

- (1) Siedle, A. R.; Losovyj, Y.; Karty, J. A.; Chen, D.; Chatterjee, K.; Carta, V.; Stein, B. D.; Werner-Zwanziger, U. C–F Bond Activation in the Solid State: Functionalization of Carbon through Reactions of Graphite Fluoride with Amines. *The Journal of Physical Chemistry C* **2021**, *125* (19), 10326–10333. <https://doi.org/10.1021/acs.jpcc.1c00734>.
- (2) Coral, J. A.; Heaps, S.; Glaholt, S. P.; Karty, J. A.; Jacobson, S. C.; Shaw, J. R.; Bondesson, M. Arsenic Exposure Induces a Bimodal Toxicity Response in Zebrafish. *Environmental Pollution* **2021**, *117637*. <https://doi.org/10.1016/j.envpol.2021.117637>.
- (3) Carriguee, L. A.; Frick, J. P.; Karty, J. A.; Gareczak, L.; Partensky, F.; Schluchter, W. M. MpeV Is a Lyase Isomerase That Ligates a Doubly Linked Phycourobilin on the β -Subunit of Phycoerythrin I and II in Marine Synechococcus. *Journal of Biological Chemistry* **2021**, *296*, 100031. <https://doi.org/10.1074/jbc.ra120.015289>.
- (4) Shilling, A. M.; Colcord, D. E.; Karty, J.; Hansen, A.; Freeman, K. H.; Njau, J. K.; Stanistreet, I. G.; Stollhofen, H.; Schick, K. D.; Toth, N.; Brassell, S. C. Biogeochemical Evidence from OGCP Core 2A Sediments for Environmental Changes Preceding Deposition of Tuff IB and Climatic Transitions in Upper Bed I of the Olduvai Basin. *Palaeogeography, Palaeoclimatology, Palaeoecology* **2020**, *555*, 109824. <https://doi.org/10.1016/j.palaeo.2020.109824>.
- (5) Nguyen, A. A.; Joseph, K. L.; Bussell, A. N.; Pokhrel, S.; Karty, J. A.; Kronfel, C. M.; Kehoe, D. M.; Schluchter, W. M. CpeT Is the Phycoerythrobilin Lyase for Cys-165 on β -Phycoerythrin from Fremyella Diplosiphon and the Chaperone-like Protein CpeZ Greatly Improves Its Activity. *Biochimica et Biophysica Acta - Bioenergetics* **2020**, *1861* (12), 148284. <https://doi.org/10.1016/j.bbabiobio.2020.148284>.
- (6) Mahmoudzadeh, N. H.; Fitt, A. J.; Schwab, D. B.; Martenis, W. E.; Nease, L. M.; Owings, C. G.; Brinkley, G. J.; Li, H.; Karty, J. A.; Sudarshan, S.; Hardy, R. W.; Moczek, A. P.; Picard, C. J.; Tennessen, J. M. The Oncometabolite L-2-Hydroxyglutarate Is a Common Product of Dipteran Larval Development. *Insect Biochemistry and Molecular Biology* **2020**, *127*, 103493. <https://doi.org/10.1016/j.ibmb.2020.103493>.
- (7) Hosseini, S.; Thapa, B.; Medeiros, M. J.; Pasciak, E. M.; Pence, M. A.; Twum, E. B.; Karty, J. A.; Gao, X.; Mubarak, M. S.; Raghavachari, K.; Peters, D. G. Electrosynthesis of a Biaurone by Controlled Dimerization of Flavone: Mechanistic Insight and Large-Scale Application. *The Journal of Organic Chemistry*, **2020**, *85*, acs.joc.0c01220. <https://doi.org/10.1021/acs.joc.0c01220>.
- (8) Carriguee, L. A.; Mahmoud, R. M.; Sanfilippo, J. E.; Frick, J. P.; Strnat, J. A.; Karty, J. A.; Chen, B.; Kehoe, D. M.; Schluchter, W. M. CpeY Is a Phycoerythrobilin Lyase for Cysteine 82 of the Phycoerythrin I α -Subunit in Marine Synechococcus. *Biochimica et Biophysica Acta (BBA) - Bioenergetics* **2020**, *1861* (8), 148215. <https://doi.org/10.1016/j.bbabiobio.2020.148215>.
- (9) Wang, J.; Lonergan, Z. R.; Gonzalez-Gutierrez, G.; Nairn, B. L.; Maxwell, C. N.; Zhang, Y.; Andreini, C.; Karty, J. A.; Chazin, W. J.; Trinidad, J. C.; Skaar, E. P.; Giedroc, D. P. Multi-Metal

- Restriction by Calprotectin Impacts De Novo Flavin Biosynthesis in *Acinetobacter baumannii*. *Cell Chemical Biology* **2019**, *26* (5), 745–755.e7. <https://doi.org/10.1016/j.chembiol.2019.02.011>.
- (10) Shilling, A. M.; Colcord, D. E.; Karty, J.; Hansen, A.; Freeman, K. H.; Njau, J. K.; Stanistreet, I. G.; Stollhofen, H.; Schick, K. D.; Toth, N.; Brassell, S. C. Biogeochemical Evidence for Environmental Changes of Pleistocene Lake Olduvai during the Transitional Sequence of OGCP Core 2A That Encompasses Tuff IB (~ 1.848 Ma). *Palaeogeography, Palaeoclimatology, Palaeoecology* **2019**, *532*, 109267. <https://doi.org/10.1016/j.palaeo.2019.109267>.
- (11) Schindel, H. S.; Karty, J. A.; McKinlay, J. B.; Bauer, C. E. Characterization of a Glycyl Radical Enzyme Bacterial Microcompartment Pathway in *Rhodobacter capsulatus*. *Journal of Bacteriology* **2019**, *201* (5), e00343-18. <https://doi.org/10.1128/JB.00343-18>.
- (12) Sanfilippo, J. E.; Nguyen, A. A.; Garczarek, L.; Karty, J. A.; Pokhrel, S.; Strnat, J. A.; Partensky, F.; Schluchter, W. M.; Kehoe, D. M. Interplay between Differentially Expressed Enzymes Contributes to Light Color Acclimation in Marine *Synechococcus*. *Proceedings of the National Academy of Sciences* **2019**, *116* (13), 6457–6462. <https://doi.org/10.1073/pnas.1810491116>.
- (13) Li, H.; Rai, M.; Buddika, K.; Sterrett, M. C.; Luhur, A.; Mahmoudzadeh, N. H.; Julick, C. R.; Pletcher, R. C.; Chawla, G.; Gosney, C. J.; Burton, A. K.; Karty, J. A.; Montooth, K. L.; Sokol, N. S.; Tennessen, J. M. Lactate Dehydrogenase and Glycerol-3-Phosphate Dehydrogenase Cooperatively Regulate Growth and Carbohydrate Metabolism during *Drosophila melanogaster* Larval Development. *Development (Cambridge)* **2019**, *146* (17), dev175315. <https://doi.org/10.1242/dev.175315>.
- (14) Kronfel, C. M.; Hernandez, C. V.; Frick, J. P.; Hernandez, L. S.; Gutu, A.; Karty, J. A.; Boutaghou, M. N.; Kehoe, D. M.; Cole, R. B.; Schluchter, W. M. CpeF Is the Bilin Lyase That Ligates the Doubly Linked Phycoerythrobilin on -Phycoerythrin in the Cyanobacterium *Fremyella diplosiphon*. *Journal of Biological Chemistry* **2019**, *294* (11), 3987–3999. <https://doi.org/10.1074/jbc.RA118.007221>.
- (15) Kronfel, C. M.; Biswas, A.; Frick, J. P.; Gutu, A.; Blensdorf, T.; Karty, J. A.; Kehoe, D. M.; Schluchter, W. M. The Roles of the Chaperone-like Protein CpeZ and the Phycoerythrobilin Lyase CpeY in Phycoerythrin Biogenesis. *Biochimica et Biophysica Acta - Bioenergetics* **2019**, *1860* (7), 549–561. <https://doi.org/10.1016/j.bbabiobio.2019.06.001>.
- (16) Uchida, M.; McCoy, K.; Fukuto, M.; Yang, L.; Yoshimura, H.; Miettinen, H. M.; LaFrance, B.; Patterson, D. P.; Schwarz, B.; Karty, J. A.; Prevelige, P. E.; Lee, B.; Douglas, T. Modular Self-Assembly of Protein Cage Lattices for Multistep Catalysis. *ACS Nano*, **2018**, *12*, 942–953. <https://doi.org/10.1021/acsnano.7b06049>.
- (17) Howard, B.; Mufson, S.; Whittington, D.; Adams, B.; Baugh, B.; Jordan, J. R.; Karty, J.; Macias, C. T.; Pla-Dalmau, A. A Novel Use of Light Guides and Wavelength Shifting Plates for the Detection of Scintillation Photons in Large Liquid Argon Detectors. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* **2018**, *907*, 9–21. <https://doi.org/10.1016/j.nima.2018.06.050>.

- (18) Fatila, E. M.; Pink, M.; Twum, E. B.; Karty, J. A.; Flood, A. H. Phosphate-Phosphate Oligomerization Drives Higher Order Co-Assemblies with Stacks of Cyanostar Macrocycles. *Chemical Science* **2018**, *9* (11), 2863–2872. <https://doi.org/10.1039/c7sc05290a>.
- (19) Cui, Y.; Ackerson, J. D.; Ma, Y.; Bhargav, A.; Karty, J. A.; Guo, W.; Zhu, L.; Fu, Y. Phenyl Selenosulfides as Cathode Materials for Rechargeable Lithium Batteries. *Advanced Functional Materials* **2018**, *28* (31), 1801791. <https://doi.org/10.1002/adfm.201801791>.
- (20) Bhargav, A.; Bell, M. E.; Karty, J.; Cui, Y.; Fu, Y. A Class of Organopolysulfides As Liquid Cathode Materials for High-Energy-Density Lithium Batteries. *ACS Applied Materials & Interfaces* **2018**, *10* (25), 21084–21090. <https://doi.org/10.1021/acsmi.8b06803>.
- (21) Behringer, M. G.; Choi, B. I.; Miller, S. F.; Doak, T. G.; Karty, J. A.; Guo, W.; Lynch, M. Escherichia Coli Cultures Maintain Stable Subpopulation Structure during Long-Term Evolution. *Proceedings of the National Academy of Sciences of the United States of America* **2018**, *115* (20), E4642–E4650. <https://doi.org/10.1073/pnas.1708371115>.
- (22) St. Clair, S. L.; Li, H.; Ashraf, U.; Karty, J. A.; Tennessen, J. M. Metabolomic Analysis Reveals That the Drosophila Melanogaster Gene Lysine Influences Diverse Aspects of Metabolism. *Genetics*, **2017**, *207*, 1255–1261. <https://doi.org/10.1534/genetics.117.300201>.
- (23) Snyder, C. M.; Zhou, X.; Karty, J. A.; Fonslow, B. R.; Novotny, M. V.; Jacobson, S. C. Capillary Electrophoresis–Mass Spectrometry for Direct Structural Identification of Serum N-Glycans. *Journal of Chromatography A*, **2017**, *1523*, 127–139. <https://doi.org/10.1016/j.chroma.2017.09.009>.
- (24) Saha-Shah, A.; Karty, J. A.; Baker, L. A. Local Collection, Reaction and Analysis with Theta Pipette Emitters. *Analyst*, **2017**, *142*, 1512–1518. <https://doi.org/10.1039/c7an00109f>.
- (25) Li, H.; Chawla, G.; Hurlburt, A. J.; Sterrett, M. C.; Zaslaver, O.; Cox, J.; Karty, J. A.; Rosebrock, A. P.; Caudy, A. A.; Tennessen, J. M. Drosophila Larvae Synthesize the Putative Oncometabolite L-2-Hydroxyglutarate during Normal Developmental Growth. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, *114*, 1353–1358. <https://doi.org/10.1073/pnas.1614102114>.
- (26) Fatila, E. M.; Twum, E. B.; Karty, J. A.; Flood, A. H. Ion Pairing and Co-Facial Stacking Drive High-Fidelity Bisulfate Assembly with Cyanostar Macroyclic Hosts. *Chemistry - A European Journal*, **2017**, *23*, 10652–10662. <https://doi.org/10.1002/chem.201701763>.
- (27) Sanfilippo, J. E.; Nguyen, A. A.; Karty, J. A.; Shukla, A.; Schluchter, W. M.; Garczarek, L.; Partensky, F.; Kehoe, D. M. Self-Regulating Genomic Island Encoding Tandem Regulators Confers Chromatic Acclimation to Marine Synechococcus. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, *113*, 6077–6082. <https://doi.org/10.1073/pnas.1600625113>.
- (28)

Rose, J. A.; McGuire, C. M.; Hansen, A. M.; Karty, J. A.; Mubarak, M. S.; Peters, D. G. Direct Reduction of 1-Bromo-6-Chlorohexane and 1-Chloro-6-Iodohexane at Silver Cathodes in Dimethylformamide. *Electrochimica Acta*, 2016, 218, 311–317.

<https://doi.org/10.1016/j.electacta.2016.09.066>.

(29)

McGuire, C. M.; Hansen, A. M.; Karty, J. A.; Peters, D. G. Catalytic Reduction of 4,4'-(2,2,2-Trichloroethane-1,1-Diy)Bis(Methoxybenzene) (Methoxychlor) with Nickel(I) Salen Electrogenerated at Reticulated Vitreous Carbon Cathodes. *Journal of Electroanalytical Chemistry*, 2016, 772, 66–72. <https://doi.org/10.1016/j.jelechem.2016.03.024>.

(30)

James, E. D.; Knuckley, B.; Alqahtani, N.; Porwal, S.; Ban, J.; Karty, J. A.; Viswanathan, R.; Lane, A. L. Two Distinct Cyclodipeptide Synthases from a Marine Actinomycete Catalyze Biosynthesis of the Same Diketopiperazine Natural Product. *ACS Synthetic Biology*, 2016, 5, 547–553. <https://doi.org/10.1021/acssynbio.5b00120>.

(31)

Fatila, E. M.; Twum, E. B.; Sengupta, A.; Pink, M.; Karty, J. A.; Raghavachari, K.; Flood, A. H. Anions Stabilize Each Other inside Macrocyclic Hosts. *Angewandte Chemie - International Edition*, 2016, 55, 14057–14062. <https://doi.org/10.1002/anie.201608118>.

(32)

Sidebottom, A. M.; Karty, J. A.; Carlson, E. E. Accurate Mass MS/MS/MS Analysis of Siderophores Ferrioxamine B and E1 by Collision-Induced Dissociation Electrospray Mass Spectrometry. *Journal of the American Society for Mass Spectrometry*, 2015, 26, 1899–1902. <https://doi.org/10.1007/s13361-015-1242-7>.

(33)

Saha-Shah, A.; Weber, A. E.; Karty, J. A.; Ray, S. J.; Hieftje, G. M.; Baker, L. A. Nanopipettes: Probes for Local Sample Analysis. *Chemical Science*, 2015, 6, 3334–3341. <https://doi.org/10.1039/c5sc00668f>.

(34)

Porter, M. R.; Kochi, A.; Karty, J. A.; Lim, M. H.; Zaleski, J. M. Chelation-Induced Diradical Formation as an Approach to Modulation of the Amyloid- β Aggregation Pathway. *Chemical Science*, 2015, 6, 1018–1026. <https://doi.org/10.1039/c4sc01979b>.

(35)

Mufson, S.; Baugh, B.; Bower, C.; Coan, T. E.; Cooper, J.; Corwin, L.; Karty, J. A.; Mason, P.; Messier, M. D.; Pla-Dalmau, A.; Proudfoot, M. Liquid Scintillator Production for the NOvA Experiment. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 2015, 799, 1–9. <https://doi.org/10.1016/j.nima.2015.07.026>.

(36)

Alqahtani, N.; Porwal, S. K.; James, E. D.; Bis, D. M.; Karty, J. A.; Lane, A. L.; Viswanathan, R. Synergism between Genome Sequencing, Tandem Mass Spectrometry and Bio-Inspired Synthesis Reveals Insights into Nocardioazine B Biogenesis. *Organic and Biomolecular Chemistry*, 2015, 13, 7177–7192. <https://doi.org/10.1039/c5ob00537j>.

(37)

Flores, J. A.; Pal, K.; Carroll, M. E.; Pink, M.; Karty, J. A.; Mindiola, D. J.; Caulton, K. G. Mechanistic Understanding of a Silver Pyridylpyrrolide as a Catalyst for 3 + 2 Cyclization of a

Nitrile with Diazo Ester. *Organometallics*, 2014, 33, 1544–1552.

<https://doi.org/10.1021/om400756t>.

(38)

Cheng, Z.; Li, K.; Hammad, L. A.; Karty, J. A.; Bauer, C. E. Vitamin B₁₂ Regulates Photosystem Gene Expression via the CrtJ Antirepressor AerR in *R. Hodobacter capsulatus*. *Molecular Microbiology*, 2014, 91, 649–664. <https://doi.org/10.1111/mmi.12491>.

(39)

Yin, L.; Dragnea, V.; Feldman, G.; Hammad, L. A.; Karty, J. A.; Dann, C. E.; Bauer, C. E. Redox and Light Control the Heme-Sensing Activity of AppA. *mBio*, 2013, 4. <https://doi.org/10.1128/mBio.00563-13>.

(40)

Wu, J.; Cheng, Z.; Reddie, K.; Carroll, K.; Hammad, L. A.; Karty, J. A.; Bauer, C. E. RegB Kinase Activity Is Repressed by Oxidative Formation of Cysteine Sulfenic Acid. *Journal of Biological Chemistry*, 2013, 288, 4755–4762. <https://doi.org/10.1074/jbc.M112.413492>.

(41)

Wagoner, E. R.; Karty, J. A.; Peters, D. G. Catalytic Reduction of 4,4'-(2,2,2-Trichloroethane-1,1-Diyl) Bis(Chlorobenzene) (DDT) with Nickel(I) Salen Electrogenerated at Vitreous Carbon Cathodes in Dimethylformamide. *Journal of Electroanalytical Chemistry*, 2013, 706, 55–63. <https://doi.org/10.1016/j.jelechem.2013.07.033>.

(42)

Tran, B. L.; Krzystek, J.; Ozarowski, A.; Chen, C. H.; Pink, M.; Karty, J. A.; Telser, J.; Meyer, K.; Mindiola, D. J. Formation and Reactivity of the Terminal Vanadium Nitride Functionality. *European Journal of Inorganic Chemistry*, 2013, 2013, 3916–3929. <https://doi.org/10.1002/ejic.201300178>.

(43)

Sidebottom, A. M.; Johnson, A. R.; Karty, J. A.; Trader, D. J.; Carlson, E. E. Integrated Metabolomics Approach Facilitates Discovery of an Unpredicted Natural Product Suite from *Streptomyces Coelicolor* M145. *ACS Chemical Biology*, 2013, 8, 2009–2016. <https://doi.org/10.1021/cb4002798>.

(44)

Peverly, A. A.; Karty, J. A.; Peters, D. G. Electrochemical Reduction of (1R,2r,3S,4R,5r,6S)-Hexachlorocyclohexane (Lindane) at Silver Cathodes in Organic and Aqueous-Organic Media. *Journal of Electroanalytical Chemistry*, 2013, 692, 66–71. <https://doi.org/10.1016/j.jelechem.2013.01.009>.

(45)

Wagoner, E. R.; Hayes, J. L.; Karty, J. A.; Peters, D. G. Direct and Nickel(I) Salen-Catalyzed Reduction of 1,1,2-Trichloro-1,2,2-Trifluoroethane (CFC-113) in Dimethylformamide. *Journal of Electroanalytical Chemistry*, 2012, 676, 6–12. <https://doi.org/10.1016/j.jelechem.2012.04.023>.

(46)

Shukla, A.; Biswas, A.; Blot, N.; Partensky, F.; Karty, J. A.; Hammad, L. A.; Garczarek, L.; Gutu, A.; Schluchter, W. M.; Kehoe, D. M. Phycoerythrin-Specific Bilin Lyase-Isomerase Controls Blue-Green Chromatic Acclimation in Marine *Synechococcus*. *Proceedings of the National Academy of Sciences of the United States of America*, 2012, 109, 20136–20141. <https://doi.org/10.1073/pnas.1211777109>.

(47)

Cooper, B. S.; Hammad, L. A.; Fisher, N. P.; Karty, J. A.; Montooth, K. L. In a Variable Thermal Environment Selection Favors Greater Plasticity of Cell Membranes in *Drosophila Melanogaster*. *Evolution*, 2012, 66, 1976–1984. <https://doi.org/10.1111/j.1558-5646.2011.01566.x>.

(48)

Cheng, Z.; Wu, J.; Setterdahl, A.; Reddie, K.; Carroll, K.; Hammad, L. A.; Karty, J. A.; Bauer, C. E. Activity of the Tetrapyrrole Regulator CrtJ Is Controlled by Oxidation of a Redox Active Cysteine Located in the DNA Binding Domain. *Molecular Microbiology*, 2012, 85, 734–746. <https://doi.org/10.1111/j.1365-2958.2012.08135.x>.

(49)

Sari, Y.; Segu, Z. M.; Youssefagha, A.; Karty, J. A.; Isailovic, D. Neuroprotective Peptide ADNF-9 in Fetal Brain of C57BL/6 Mice Exposed Prenatally to Alcohol. *Journal of Biomedical Science*, 2011, 18, 77. <https://doi.org/10.1186/1423-0127-18-77>.

(50)

Hua, Y.; Ramabhadran, R. O.; Uduehi, E. O.; Karty, J. A.; Raghavachari, K.; Flood, A. H. Aromatic and Aliphatic CH Hydrogen Bonds Fight for Chloride While Competing alongside Ion Pairing within Triazolophanes. *Chemistry - A European Journal*, 2011, 17, 312–321. <https://doi.org/10.1002/chem.201002340>.

(51)

Hua, Y.; Ramabhadran, R. O.; Karty, J. A.; Raghavachari, K.; Flood, A. H. Two Levels of Conformational Pre-Organization Consolidate Strong CH Hydrogen Bonds in Chloride-Triazolophane Complexes. *Chemical Communications*, 2011, 47, 5979.

<https://doi.org/10.1039/c1cc10428d>.

(52)

Hammad, L. A.; Cooper, B. S.; Fisher, N. P.; Montooth, K. L.; Karty, J. A. Profiling and Quantification of *Drosophila Melanogaster* Lipids Using Liquid Chromatography/Mass Spectrometry. *Rapid Communications in Mass Spectrometry*, 2011, 25, 2959–2968.

<https://doi.org/10.1002/rcm.5187>.

(53)

Bronstein, L. M.; Atkinson, J. E.; Malyutin, A. G.; Kidwai, F.; Stein, B. D.; Morgan, D. G.; Perry, J. M.; Karty, J. A. Nanoparticles by Decomposition of Long Chain Iron Carboxylates: From Spheres to Stars and Cubes. *Langmuir*, 2011, 27, 3044–3050.

<https://doi.org/10.1021/la104686d>.

(54)

Foley, M. P.; Du, P.; Griffith, K. J.; Karty, J. A.; Mubarak, M. S.; Raghavachari, K.; Peters, D. G. Electrochemistry of Substituted Salen Complexes of Nickel(II): Nickel(I)-Catalyzed Reduction of Alkyl and Acetylenic Halides. *Journal of Electroanalytical Chemistry*, 2010, 647, 194–203. <https://doi.org/10.1016/j.jelechem.2010.06.001>.

(55)

Andino, J. G.; Flores, J. A.; Karty, J. A.; Massa, J. P.; Park, H.; Tsvetkov, N. P.; Wolfe, R. J.; Caulton, K. G. Ligand Influence on Metal Aggregation: A Unique Bonding Mode for Pyridylpyrrolides. *Inorganic Chemistry*, 2010, 49, 7626–7628.

<https://doi.org/10.1021/ic100878s>.

(56)

Kilgore, U. J.; Sengelaub, C. A.; Fan, H.; Tomaszewski, J.; Karty, J. A.; Baik, M. H.; Mindiola, D. J. A Transient Vanadium(III) Neopentylidene Complex. Redox Chemistry and Reactivity of

the V=CH TBu Functionality. *Organometallics*, 2009, 28, 843–852.

<https://doi.org/10.1021/om800800g>.

(57)

Kilgore, U. J.; Karty, J. A.; Pink, M.; Gao, X.; Mindiola, D. J. Tellus in, Tellus out: The Chemistry of the Vanadium Bis(Telluride) Functionality. *Angewandte Chemie - International Edition*, 2009, 48, 2394–2397. <https://doi.org/10.1002/anie.200806022>.

(58)

Li, Y.; Pink, M.; Karty, J. A.; Flood, A. H. Dipole-Promoted and Size-Dependent Cooperativity between Pyridyl-Containing Triazolophanes and Halides Leads to Persistent Sandwich Complexes with Iodide. *Journal of the American Chemical Society*, 2008, 130, 17293–17295. <https://doi.org/10.1021/ja8077329>.

(59)

Gach, P. C.; Karty, J. A.; Peters, D. G. Catalytic Reduction of Hexachlorobenzene and Pentachlorobenzene by Cobalt(I) Salen Electrogenerated at Vitreous Carbon Cathodes in Dimethylformamide. *Journal of Electroanalytical Chemistry*, 2008, 612, 22–28. <https://doi.org/10.1016/j.jelechem.2007.09.005>.

(60)

Running, W. E.; Ravipaty, S.; Karty, J. A.; Reilly, J. P. A Top-down/Bottom-up Study of the Ribosomal Proteins of Caulobacter Crescentus. *Journal of Proteome Research*, 2007, 6, 337–347. <https://doi.org/10.1021/pr060306q>.

(61)

Karty, J. A.; Running, W. E.; Reilly, J. P. Two Dimensional Liquid Phase Separations of Proteins Using Online Fractionation and Concentration between Chromatographic Dimensions. *Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences*, 2007, 847, 103–113. <https://doi.org/10.1016/j.jchromb.2006.09.043>.

(62)

Gach, P. C.; Mubarak, M. S.; Karty, J. A.; Peters, D. G. Catalytic Reduction of 4,4[Sup]-(2,2,2-Trichloroethane-1,1-Diy)Bis(Chlorobenzene) with Cobalt(I) Salen Electrogenerated at Vitreous Carbon Cathodes in Dimethylformamide. *Journal of The Electrochemical Society*, 2007, 154, F1. <https://doi.org/10.1149/1.2382453>.

(63)

Du, P.; Mubarak, M. S.; Karty, J. A.; Peters, D. G. Electrosynthesis of 4-Methylcoumarin via Cobalt(I)-Catalyzed Reduction of 2-Acetylphenyl 2-Chloroacetate or 2-Acetylphenyl 2,2-Dichloroacetate. *Journal of The Electrochemical Society*, 2007, 154, F231. <https://doi.org/10.1149/1.2789400>.

(64)

Bishop, G. W.; Karty, J. A.; Peters, D. G. Catalytic Reduction of 1,1,1-Trichloro-2,2,2-Trifluoroethane (CFC-113a) by Cobalt(I) Salen Electrogenerated at Vitreous Carbon Cathodes in Dimethylformamide. *Journal of The Electrochemical Society*, 2007, 154, F65. <https://doi.org/10.1149/1.2433697>.

(65)

Goken, D. M.; Ischay, M. A.; Peters, D. G.; Tomaszewski, J. W.; Karty, J. A.; Reilly, J. P.; Mubarak, M. S. Alkyl Group Incorporation into Nickel Salen during Controlled-Potential Electrolyses in the Presence of Alkyl Halides. *Journal of The Electrochemical Society*, 2006, 153, E71. <https://doi.org/10.1149/1.2161579>.

(66)

Vanabalabhpata, P.; Peters, D. G.; Karty, J. A. Stoichiometric Reduction of Primary Alkyl Monohalides with Electrogenerated Nickel(I) Salen: Formation of Aldehydes. *Journal of Electroanalytical Chemistry*, 2005, 580, 300–312.

<https://doi.org/10.1016/j.jelechem.2005.03.041>.

(67)

Karty, J. A.; Reilly, J. P. Deamidation as a Consequence of β -Elimination of Phosphopeptides. *Analytical Chemistry*, 2005, 77, 4673–4676. <https://doi.org/10.1021/ac050294c>.

(68)

Arnold, R. J.; Karty, J. A.; Reilly, J. P. Bacterial Strain Differentiation by Mass Spectrometry. In *Identification of Microorganisms by Mass Spectrometry*; Wiley Online Books; John Wiley & Sons, Inc.: Hoboken, NJ, USA, 2005; pp 181–201. <https://doi.org/10.1002/0471748641.ch9>.

(69)

Persinger, J. D.; Hayes, J. L.; Klein, L. J.; Peters, D. G.; Karty, J. A.; Reilly, J. P. Catalytic Reduction of 1,1,2-Trichloro-1,2,2-Trifluoroethane (CFC-113) by Cobalt(I) Salen Electrogenerated at Vitreous Carbon Cathodes. *Journal of Electroanalytical Chemistry*, 2004, 568, 157–165. <https://doi.org/10.1016/j.jelechem.2004.01.020>.

(70)

Karty, J. A. Mass Spectrometric Identification of Cellular Proteins: Sample Preparation and Data Analysis Techniques for Proteomics. Thesis, 2004.

(71)

Goken, D. M.; Peters, D. G.; Karty, J. A.; Reilly, J. P. Alkylation of [2,2'-([2,2'-Bipyridine]-6,6'-Diyl)Bis[Phenolato]-N,N',O,O']Nickel(II) during Catalytic Reduction of 1-Iodoctane. *J. Electroanal. Chem.*, 2004, 564, 123–132. <https://doi.org/10.1016/j.jelechem.2003.11.008>.

(72)

Alvey, R. M.; Karty, J. A.; Roos, E.; Reilly, J. P.; Kehoe, D. M. Lesions in Phycoerythrin Chromophore Biosynthesis in Fremyella Diplosiphon Reveal Coordinated Light Regulation of Apoprotein and Pigment Biosynthetic Enzyme Gene Expression. *THE PLANT CELL ONLINE*, 2003, 15, 2448–2463. <https://doi.org/10.1105/tpc.015016>.

(73)

Moad, A. J.; Klein, L. J.; Peters, D. G.; Karty, J. A.; Reilly, J. P. Catalytic Reduction of Ethyl Chloroacetate by Cobalt(I) Salphen Electrogenerated at Vitreous Carbon Cathodes. *Journal of Electroanalytical Chemistry*, 2002, 531, 163–169. [https://doi.org/10.1016/S0022-0728\(02\)01057-4](https://doi.org/10.1016/S0022-0728(02)01057-4).

(74)

Karty, J. A.; Ireland, M. M. E.; Brun, Y. V.; Reilly, J. P. Defining Absolute Confidence Limits in the Identification of Caulobacter Proteins by Peptide Mass Mapping. *Journal of Proteome Research*, 2002, 1, 325–335. <https://doi.org/10.1021/pr025518b>.

(75)

Karty, J. A.; Ireland, M. M. E.; Brun, Y. V.; Reilly, J. P. Artifacts and Unassigned Masses Encountered in Peptide Mass Mapping. *Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences*, 2002, 782, 363–383. [https://doi.org/10.1016/S1570-0232\(02\)00550-0](https://doi.org/10.1016/S1570-0232(02)00550-0).

(76)

Ireland, M. M. E.; Karty, J. A.; Quardokus, E. M.; Reilly, J. P.; Brun, Y. V. Proteomic Analysis of the Caulobacter Crescentus Stalk Indicates Competence for Nutrient Uptake. *Molecular Microbiology*, 2002, 45, 1029–1041. <https://doi.org/10.1046/j.1365-2958.2002.03071.x>.

- (77)
Ji, C.; Peters, D. G.; Karty, J. A.; Reilly, J. P.; Mubarak, M. S. Direct and Cobalt(I) Salen-Catalyzed Reduction of 2,6-Bis(Chloromethyl)Pyridine at Carbon Cathodes in Acetonitrile. *Journal of Electroanalytical Chemistry*, 2001, 516, 50–58. [https://doi.org/10.1016/S0022-0728\(01\)00651-9](https://doi.org/10.1016/S0022-0728(01)00651-9).
- (78)
Klein, L. J.; Alleman, K. S.; Peters, D. G.; Karty, J. A.; Reilly, J. P. Catalytic Reduction of Ethyl Chloroacetate by Cobalt(I) Salen Electrogenerated at Vitreous Carbon Cathodes. *Journal of Electroanalytical Chemistry*, 2000, 481, 24–33. [https://doi.org/10.1016/S0022-0728\(99\)00473-8](https://doi.org/10.1016/S0022-0728(99)00473-8).
- (79)
Gashti, A. N.; Huffman, J. C.; Edwards, A.; Szekeley, G.; Siedle, A. R.; Karty, J. A.; Reilly, J. P.; Todd, L. J. Fluorination Studies of the [Commo-3,3'-Co(3,1,2-CoC₂B₉H₁₁) 2-1] Ion. *Journal of Organometallic Chemistry*, 2000, 614–615, 120–124. [https://doi.org/10.1016/S0022-328X\(00\)00625-2](https://doi.org/10.1016/S0022-328X(00)00625-2).
- (80)
Beardsley, R. L.; Karty, J. A.; Reilly, J. P.; Keough, T. Enhancing the Intensities of Lysine-Terminated Tryptic Peptide Ions in Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry. *Rapid Communications in Mass Spectrometry*, 2000, 14, 2147–2153. [https://doi.org/10.1002/1097-0231\(20001215\)14:23<2147::AID-RCM145>3.0.CO;2-M](https://doi.org/10.1002/1097-0231(20001215)14:23<2147::AID-RCM145>3.0.CO;2-M).
- (81)
Arnold, R. J.; Karty, J. A.; Ellington, A. D.; Reilly, J. P. Monitoring the Growth of a Bacteria Culture by MALDI-MS of Whole Cells. *Analytical Chemistry*, 1999, 71, 1990–1996. <https://doi.org/10.1021/ac981196c>.
- (82)
Karty, J. A.; Lato, S.; Reilly, J. P. Detection of the Bacteriological Sex Factor in E. Coli by Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry. *Rapid Communications in Mass Spectrometry*, 1998, 12, 625–629. [https://doi.org/10.1002/\(SICI\)1097-0231\(19980529\)12:10<625::AID-RCM205>3.0.CO;2-Q](https://doi.org/10.1002/(SICI)1097-0231(19980529)12:10<625::AID-RCM205>3.0.CO;2-Q).