflate as catalyst.
G. K. S. Prakash, R. Ismail, M. Zibinsky, T. Mathew
582. Olefinic-lactone cyclizations to macrocycles.
J. Rohanna, J. D. Rainier
583. One-pot, unsymmetric Cadiot-Chodkiewicz reaction utilizing an in situ ethynyl-silane deprotection.
L. R. Cullen, J. C. Furgal, J. B. Gianino, A. M. Hamlin, J. W. Lezotte, M. J. Mio
584. Organocatalytic asymmetric synthesis of α-hydroxyphosphinates.
C-G. Zhao, S. Samanta, S. Perera
585. Orthogonal silane protecting group methods for modified Sonogashira couplings.
G. M. Ambrosi, M. L. Bugeja, D. J. Dumais, S. Martinez, A. Ward, M. J. Mio

PETR

Division of Petroleum Chemistry

K. Fjare, Program Chair

OTHER SYMPOSIA OF INTEREST:

Alternative Hydrocarbons: Tar Sands, Oil Shale, and Heavy Oil: Production, Processing, and Chemistry (see *FUEL*, Sun)

Catalysis for Cellulosic Feedstock Conversion (see *CATL (probationary)*, Mon)

George A. Olah Award in Hydrocarbon or Petroleum Chemistry: Symposium in Honor of Cynthia M. Friend (see *CATL (probationary)*, Tue, Wed)

Nanotechnology in Catalysis VI (see *CATL (probationary)*, Sun, Mon, Tue, Wed)

SOCIAL EVENTS:
Joint PETR/FUEL Dinner: Tue
Symposium Organizer Breakfast: Mon

BUSINESS MEETINGS:
Business Meeting: Tue
Executive Committee Meeting: Sat
Program Committee Meeting: Sat

SUNDAY MORNING

Section A

Hilton
Salon III

Refining and Petrochemicals Using Renewable Feedstocks Transforming Oil Refining into Biorefining
Cosponsored by CATL (probationary)

B. H. Shanks, K. Fjare, and C. Zhang, Organizers

10:00 Introductory Remarks.

10:10 1. Catalytic activation and conversion of biomass. **P. O'Connor**

11:00 Intermission.

11:15 2. Biogasoline production from catalytic cracking of vegetable oil in a biorefinery. **S. Bhatia, Y. K. Ong**

11:40 3. Next generation hydrocarbon biorefineries. **J. R. Regalbuto**

Alternative Hydrocarbons: Tar Sands, Oil Shale, and Heavy Oil: Production, Processing, and Chemistry Sponsored by FUEL, Cosponsored by PETR[†]

SUNDAY AFTERNOON

Section A

Hilton
Salon III

Refining and Petrochemicals Using Renewable Feedstocks New Platform Chemicals and Chemical Building Blocks for Petrochemicals
Cosponsored by CATL (probationary)

B. H. Shanks, K. Fjare, and C. Zhang, Organizers

1:30 Introductory Remarks.

1:40 4. Changes in the energy market and their impact on the chemical industry.

B. R. Maughon

2:30 5. Production of monofunctional hydrocarbons from biomass derived carbohydrates via catalytic conversion on carbon supported platinum-rhenium.

D. A. Simonetti, E. L. Kunkes, R. M. West, J. C. Serrano-Ruiz, C. A. Gartner, J. A. Dumesic

2:55 Intermission.

3:10 6. Recent developments in the conversion of biomass to renewable fuels and chemicals. **L. Manzer**

4:00 7. Withdrawn.

Alternative Hydrocarbons: Tar Sands, Oil Shale, and Heavy Oil: Production, Processing, and Chemistry Sponsored by FUEL, Cosponsored by PETR[†]

Nanotechnology in Catalysis VI Sponsored by CATL (probationary), Cosponsored by COLL, FUEL, I&EC, PETR, and NANO

MONDAY MORNING

Section A

Hilton
Salon III

Feedstock Allocation in Petroleum Refineries

C. S. Hsu and P. Robinson, Organizers

9:00 8. Allocation of nonconventional feedstocks in petroleum refineries: Overview. **P. Robinson**

9:25 9. Biofuels in China. **X. Hu, H. Sun, X. Fu**

10:10 Intermission.

10:25 10. Compositional analysis of heavy conventional crude oils: The definition of asphaltenes and maltenes by high resolution mass spectrometry. **R. P. Rodgers, A. M. McKenna, A. G. Marshall**

10:50 11. Separation and analysis of basic and nonbasic nitrogen compounds in vacuum gasoline. **H. Dulot, N. Charon-Revellin, C. Lopez-Garcia, J. Jose**

11:15 12. Characterization of basic nitrogen in heavy petroleum by microelectrospray 9.4T Fourier transform ion cyclotron resonance mass spectrometry. **Y. Liu, Q. Hu, Z. Liu, X. Zhu, S. Tian**

Nanotechnology in Catalysis VI Sponsored by CATL (probationary), Cosponsored by COLL, FUEL, I&EC, PETR, and NANO

MONDAY AFTERNOON

Section A

Hilton
Salon III

Feedstock Allocation in Petroleum Refineries

P. Robinson and C. S. Hsu, Organizers

2:00 Introductory Remarks.

2:10 13. VSEP membrane filtration for Canadian crudes. **M. Galimberti**

2:35 14. Molecular reconstruction of vacuum residues. **J. J. Verstraete, H. Dulot, D. Hudebine**

3:00 15. Gas chromatography for molecular mass determination of petroleum distillates. **L. Carbonegnani, T. Oldenburg, L. Diaz Gomez, S. Larter, P. Pereira-Almao**

3:25 Intermission.

3:40 16. Quantitative analysis and structural characterization of petroleum pitches. **S. U. Kulkarni, M. C. Thies**

4:05 17. Comparative compositional analysis of untreated and hydrotreated oil by GC field ionization time-of-flight high resolution mass spectrometry. **X. Zhu, C. Li, Z. Liu, Y. Liu, S. Tian**

Catalysis for Cellulosic Feedstock Conversion Sponsored by CATL (probationary), Cosponsored by CELL, COLL, FUEL, I&EC, and PETR

Nanotechnology in Catalysis VI Sponsored by CATL (probationary), Cosponsored by COLL, FUEL, I&EC, PETR, and NANO

MONDAY EVENING

Sci-Mix Sponsored by CATL (probationary), Cosponsored by COLL, FUEL, I&EC, and PETR

TUESDAY MORNING

Section A

Hilton
Salon III

Chemistry of Petroleum and Emerging Technologies Sulfur Poisoning and Advances in Sulfur Removal Technologies

K. Fjare, Organizer

9:00 Introductory Remarks.

9:10 18. Synthesis and characterization of nanosized hydrodesulfurization (HDS) catalyst. **D. Mahajan, M. Anjom, I. Dovgani**

9:35 19. Impact of sulfur poisoning on the carbon deposition over Rh and Ni catalysts in steam reforming of liquid hydrocarbons. **C. Xie, Y. Chen, Y. Li, X. Wang, C. Song**

The official technical program for the 237th National Meeting is available online at oasys2.confex.com/acs/237nm/techprogram/.