

Work done at UMD_Fu Chen (updated on Feb 28, 2022):

Submitted/Under review-revision/In preparation

- 1) Qin, K., Holguin, K., Huang, J., Mohammadiroudbari, M., **Chen, F.**, Yang, Z., Xu, G. and Luo, C. A fast-charging and high-temperature all-organic rechargeable potassium battery. *Adv. Sci.* Under revision. (SSNMR at UMD) Acknowledgement to SSNMR instrument.
- 2) Holguin, K., Qin, K., Kamphaus, E., **Chen, F.**, Cheng, L., Xu, G. and Luo, C. Establishing substitution rules of functional groups for high-capacity organic anode materials in Na-ion batteries. Submitted to *J. Power Sources*. Under Review. (SSNMR at UMD) Acknowledgement to SSNMR instrument.
- 3) Mohanan, M., Hong, M. J., Pandey, P., Zhang, Z., **Chen, F.**, Kim, S. J., Labram, J. G. and Gavvalapalli, N. Molecularly Strapped Conjugated Microporous Polymers. Submitted to *Chem. Sci.* Under Review. (SSNMR at UMD) Acknowledgement to SSNMR instrument.
- 4) Wang, P., Fortner, J., Luo, H., Kłos, J., Wu, X., Qu, H., **Chen, F.**, Li, Y. and Wang, Y.H. What pairs with the aryl sp³ defect on sp² carbon lattices? Submitted to *Nat. Synth.* Under review.
- 5) Li, T., Algrim, L., McEntee, M., Tsyshevsky, R., Leonard, M., Durke, E.M., Karwacki, Christopher., Kukljad, M.M., Zachariah, M.R. and Rodriguez, E.E. Mesoporous CeO₂ towards DMMP Decomposition. In preparation. (SSNMR at UMD) Acknowledgement to **Fu Chen** and SSNMR instrument.

Published/Accepted

- 6) Schmidt, W.F., **Chen, F.**, Broadhurst, C.L., Qin, J., Crawford, M., and Kim, M.S. Unique and Redundant Spectral Fingerprints of Docosahexaenoic, Alpha-Linolenic and Gamma-Linolenic Acids in Binary Mixtures. Accepted by *J. Mol. Liq.*
- 7) Celiz, M. D., Morehouse, K. M., Ridge, C. D., **Chen, F.**, deJager, L. S. and Begley, T. H. Extraction and Analysis of an Organophosphate Salt Nucleating Agent from Irradiated Polypropylene Resin. Accepted by *Food. Addit. Contam.* (SSNMR at UMD) Acknowledgement to SSNMR instrument.
- 8) Xu, J., Ji, X., Zhang, J., Yang, C., Wang, P., Liu, S., Ludwig, K., **Chen, F.**, Kofinas, P. and Wang, C. Aqueous Electrolyte Design for Super-Stable 2.5 V LiMn₂O₄ | Li₄Ti₅O₁₂ Pouch Cells. *Nature Energy*. 2022, <https://doi.org/10.1038/s41560-021-00977-5>
- 9) Skaggs, C.M., Siegfried, P.E., Kang, C.-J., Brown, C.M., **Chen, F.**, Ma, L., Ehrlich, S.N., Xin, Y., Croft, M., Xu, W., Lapidus, S.H., Ghimire, N.J. and Tan, X. Iridate Li₈IrO₆: An Antiferromagnetic Insulator. *Inorg. Chem.* 2021, 60: 17201-17211. (SSNMR at UMD) Acknowledgement to SSNMR instrument.
- 10) Pan, N., Lin, M., Cui, H., Fan, W., Liu, C., **Chen, F.**, Fan, C., Xia, Y., and Sui, K. Accurate Control of All-Polymer Multishelled Hollow Spheres by One-Step Reaction-Diffusion. *Chem. Mater.* 2020, 32: 8442–8449.
- 11) Olademehin, O., Liu, C., Rimal, B., Adegboyega, N.F., **Chen, F.**, Sim, C., and Kim, S.J. Dsi-RNA Knockdown of Genes Regulated by Foxo Reduces Glycogen and Lipid Accumulations in Diapausing *Culex Pipiens*. *Scientific Reports*. 2020, 10: 17201. (SSNMR at UMD) Acknowledgement to SSNMR instrument.
- 12) Li, A.M., Wang, Y., Zavalij, P., **Chen, F.**, Muñoz-Castro, A., and Eichhorn, B.W. [Cp*₃RuPb₁₁]³⁻ and [Cu@Cp*₃RuPb₁₁]²⁻: Centered and Non-Centered Transition-Metal Substituted Zintl Icosahedra. *Chem. Commun.* 2020, 56: 10859-10862.
- 13) Xiao, S., Lee, W., **Chen, F.**, Zavalij, P., Gutierrez, O., and Davis, J.T. Oxidation of 8-Thioguanosine Gives Redox-Responsive Hydrogels and Reveals Intermediates in a Desulfurization Pathway. *Chem. Commun.* 2020, 56: 6981-6984. (SSNMR at UMD) Acknowledgement to SSNMR instrument.

- 14) Li, A.M., Wang, Y., Downing, D.O., **Chen, F.**, Zavalij, P., Muñoz-Castro, A., and Eichhorn, B.W. Endohedral Plumbasphenes of the Group 9 Metals: Synthesis, Structure and Properties of the $[M@Pb_{12}]^{3-}$ (M = Co, Rh, Ir) Ions. *Chem. Eur. J.* 2020, 26: 5824-5833.
- 15) Schmidt, W.F., **Chen, F.**, Broadhurst, C.L., and Crawford, M. Liquid Molecular Model Explains Discontinuity between Site Uniformity among three N-3 Fatty Acids and Their ^{13}C and 1H NMR Spectra. *J. Mol. Liq.* 2020, 314:113376.
- 16) Cui, C., Ji, X., Wang, P.F., Xu, G.L., Chen, L., Chen, J., Kim, H., Ren, Y., **Chen, F.**, Yang, C., Fan, X., Luo, C., Amine, K., and Wang, C. Integrating Multi-Redox Centers into one Framework for High Performance Organic Li-Ion Battery Cathode. *ACS Energy Lett.* 2020, 5: 224-231. (SSNMR at UMD) Acknowledgement to SSNMR instrument.
- 17) Schmidt, W.F., **Chen, F.**, Broadhurst, C.L., Nguyen, J.K., Qin, J., Chao, K., and Kim, M.S. GTRS and 2D-NMR Studies of Alpha and Gamma Linolenic Acids Each Containing the Same $H_2C_{14}-(H-C=C-H)-C_{11}H_2-(H-C=C-H)-C_8H_2$ Moiety. *J. Mol. Struct.* 2019, 1196: 258-270.