NKU Department of Chemistry
Research Publications 2017-Present
NKU Chemistry Faculty Member - highlighted
Undergraduate Researchers - underlined

1. Funk H.M.; DiVita D.J.; Sizemore H.E.; Wehrle K.; Miller C.L.; Fraley M.E.; Mullins, A.K.; Guy; A.R.; Phizicky, E.M. and Guy, P.M. Identification of a Trm732 Motif Required for 2′-O-methylation of the tRNA Anticodon Loop by Trm7. *ACS Omega*. **2022** Apr 13. DOI: 10.1021/acsomega.1c07231

2. Wehrle, R; Rosen, A.; Nguyen, T.; Koons, K., Jump, E.; Stockfish, A. Hare, P.; Atesin, A; Ateşin T.A.; and Lili Ma. "Investigation on the Synthesis, Application and Structural Features of Heteroaryl 1,2-Diketones". *ACS Omega* **2022**, 7, 26650–26660.

3. Shelton, C. L.; Meneely, K. M.; Ronnebaum, T. A.; Chilton, A. S.; Riley, A. P.; Prisinzano, T. E.; Lamb, A. L. Rational inhibitor design for Pseudomonas aeruginosa salicylate adenylation enzyme PchD. *JIBC Journal of Biological Inorganic Chemistry,* **2022**. DOI: 10.1007/s00775-022-01941-8.

4. Daniels, C.; Li, S. Y.; Iba, B.; Zhao, Y.; Kuklinski, N.; Bushey, M. M., A thermodynamic study of capillary electrochromatographic retention of aromatic hydrocarbons on a lauryl acrylate porous polymer monolithic column with measured phase ratio. *J. Sep. Sci.* **2021,** *44* (16), 3098-3106. DOI: 10.1002/jssc.202001285
5. Gordon, E.; Segal, S.; Sabou, A.-K.; Gemene, K. L., Quantitative determination of dextran sulfate and pentosan polysulfate and their binding with protamine using chronopotentiometry with polyion-selective electrodes. *Anal. Chim. Acta* **2021,** *1149*, 338208.DOI: 10.1016/j.aca.2021.338208

6. Hayes, M.; Smith, A; Arrasmith, C.; Davis, W.; Daniels, C. R., Initial characterization of PDMAEMA:Styrene porous polymer monolithic morphologies, *App. Sci.*, 11(15), **2021**, 7097. DOI: https://doi.org/10.3390/app11157097

7. Adriano, N.; Ahearn; C.; Black; Cracchiolo; M.; Ghere; D.; Nuñez; A.; Olivan; L.; Patel; R.; Saner; S.; Smith K; Watkins, B. and Hare, P.M. "Solvent and wavelength dependent photolysis of estrone," *Photochem. Photobio.*, **2021**, in press https://doi.org/10.1111/php.13542

8. Funk, H. M.; Thomas, M.; Spigelmyer, S. M.; Sebree, N. J.; Bales, R. O.; Burchett, J. B.; Mamaril, J. B.; Guy, M. P.; Zhao, R.; Limbach, P. A., Identification of the enzymes responsible for m2,2G and acp3U formation on cytosolic tRNA from insects and plants. *PLoS One* **2020,** *15* (11), e0242737. https://doi.org/10.1371/journal.pone.0242737

9. Hartman, C. J.; Mester, J. C.; Cohen, A. I.; Hare, P. M., Novel inactivation of the causative fungal pathogen of white-nose syndrome with methoxsalen plus ultraviolet A or B radiation. *PLoS One* **2020,** *15* (9), e0239001. https://doi.org/10.1371/journal.pone.0239001

10. Soper-Hopper, M. T.; Vandegrift, J.; Baker, E. S.; Fernandez, F. M., Metabolite collision cross section prediction without energy-minimized structures. *Analyst* **2020,** *145* (16), 5414-5418. doi: 10.1039/d0an00198h

11. Rosen, A.; Lindsay, K.; Quillen, A.; Nguyen, Q.; Neiser, M.; Ramirez, S.; Costan, S.; Johnson, N.; Do, T. D.; Ma, L., A microwave-assisted direct heteroarylation of ketones using transition metal catalysis. *J. Visualized Exp.* **2020,** (156), e60441/1-e60441/8. doi: 10.3791/60441.

12. Quillen, A.; Nguyen, Q.; Neiser, M.; Lindsay, K.; Rosen, A.; Ramirez, S.; Costan, S.; Johnson, N.; Do, T.D.; Rodriguez, O.; Rivera, D.; Atesin, T.; Atesin, T. A.; Ma, L., Palladium-Catalyzed Direct α-C(sp3) Heteroarylation of Ketones under Microwave Irradiation. *J. Org. Chem.* **2019,** *84* (12), 7652-7663 https://doi.org/10.1021/acs.joc.9b00446

13. Choi, W.; Villegas, V.; Istre, H.; Heppler, B.; Gonzalez, N.; Brusman, N.; Snider, L.; Hogle, E.; Tucker, J.; Onate, A.; Onate, S.; Ma, L.; Paula, S., Synthesis and characterization of CAPE derivatives as xanthine oxidase inhibitors with radical scavenging properties. *Bioorg Chem* **2019,** *86*, 686-695. DOI: 10.1016/j.bioorg.2019.02.049

14. Daniels, C. R.; Waguespack, B. L.; Hodges, S. A.; Bushey, M. M., Temperature effects on retention and efficiency of butyl and lauryl acrylate porous polymer monoliths in capillary electrochromatography. *Journal of Separation Science* **2019,** *42* (24), 3703-3711. DOI: 10.1002/jssc.20190083

15. Han, L.; Guy, M. P.; Kon, Y.; Phizicky, E. M., Lack of 2'-O-methylation in the tRNA anticodon loop of two phylogenetically distant yeast species activates the general amino acid control pathway. *PLoS Genet* **2018,** *14* (3), e1007288. DOI: 10.1371/journal.pgen.1007288

16. Russell, K.C.; Biros, S.M., The TIM Consortium: A Dispersed REU Site at Primarily Undergraduate Institutes. In *Best Practices for Chemistry REU Programs*, American Chemical Society: **2018**; *Vol. 1295*, pp 59-71.

17. M. J. Payea; M. F. Sloma; Y. Kon; D. L. Young; M. P. Guy; X. Zhang; T. De Zoysa; S. Fields; D. H. Mathews; E. M. Phizicky "Widespread temperature sensitivity and tRNA decay due to mutations in a yeast tRNA," *RNA*, **2018**, *24*, 410-422. DOI: 10.1261/rna.064642.117

18. McLane, R.D.; Boyle, M.S.; Le, C.-L.L.; Lanzillotta, L.; Taylor, Z.L.; Anthony, S.R.; Tranter, M.; Onorato, A.J., Synthesis and PGE2 inhibitory activity of novel diarylheptanoids. *Bioorg Med Chem Lett* **2018,** *28* (3), 334-338. DOI: 10.1016/j.bmcl.2017.12.046

19. Cahill, K.; Suttmiller, R.; Oehrle, M.; Sabelhaus, A.; Gemene, K. L., Pulsed Chronopotentiometric Detection of Thrombin Activity Using Reversible Polyion Selective Electrodes. *Electroanalysis* **2017,** *29* (2), 448-455. DOI: 10.1002/elan.201600401

20. Mohammad; J. Mun; A.J. Onorato; M.D. Morton; A.I. Saleh; M.B. Smith "The influence of distal substitution on the base-induced isomerization of long-chain terminal alkynes," *Tetrahedron Letters,* **2017**, *58*, 4162-4165. DOI: 10.1016/j.tetlet.2017.09.026