

**Published papers using solid-state 500 MHz NMR at UMD (updated by Fu Chen on July 15, 2023):**

- 1) Zhang, W., Koverga, V., Liu, S., Zhou, J., Wang, J., Bai, P., Tan, S., Dandu, N., Wang, Z., **Chen, F.**, Xia, J., Wan, H., Zhang, X., Zhang, J., Nan, B., Lucht, B.L., Li, A.-M., Wang, H., Ncube, M., Yang, X.-Q., Hu, E., Raghavan, S.R., Ngo, A.T., Wang, C. Single-phase local-high-concentration solid polymer electrolytes for lithium metal batteries. Revision Submitted.
- 2) Yang, M.C., Rollins, D., Huber, D., Ou, J.-T., Zeppuhar, A., **Chen, F.**, Taylor, M. Carboxylate-rich porous organic polymers for cobalt adsorption from water. Submitted.
- 3) Baumann, A., Beaucage, P., Vallery, R., Gidley, D., Nieuwendaal, R., Snyder, C., Ilavsky, J., **Chen, F.**, Stafford, C., Soles, C. Assessing Composite Structure in MOF-Polymer Mixed-Matrix Membranes. Submitted.
- 4) Mohammadiroudbari, M., Huang, J., Kim, E., Yang, Z., **Chen, F.**, Luo, C. Porous Bipolar Polymers as Organic Cathodes for Sustainable Sodium/Potassium-ion Batteries. *J. Mater. Chem. A* Accepted.
- 5) Mohanan, M., Ahmad, H., Ajayan, P., Pandey, P.K., Calvert, B., Zhang, X., **Chen, F.**, Kim, S.J., Kundu, S., Gavvalapalli, N. Using Molecular Straps to Engineer Conjugated Porous Polymers Growth, Chemical Doping and Conductivity. *Chem. Sci.* 2023, 14: 5510–5518. <https://doi.org/10.1039/d3sc00983a>
- 6) 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.* 2022, 2106116. <https://doi.org/10.1002/advs.202106116>
- 7) 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. *J. Power Sources.* 2022, 533: 231383. <https://doi.org/10.1016/j.jpowsour.2022.231383>
- 8) Zhang, X., Mao, Y., Briber, R.M. Efficient production of oligomeric chitin with narrow distributions of degree of polymerization using sonication-assisted phosphoric acid hydrolysis. *Carbohydr. Polym* 2022, 276: 118736. <https://doi.org/10.1016/j.carbpol.2021.118736> Acknowledgement.
- 9) 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. *Food. Addit. Contam.* 2022, 39: 1009-1020. <https://doi.org/10.1080/19440049.2022.2037727>
- 10) Li, T., Algrim, L., McEntee, M., Tsyshevsky, R., Leonard, M., Durke, E.M., Karwacki, Christopher., Kukljad, M.M., Zachariah, M.R., Rodriguez, E.E. *J. Phys. Chem. C* 2022, 126: 17923–17934. Mesoporous CeO<sub>2</sub> towards DMMP Decomposition. <https://doi.org/10.1021/acs.jpcc.2c04853> Acknowledgement.
- 11) 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 Li<sub>8</sub>IrO<sub>6</sub>: An Antiferromagnetic Insulator. *Inorg. Chem.* 2021, 60: 17201-17211. <https://doi.org/10.1021/acs.inorgchem.1c02535>
- 12) Olademihin, 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. <https://doi.org/10.1038/s41598-020-74292-6>

- 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. <https://doi.org/10.1039/D0CC02926B>
- 14) 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. <https://doi.org/10.1021/acsenergylett.9b02466>