

Department of Chemistry

Summary

As a part of the Ray P. Authement College of Sciences, the UL Lafayette Department of Chemistry offers B.S. degrees in chemistry following three tracks: a track with American Chemical Society (ACS) certification, a non-certified track, and a pre-pharmacy track. In addition, the program offers minors in chemistry and forensics. As of Fall 2020, the Department of Chemistry employs ten tenured/tenure-track faculty, one instructor, four full time temporary emergency instructors, two adjunct faculty, and three staff members.

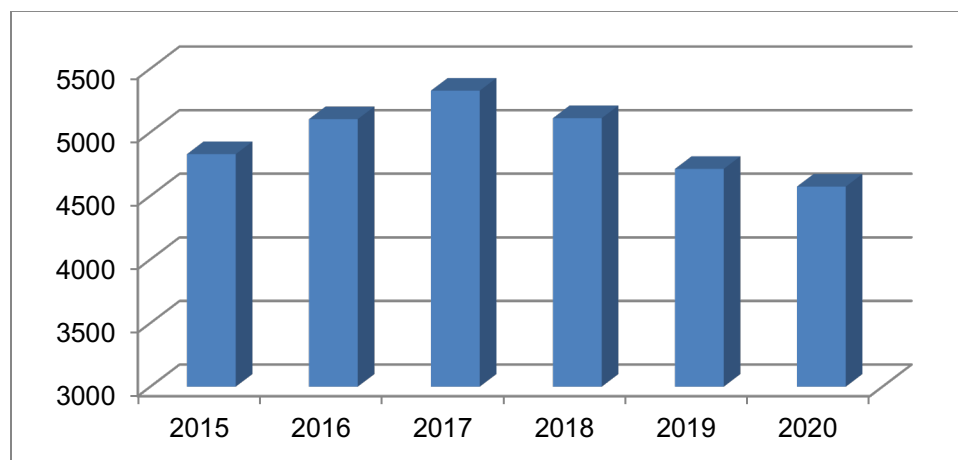
Enrollments

Enrollment figures for students majoring in chemistry are shown below:

	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020
Freshman	60	63	39	56	64	N/A*
Sophomore	30	30	26	38	36	N/A*
Junior	38	39	32	39	30	N/A*
Senior	33	37	21	29	27	N/A*
Grand Total	161	140	121	162	157	141*

* UL's posted pivot tables have not been updated to include Fall '20 data.

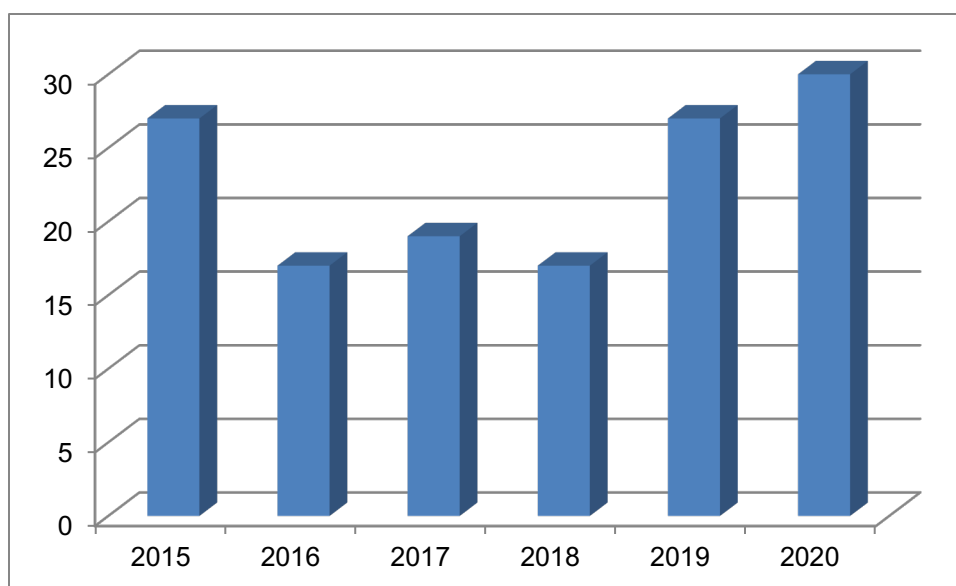
Department of Chemistry currently is home to the largest undergraduate chemistry program in our state. On average, we graduate 15-20 chemistry majors per year. In addition, we have a very large undergraduate service commitment. Annual enrollments in departmental course offerings peaked in 2017 at 5,327 students and declined to 4,573 students for 2020 (Spring '20: 2,144; Summer: 245; Fall: 2,184). These most recent figures are not necessarily representative due to the Covid-19 pandemic.



Students enrolled in chemistry classes by calendar year, 2015 – 2020

Peer-Reviewed Journal Publications

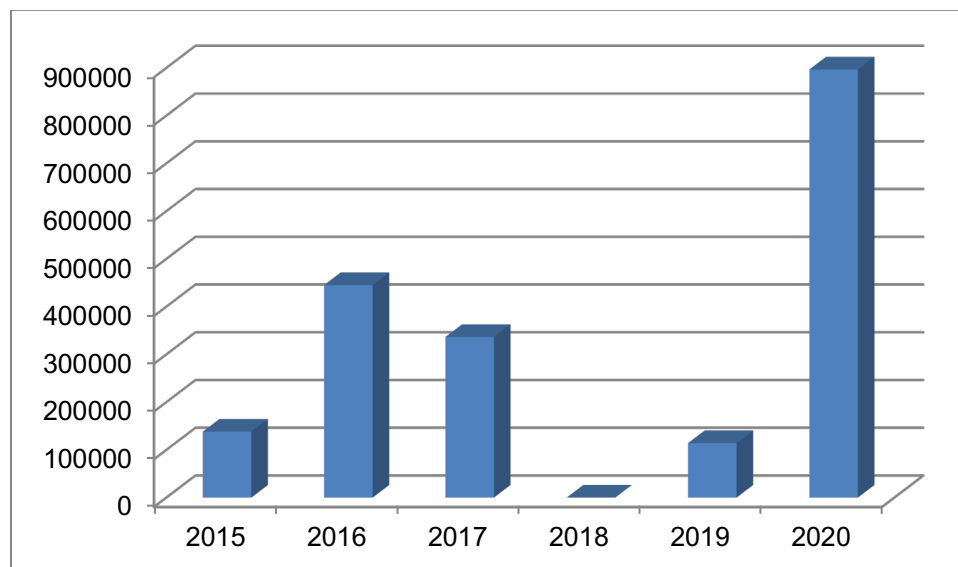
After one retirement in 2020, the Department of Chemistry currently had ten research-active faculty members (Gallo, Junk, Karsili, Knierim, Louka, Massoud, Srivastava, Wang, Xu, Yan). Between 2015 and 2020, the Department of Chemistry produced 137 peer-reviewed publications, most of which appeared in prestigious journals. This amounts to 2.28 publications per research active faculty per year over the past six years. A marked increase in publications was seen after 2018. This is largely due to the fact that relatively recent hires had accumulated enough results to significantly contribute. It should be noted that, in the absence of a graduate program before 2019, virtually all research was accomplished with the participation of undergraduate students.



Peer-reviewed publications by calendar year, 2015 - 2020

External Funding

Members the faculty of the Department of Chemistry received \$1.9 million in external funding between 2015 and 2020. This number reflects shared controlled by chemistry faculty in cases where investigators external to the Department participated. It is noteworthy that a significant percentage of successful proposals resulted from intra- and interdepartmental collaboration, reflecting team effort. The large increase for 2020 reflects two major federal grants secured by Dr. Karsili.



Funding by calendar year, 2015 – 2020, reflecting starting dates of external awards to chemistry faculty (controlling shares)

Presentations

Between 2015 and 2020, the faculty of the Department of Chemistry has given 78 presentations, or 1.6 presentations per research active faculty member per year. Many of these presentations were given to international audiences or solicited. The total of five presentations for 2020 is abnormally low due to Covid-19.

Major Program Changes

The Department of Chemistry obtained approval for a Master's program in Industrial Chemistry, to begin in fall 2020, and jointly with the Department of Physics and the School of Geosciences hosts a new Ph.D. program in Earth and Energy Sciences.

Noted Accomplishments

Members of our faculty served as editors or members of the editorial boards of 33 journals. Three of our faculty (Louka, Xu, Massoud) hold Distinguished Professorships. Between 2015 and 2020, the faculty of the Department of Chemistry has received 26 awards and honors.

Editorship

- **Karsili, T.N.V.** Guest Editor. *Molecules, Special Issue: Chemistry Revealed by Ultrafast Spectroscopy*, 2020-Present
- **Karsili, T.N.V.** Editorial Board Member, *Quantum Beam Science* (2020-Present).
- **Louka, F.R.**, member of the Editorial Board, *International Journal of Chromatography & Separation Techniques*, 2017-Present.
- **Louka, F.R.**, member of the Editorial Board, *Journal of Medicinal Chemistry and Drug Design (JMCDD)*, 2017-Present.

- **Louka, F.R.**, Editorial board member, *Environments*, 2018.
- **Louka, F.R.**, Editorial board member, *Advances in Chemistry*, 2018.
- **Massoud, S.S.**, Reviewer and Editor, *Frontiers in Chemistry-Inorganic Chemistry*, 2018-Present
- **Massoud, S.S.**, Editorial board member, *MAYFEB Journal of Chemistry*, 2016-Present.
- **Massoud, S.S.**, Editorial Board, *Dataset Papers in Materials Science*, 2011-Present
- **Massoud, S. S.** Editorial board member of *Chemistry Proceedings*, 2020.
- **Massoud, S. S.** Guest Editor for *Magnetochemistry*, 2020.
- **Massoud, S.S.**, Editorial board member, *Journal of Advances in Chemistry*, 2018.
- **Massoud, S.S.**, Editorial board member, *Jacobs Journal of Structural Chemistry*, 2018.
- **Massoud, S.S.**, Editorial Board, *Journal of Advances in Chemistry*, 2018.
- **Massoud, S.S.**, Editorial board member, *Asian Chemistry Letters (ACL)*, 2018.
- **Massoud, S.S.**, Invited as Guest Editor, *Advances in Anticancer by Coordination Compounds*, [Special Issue] *Crystals*. 2017.
- **Massoud, S.S.**, Editor for an e-book series, *Material Science: Current and Future Developments* by Bentham Science Publishers, 2015.
- **Massoud, S.S.**, Editorial Board, *Magnetochemistry Journal*, 2015.
- **Srivastava, R.S.** Editorial board member of *Advances in Applied Chemistry and Biochemistry Journal*, 2020-Present.
- **Srivastava, R.S.**, Editorial board member, *Pure and Applied Chemical Sciences*, 2018-Present.
- **Srivastava, R.S.**, Editorial board member, *Peertechz*, 2018-Present.
- **Srivastava, R.S.**, Editor, *Inorganic Journal of Chemistry*, 2006-Present.
- **Srivastava, R.S.**, Editor, *Electronic Journal of Chemistry*, 2004-2018.
- **Xu, W.**, Editorial board member, *Journal Modern Chemical Science*, 2018-Present.
- **Xu, W.**, Editorial board member, *Journal of Biological Medicine*, 2015-Present.
- **Xu, W.**, Editorial board member, *Journal of Molecular and Translational Medicine*, 2015-Present.
- **Xu, W.**, Editorial board member, *Computational Biology and Bioinformatics*, 2012-Present.
- **Xu, W.**, Editorial board member, *Journal of Materials*, 2012-Present.
- **Wang, Y.**, Editorial board member, *Journal of Bioanalysis & Biomedicine*, 2017-Present.
- **Wang, Y.**, Editorial board member, *Polymers*, 2018-Present.
- **Wang, Y.**, Editorial board member, *Journal of Bioanalysis & Biomedicine*, 2017-Present.
- **Yan, H.**, Editorial board member of *The Journal of Chemistry and Allied Research*, 2018-Present

Publications, Presentations

Journal Papers Published

2020

1. Lian, Q., Yao, L., Ahmad, Z.U., Gang, D.D., Konggadinata, M.I., **Gallo, A.A.** & Zappi, M.E. (2020). Enhanced Pb(II) adsorption onto functionalized ordered mesoporous carbon (OMC) from aqueous solutions: the important role of surface property and adsorption mechanism. *Environmental Science and Pollution Research International*, **27**(19), 23616-23630. doi:10.1007/s11356-020-08487-9
2. Go, L.C., Depan, D., Holmes, W.E., **Gallo, A.A.**, **Knierim, K.D.**, Bertrand, T. & Hernandez, R. (2020). Kinetic and thermodynamic analyses of the corrosion inhibition of synthetic extracellular polymeric substances. *PeerJ Materials Science*, **2**, e4. doi:10.7717/peerj-matsci.4
3. Smith, D.S., Alexis, D.N., Fronczek, R. R. & **Junk T.** (2020). 10*H*-Pyrazino[2,3-*b*][1,4]benzotellurazine, a Novel Tellurium-Containing Heterocyclic System. *Heteroatom Chemistry*, **2020**, 1765950. doi:10.1155/2020/1765950
4. Alburquerque, P. R., Ramachandran, R., **Junk, T.** & **Karsili, T.N.V.** (2020). Hydrogen-Deuterium Exchange in Basic Near-Critical and Supercritical Media: An Experimental and Theoretical Study. *The Journal of Physical Chemistry A*, **124**(13), 2530-2536. doi:10.1021/acs.jpca.9b10892
5. Léger, S., **Marchetti, B.**, Ashfold, M.N.R., & **Karsili, T.N.V.** (2020). The Role of Norrish Type-I Chemistry in Photoactive Drugs: An *ab initio* Study of a Cyclopropanone-Enediyne Drug Precursor. *Frontiers in Chemistry*, **8**, 596590. doi:10.3389/fchem.2020.596590
6. Hansen, C., **Marchetti, B.**, **Karsili, T.N.V.** & Ashfold, M.N.R. (2020). Ultraviolet Photodissociation of Gas-Phase Transition Metal Complexes: Dicarboxylcyclopentadienyliron(II). *Molecular Physics*, **119**(1-2), e1813343. doi:10.1080/00268976.2020.1813343
7. Tran, J.B., McCoy, J.C., Bailey, L.M., McDaniel, B.P., **Simon, R.L.**, **Marchetti, B.** & **Karsili, T.N.V.** (2020). Affordable Set-Up for Studying Photochemistry in Action in Undergraduate Teaching Laboratories. *Journal of Chemical Education*, **97**(8), 2203-2211. doi:10.1021/acs.jchemed.0c00354
8. **Karsili, T.N.V.** & **Marchetti, B.** (2020). Oxidative Addition of singlet oxygen to model building-blocks of the Aerucyclamide A Peptide: A first principles approach. *Journal of Physical Chemistry A*, **124**(3), 498-504. doi:10.1021/acs.jpca.9b10285
9. Singh, R., **Karsili, T.N.V.** & **Srivastava, R.S.** (2020). Copper-catalyzed enantioselective direct α -C-H amination of β -dicarbonyl derivatives with aryl hydroxylamines and mechanistic insights. *Molecular Catalysis*, **493**, 111067. doi:10.1016/j.mcat.2020.111067
10. Klerks, P.L., Kascak, A., Cazan A.M., Deb Adhikary, N., Marco, F., & **Louka, F.R.** (2020). A mesocosm assessment of the effect of bioturbation by the ghost shrimp (*Lepidophthalmus louisianensis*) on the fate of petroleum hydrocarbons in the intertidal zone. *Environmental Toxicology and Chemistry*, **39**(3), 637-647. doi:10.1002/etc.4652

11. Mautner, F.A., Fischer, R.C., Torvisco, A., Henary, M.M., **Louka, F.R., Massoud, S.S.** & Salem, N.M.H. (2020). Five-coordinated Geometries from Molecular Structures to Solutions in Copper(II) Complexes Generated from Polydentate-*N*-donor Ligands and Pseudohalides. *Molecules*, **25**(15), 3376. doi:10.3390/molecules25153376
12. **Louka, F.R.**, Haq, S.J., Guidry, H.R., Williams, B.R., Henary, M.M., Fischer, R.C., Torvisco, A., **Massoud, S.S.**, & Mautner, F.A. (2020). Polynuclear and coordination polymers of copper(II) complexes assembled by flexible polyamines and bridging rigid *N*-heterocyclic multicarboxylates. *Inorganic Chimica Acta*, **500**, 119240. doi:10.1016/j.ica.2019.119240
13. Mautner, F.A., Bierbaumer, F., Gyurkac, M., Fischer, R.C., Torvisco, A., **Massoud, S.S.**, & Vicente, R. (2020). Synthesis and characterization of Lanthanum(III) complexes containing 4,4,4-trifluoro-1-(naphthalen-2yl)butane-1,3-dionate. *Polyhedron*, **179**, 114384. doi:10.1016/j.poly.2020.114384
14. Mautner, F. A., Fischer, R. C., Williams, B.R., Massoud, S.S., Salem, N.M.H. (2020). Hexnuclear cadmium(II) cluster constructed from Tris(2-methylpyridyl)amine (TPA) and azides. *Crystals*, **10**(4), 317. doi:10.3390/cryst10040317
15. Mautner, F.A., Jantscher, P.V., Fischer, R.C., Torvisco, A., Reichmann, K. & **Massoud, S.S.** (2020). Syntheses, structural characterization, and thermal behaviour of metal complexes with 3-aminopyridine as co-ligands. *Transition Metal Chemistry*, **2020**. doi:10.1007/s11243-020-00436-2
16. **Massoud, S.S.**, Perez, Z.E., Courson, J.R., Fischer, R.C., Mautner, F.A., Vančo, J., Čajan, M. & Trávníček, Z. (2020). Slow magnetic relaxation in penta-coordinate cobalt(II) field-induced single-ion magnets (SIMs) with easy-axis magnetic anisotropy. *Dalton Transactions*, **49**(33), 11715-11726. doi:10.1039/D0DT02338H
17. Singh, R., Whittington, A. & **Srivastava, R.S.** (2020). Molybdenum (VI)-catalyzed dehydrative construction of C-O and C-S bonds formation via etherification and thioetherification of alcohols and thiols. *Molecular Catalysis*, **492**, 110954. doi:10.1016/j.mcat.2020.110954
18. **Wang, Y.**, Clay, A. & Nguyen, M. (2020). ATRP by continuous feeding of activators: Limiting the end-group loss in the polymerizations of methyl methacrylate and styrene. *Polymer*, **188**, 122097. doi:10.1016/j.polymer.2019.122097
19. **Wang, Y.**, Nguyen, M., & Gildersleeve, A.J. (2020). Polymers Macromolecular Engineering by Applying Concurrent Reactions with ATRP. *Polymers*, **12**(8), 1706. doi:10.3390/polym12081706
20. Xu, N, Coco, C.A., Wang, Y., Su, T., **Wang, Y.**, Peng, L. Zhang, Y., Liu, Y., Qiao, J. & Zhou, X.-D. (2020). Electro-conversion of methane to alcohols on “capsule-like” binary metal oxide catalysts. *Applied Catalysis B: Environmental*, **282**, 119572. doi:10.1016/j.apcatb.2020.119572
21. **Xu, W.**, Xie, X.-J., Faust, A.K., Liu, M., Li, X., Chen, F., Naquin, A.A., Walton, A.C., Kishbaugh, P.W., & Ji, J.-Y. (2020). All-Atomic Molecular Dynamic Studies of Human and *Drosophila* CDK8: Insights Into Their Kinase Domains, the LXXLL Motifs, and Drug Binding Site. [Special Issue] *International Journal of Molecular Sciences*, **21**(20), 7511. doi:10.3390/ijms21207511
22. **Xu, W.** & Wang, Y. (2020). Post-translational Modifications of Serine/Threonine and Histidine Kinases and their Roles in Signal Transductions in *Synechocystis* Sp. PCC

6803. *Applied Biochemistry and Biotechnology*, **193**, 687-716. doi:10.1007/s12010-020-03435-2
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 26. Luo, L., LaCoste, J.D., Khamidullina, N.G., Fox, E., Gang, D.D., Hernandez, R. & **Yan, H.** (2020). Investigate interactions of water with mesoporous ceria using *in situ* VT-DRIFTS. *Surface Science*, **691**, 121486. doi:10.1016/j.susc.2019.121486
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2019

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2. Omambala, J. R., McIntyre, E. C. & **Gallo, A.A.** (2019). Comparing the Electrorheological Effect of Polyhedral Silsesquioxane Cage Structures with Different Numbers of Cyanopropyl Functional Groups. *ACS Omega*, **4**(25), 20964-2097. doi:10.1021/acsomega.9b02106
3. Smith, W.E., Franklin, D.V., Goutierrez, K.L., Fronczek, F.R., Mautner F.A. & **Junk, T.** (2019). Organotellurium Chemistry: Synthesis and Properties of 2-Acylamino- and 2-Arylamino-1,3-benzotellurazoles. *American Journal of Heterocyclic Chemistry*, **5**(3), 49-54. doi:10.11648/j.ajhc.20190503.11
4. Mautner, F.A., Fischer, R C., Torvisco, A., Henary, M.M., Milner, A., DeVillier, H., **Karsili, T.N.V.**, **Louka, F.R.** & **Massoud, S.S.** (2019). Steric Effects of Alkyl Substituents at N-Donor Bidentate Amines Direct the Nuclearity, Bonding and Bridging Modes in Isothiocyanato-Copper(II) Coordination Compounds. *Crystals*, **9**(1), 38. doi:10.3390/cryst9010038
5. Mautner, F. A., Jantscher, P., Fischer, R. C., Torvisco, A., Vicente, R., **Karsili, T.N.V.** & **Massoud, S.S.** (2019). Structure, DFT Calculations, and Magnetic Characterization of Coordination Polymers of Bridged Dicyanamido-metal(II) Complexes. *Magnetochemistry*, **5**(3), 41. doi:10.3390/magnetochemistry5030041
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7. Thodika, M., Fennimore, M.A., **Karsili, T.N.V.** & Matsika, S. (2019). Comparative study of methodologies for calculating metastable states of small to medium-sized molecules. *The Journal of Chemical Physics*, **151**(24), 244104. doi:10.1063/1.5134700
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 9. Ashfold, M.N.R., Ingle, R.A., **Karsili, T.N.V.** & Zhang, J. (2019). Photoinduced C-H bond fission in prototypical organic molecules and radicals, *Physical Chemistry Chemical Physics*, **21**(26), 13880-13901. doi:10.1039/C8CP07454B
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 13. **Massoud, S.S., Louka, F.R.,** Tusa, A.F., Bordelon, N.E., Fischer, R.C., Mautner, F.A., Vančo, J., Hošek, J., Dvořák, Z. & Trávníček, Z. (2019). Copper(II) Complexes Based on Tripodal Pyridyl-amine Derivatives as Efficient Anticancer Agents. *New Journal of Chemistry*, **43**(16), 6186-6196. doi:10.1039/C9NJ00061E
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2018

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2. Mieklejohn, V., Depan, D., Murru, S., Perkins, R.S., Fronczek, F.R., & **Srivastava, R.S.** (2018). Ru(III)-TMSO complexes containing azole-based ligands: synthesis and cytotoxicity study. *New Journal of Chemistry*, **42**(9), 6858-6866. doi:10.1039/C7NJ03267F
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7. Murru, S., **Srivastava, R.S.** (2015). Synthesis of Organo Nitrogen Compounds and N-Heterocycles via Allylic C-H Amination. In: *249th ACS National Meeting & Exposition, Denver, CO, March 22-26, 2015*. ID:2125317
8. Murru, S., Lott, C.S., McGough, B., **Srivastava, R.S.** (2015). Fe-Catalyzed Synthesis of 3-Aryl-4-Propenyl Oxazolidines and N-Aryl Aminoalcohols. In: *ACS Joint Southeastern/Southwest Regional Meeting, Memphis, TN, November 4-7, 2015*.
9. Kascak, A., Klerks, P.L., **Louka, F.R., Satbhai, K.M., Graziano, A., Osman, S.** (2015). The interaction between benthic bioturbators and microbes on the fate of hydrocarbons in sediment - 1, sediment characteristics and PAH levels. In: *Gulf of Mexico Oil Spill & Ecosystem Science Conference, Houston, TX, February 16-19, 2015*.
10. Morandi, P., Osman, S., Klerks P.L., **Louka, F.R.** (2015). Investigating the effect of bioturbators vs. ecofriendly adsorbents on pyrene concentrations. In: *Society of Environmental Toxicology and Chemistry (SETAC), South Central Regional Annual Meeting, Lafayette, LA, May 28-30, 2015*.

11. **Louka, F.R.**, Osman, S., Morandi, P., Klerks, P.L. (2015). Comparing the effect of ecofriendly adsorbents and bioturbators on the concentration pyrene. In: *The 2nd International Conference on Past and Present Research Systems of Green Chemistry, Orlando, FL, September 14-16, 2015.*

Conference Presentations

2020

1. Luo, L. & **Yan, H.** (2020). *Investigating CO adsorption on mesoporous Pt/ceria with VT-DRIFTS.* Louisiana Academy of Sciences, Alexandria, LA, March 14.
2. **Karsili, T.N.V.** *Modelling the Chemistry of Atmospheric Oxidants.* University of Louisiana at Lafayette. Lafayette, LA. February 15, 2020.
3. Comeaux, E., Frey, C. & **Karsili, T. N. V.** (2020). *Using First Principles Methods for Modeling the Microscale Mechanical Properties of Biomaterials: A case study for Dental Implants.* National Conference of the American Chemical Society, August 2020.
4. Frederick, V., Ashy, T. & **Karsili, T. N. V.** (2020). *Modeling the Ultrafast Dynamics of Model Eumelanin Chromophores.* National Conference of the American Chemical Society, August 7
5. McCoy, J., Marchetti, B. & **Karsili, T. N. V.** (2020). *An affordable set-up for photochemistry and photophysics experiments in undergraduate teaching and research laboratories.* National Conference of the American Chemical Society, August 7.

2019

1. **Karsili, T.N.V.** *Understanding the Photochemistry of Biologically Relevant Chromophores.* Louisiana Tech University. Ruston, LA. May 20, 2019.
2. Leger, S., Gray, T., Marchetti, B. & **Karsili, T. N. V.** (2019). *A First Principles Study of Photoactive Drug Precursors.* National Conference of the American Chemical Society, March 19.
3. Ma, M., Fu, Y. & **Wang, Y.** (2019). *Synthesis of Bottlebrush (Co)Polymers via Direct "Click" Polymerization of Macromolecules.* ACS National Meeting & Expo. Spring, Orlando, Mar. 31.
4. Haq, S. J., Plaisance, S. & **Louka, F. R.** (2019). *The Efficiency of Waste Materials in Removal of Benzo(a)pyrene Oil Component.* Honors meeting, Lafayette, Louisiana, November 19.
5. Smith, W. E., Franklin, D. V., Goutierrez, K. L., Fronczek, F. R. & **Junk T.** (2019). *Novel Te, N heterocycles: potential precursors to supramolecular frameworks.* 92nd meeting of the Louisiana Academy of Sciences, Alexandria, LA, March 16.
6. Smith, D. S., Alexis, D. N., Fronczek F. R. & **Junk T.** (2019). *Novel Organotellurium Heterocycles Derived from Bis(2-Aminophenyl)ditelluride.* 14th International Conference on the Chemistry of Selenium and Tellurium, Sardinia, Italy, June 3.
7. Alexis D. N. (Presenter), Fronczek F. R. & **Junk, T.** (2019). *Improved Access to Heterocyclic Tellurium Compounds and Their Supramolecular Self-Assembly.* UL Annual Honors Undergraduate Research Conference, Lafayette, LA, Nov. 22.

8. **Louka, F. R., Massoud, S. S.,** Tusa, A. F., Mautner, F. A., Dvořák, Z., Trávníček, Z., Fischer, R., Vanco, J. & Hošek, J. (2019). *Copper(II) Complexes of Tripodal N-donors Pyridyl Ligands as Anticancer Agents*. 19th International Conference on Biological Inorganic Chemistry (ICBIC), Interlaken, Switzerland, August 11.
9. **Massoud, S. S.,** Nossol, Y., Kettenmann, S. D., Williams, B., Milner, A., **Louka, F. R.,** Mautner, F. A. & Kulak, N. (2019). *DNA cleavage and Cytotoxicity of Five-coordinate Cu(II) Complexes Based on Piperazine Bearing Pendant Pyridyl Arms*. 19th International Conference on Biological Inorganic Chemistry (ICBIC), Interlaken, Switzerland, August 11 - 16, **2019**
10. Ma, M., Fu, Y., & **Wang, Y.** (2019). *Synthesis of Bottlebrush (Co)Polymers via Direct “Click” Polymerization of Macromolecules*. ACS National Meeting & Expo. Spring, Orlando, Mar. 31.
11. **Yan, H.,** Luo, L., LaCoste, J., Khamidullina, N. & Fox, E. (2019). *Investigate Interactions of Water with Mesoporous Ceria using in situ VT-DRIFTS*. Gordon Research Conference- 2019-Crystal Growth and Assembly, Southern New Hampshire University, Manchester, NH, June 23.
12. Luo, L. & **Yan, H.** (2019). *Investigating Surfaces of Mesoporous Ceria with VT-DRIFTS*. Louisiana Academy of Sciences, Baton Rouge, LA, March 16.

2018

1. **Karsili, T.N.V.** *Modelling the photophysics and photochemistry of biological chromophores*. University of Louisiana at Lafayette. Lafayette, LA, February 20, 2018.
2. **Karsili, T.N.V.** *Modelling the photophysics of biological chromophores: As step towards cancer therapy and prevention*. University of Louisiana at Lafayette. Lafayette, LA, August 29, 2018.
3. **Karsili, T.N.V.** *Mechanistic insights into the photoinduced DNA and RNA damage in the gas phase and in bulk solution*. Faraday Discussions: Photoinduced processes in nucleic acids and proteins. Kerala, India. January 13, 2018.
4. Perdrier, C., Tran, P., Nguyen, V., Huynh, B. Nelson A. & **Gallo, A. A.** (2018). *Studies in the synthesis of L-fructose from L-arabinose*. 92nd Louisiana Academy of Sciences Meeting, Alexandria, LA, March 16.
5. Fox, E., Luo, L., Rodriguez, S. & **Yan, H.** (2018). *Synthesis of mesoporous metal oxides-an example for undergraduate research*. Southwest Catalysis Society and North American Catalysis Society, Baton Rouge, LA, December 13.
6. Chen, D., Galhenage, R.P., **Yan H.,** Le, D., Rawal, T. B. & Rahman, T. S. (2018). *Understanding the growth and chemical activity of titania-supported MoSx clusters*. AVS International Symposium, Long Beach, CA, October 22.
7. **Yan, H.** (2018). *Synthesis and characterization of mesoporous ceria-based materials as potential catalysts for LT-WGSR*. Gordon Research Conference-catalysis, New London, NH, June 26.
8. LaCoste, J., Khamidullina, N. G., Luo, L. A. & **Yan H.** (2018). *Synthesis and characterization of mesoporous CeO₂*. Louisiana Academy of Sciences, Alexandria, LA, March 10.
9. Arcement, A.; **Louka, F. R.** & Konur, C. L. (2018). *The relation between algae and natural antioxidant*. 256th ACS National Meeting, Boston, Massachusetts, August 19 - 23.

10. **Louka, F. R.** & Malinski T. (2018). *Nano- and micro-sensors in determination of cardiovascular system lifespan*. International Conference on Nanomedicine and Nanotechnology Rome, Italy, August 21-22.
11. Silar, N. L., Larson, B. A., Fronczek, F. R. & **Junk, T.** (2018). *Advances in the synthesis of Te, N-containing heterocycles: Potential building blocks for supramolecular frameworks*. 255th National Meeting of the American Chemical Society, New Orleans, LA, March 18-22.
12. Franklin, D. V., Goutierrez, K. L., Sandhu, H. S., Fronczek, F. R. & **Junk, T.** (2018). *Synthesis and self-assembly of benzo-1,3-tellurazoles*. 73rd Annual Southwest Regional Meeting of the American Chemical Society, Little Rock, AR, Nov. 7-10.
13. **Yan, H.** (2018). *Probing mesoporous ceria surfaces with VT-DRIFT*. Faculty Retreat-IMRI, Lafayette, LA, December 10.
14. **Massoud, S. S.** (2018). *DNA cleavage by efficient artificial nucleases and role of the steric effect*. Palacky University, Regional Center of Advanced Technologies and Materials, Olomouc-Czech Republic, September 12.
15. **Massoud, S. S.** (2018). *DNA Cleavage by efficient artificial nucleases and role of the steric effect*. Graz University of Technology, Institute of Physical and Theoretical Chemistry, Graz-Austria, September 10.
16. **Massoud, S. S.** (2018). *Cancer and Cu(II) complexes as potential anticancer agents*. Alexandria University, Department of Chemistry, Alexandria-Egypt, July 18.
17. **Massoud, S. S.** (2018). *DNA Cleavage by efficient artificial nucleases and role of the steric effect*. The American University at Cairo (AUC), Department of Chemistry, Cairo-Egypt, July 4.

2017

1. **Massoud, S. S.** (2017). *Development of Efficient Artificial Nucleases for DNA Cleavage by Metal(II) Complexes*. Alexandria University, Alexandria-Egypt, September 23-27.
2. **Massoud, S. S.** (2017). *Development of Efficient Artificial Nucleases for DNA Cleavage Based on Pyridyl Tripod Cobalt(II) Complexes Invited Speaker at the 18th International Conference on Biological Inorganic Chemistry*. ICBIC-18, Florianopolis – Brazil, July 31.
3. **Louka, F. R.** & Malinski T. (2017). *Assessing nano-sensors in determination of the degree of endothelial dysfunction and lifespan of the cardiovascular system*. World Congress and Expo on Nanotechnology and Nanoengineering, Dubai, UAE, March 25.
4. Walker, K. E., Silar, N. L., Fronczek F. R. & **Junk T.** (2017). *Synthesis of Organotellurium Precursors for Supramolecular Frameworks*. 90th meeting of the Louisiana Academy of Sciences, Ruston, LA, March 11.
5. **Louka, F. R., Junk T. & Massoud S. S.** (2017). *DNA Cleavage by Bicompartamental Dinuclear Metal(II) Complexes*. International Conference on Biological Inorganic Chemistry. Florianópolis, Brazil, July 31.
6. Walker, K. E., Silar, N. L., Fronczek F. R. & **Junk T.** (2017). *Advances in the Synthesis of Organotellurium Heterocycles: Towards Novel Supramolecular Frameworks*. 73rd Annual Southwest Regional Meeting of the American Chemical Society, Lubbock, TX, October 29 – November 1.

7. **Srivastava, R. S.** (2017). *Transition metal-catalyzed C-H amination of alkenes*. 18th Tetrahedron Symposium, Budapest, Hungary, June 26.
8. **Louka, F. R.** & Malinski, T. (2017). *Endothelial Cells Dysfunction and Cardiovascular System Life Span*. International Conference on Chemistry Progress for Sustainable Development (ICCPSD 2017), Alexandria, Egypt, September 23-27.
9. **Yan, H.** (2017). *Nanoporous materials and their applications*. Gordon Research Conference, Proctor Academy, Andover, NH, August 20.
10. Barbier, N. LaCoste, J. **Yan, H.** (2017). *Spectroscopic studies on CTAB-lysozyme-Vitamin C*. 253th American Chemical Society National meeting, San Francisco, CA, April 17.

2016

1. **Xu, W.** (2016). *Function and Structure of CBP and NCOA*. Beifang University of Nationality, Yinchuan, China, June 23.
2. **Srivastava, R. S.** (2016). *Metal-catalyzed asymmetric allylic amination*. International Conference on Industrial Chemistry, New Orleans, LA, June 27
3. **Srivastava, R. S.** (2016). *Metal-catalyzed asymmetric C-H amination of alkenes*. 27th International Conference on Organometallic Chemistry (ICOMC), Melbourne, Australia, July 17.
4. **Massoud, S. S.** (2016). *Artificial nucleases for efficient DNA cleavage by mono- and di-nuclear metal(II) complexes*. The 6th International Conference on Nuclei Acid-Protein Chemical and Structural Biology for Novel Drug Discovery, Chingdu-China, May 26.
5. Murru, S. & **Srivastava, R. S.** (2016). *Pd-catalyzed synthesis of 2-acylindolines via intramolecular Heck-coupling and C-H oxidation*. ACS Southwest Regional Meeting (SWRM) Galveston, TX, November 10.
6. Odoux, A., Jindal, D., Tamas, T. C., Lim, B. W. H., Pollard D. & **Xu, W.** (2016). *Experimental and molecular dynamics studies showed the CBP KIX mutation affects the stability of CBP:c-Myb complex*. 90th Annual Meeting of Louisiana Academy Alexandria, LA, April 23.
7. Luo, L., Chistoserdov, A., Savikhin, S., Golbeck, J. H., **Xu, W.** (2016). *A hydrogen bond to the A0 chlorophyll a molecule of Photosystem I influences the spectral properties of A0*. South Central Branch American Society of Microbiology 2016 Annual Conference, Lafayette, La, October 28.
8. **Gallo, A. A.** & Davis, J. (2016). *Selective reduction of carbonyl and nitro groups by fruits and vegetables*. The 89th meeting of the Louisiana Academy of Sciences, Alexandria, LA, April 23.
9. Martin, K., **Gallo, A. A.** & **Junk T.** (2016). *Development of a Supercritical Flow Reactor and its Application for Biodiesel Preparation*. The 89th meeting of the Louisiana Academy of Sciences, Alexandria, LA, April 23.
10. **Gallo, A. A.** & **Junk T.** (2016). *Biodiesel from alligator fat using supercritical methanol via laboratory scale flow reactor*. International Conference on Industrial Chemistry, New Orleans, LA, June 27.
11. Klerks, P. L., Osman, S., Hoag, M. E., Fazal-Ur-Rehman, F., Kascak ,A. & **Louka, F.R.** (2016). *Sediment Bioturbation Affects the Fate of Pyrene in Laboratory*

- Mesocosms*. Gulf of Mexico Oil Spill & Ecosystem Science Conference, Tampa, FL, Feb. 2.
12. **Louka, F. R.**, Osman, S., Cazan, A. M., Morandi, P., Hoag, M. & Klerks, P. L. (2016). *Investigating pyrene levels in water and sediment samples in presence of bioturbators*. 251th American Chemical Society National Meeting, San Diego, CA, March 13.
 13. **Louka, F. R.**, Osman, S., Shaik, A. & Carme, T. *Investigating the efficiency of economical adsorbents in removal of polycyclic aromatic hydrocarbons*. International Conference of Green Chemistry, Las Vegas, Nevada, September 19.
 14. **Louka, F. R.**, Shaik, A., Terracina, T. & Khamidullina, N. (2016). *Effective Ecofriendly Adsorbents for Removal of Individual Polycyclic Aromatic Hydrocarbons*. Honors meeting, Lafayette, Louisiana, November 18 (2016).
 15. Klerks, P. L., Cazan, A., Kascak, A., Shaik, A., Adhikary, N., Chistoserdov, A. & **Louka, F. R.** (2016). *Effects of razor clams and ghost shrimp on the distribution and fate of hydrocarbons in nearshore environments*. Society of Environmental Toxicology and Chemistry (SETAC) World Congress / SETAC North America 37th Annual Meeting, Orlando, FL, Nov 6.

2015

1. **Massoud, S. S.** (2015). Recent Developments of the Fixation of Atmospheric CO₂ by Transition Metals and Lanthanide Complexes. *2nd International Conference on Past and Present Research Systems of Green Chemistry*. Orlando, FL USA, September 14.
2. **Xu, W.** (2015). *Function and Structure of c-Myb and CBP*. Ningxia Medical School, Yinchuan, China July 1.
3. **Xu, W.** (2015). *Function and Structure of Cyanobacterial Photosystem I Complex*. Beifang University of Nationality, Yinchuan, China, June 28-July 3.
4. **Xu, W.** (2015). *Proteins from Fundamentals to Function*. Gordon Research Conferences. Holderness, NH, June 14.
5. **Massoud, S. S., Louka, F. R.**, Mautner, F.A., Naka, Y., & Mikuriya, M. (2014). *Squarato-Bridging Copper(II) Complexes Derived from Polypyridyl Amine Ligands*. Symposium on Coordination Compounds as Molecular Magnetic Materials. Kwansai Gakuin University – School of Science and Technology, Sanda, Japan, October 11.
6. Mikuriyaa, M., Naka, Y., **Junk, T., Massoud, S. S.** & Mautner F., A. *Dinuclear Copper(II) Complexes of 2,6-Bis[bis(pyridine-2-ylmethyl)aminomethyl]-4-methylphenol*. 2014 Symposium on Coordination Compounds as Molecular Magnetic Materials, Kwansai Gakuin University – School of Science and Technology, Sanda, Japan, October 11.
7. **Massoud, S. S.** (2015). *Recent Developments of the Fixation of Atmospheric CO₂ by Transition Metals and Lanthanide Complexes*. The 2nd International Conference on Past and Present Research Systems of Green Chemistry, Orlando, FL USA, September 14.
8. **Massoud, S. S., Louka, F. R., Perkins, R.**, Mautner, F. A. & Terenzi, H. (2015). *Cobalt(II) Complexes as Efficient Artificial Nucleases for Hydrolytic Cleavage of DNA*. 249th ACS Nat. Meeting, Denver, CO, March 22.

9. **Louka, F. R.,** Mautner, F. A. & **Massoud, S. S.** *Carbonato-bridged Copper(II) Complexes formed via Fixation of Atmospheric CO₂.* 249th ACS Nat. Meeting, Denver, CO, March 22-26, INOR 230 (2015).
10. Jefferson, A., **Srivastava, R. S.** (2015). *Re-catalyzed deoxydehydration of diols to olefins using hydroaromatic as reducing agent.* The 6th Joint Great Lakes/Central Regional Meeting of the American Chemical Society. Grand Rapids, MI, May 27.
11. Murru, S. & **Srivastava, R. S.** (2015). *Synthesis of Organo Nitrogen Compounds and N-Heterocycles via Allylic C-H Amination.* ID 2125317, 249th ACS National Meeting, Denver, CO, March 26.
12. Murru, S., Lott, C. S., McGough, B. & **Srivastava, R. S.** (2015). *Fe-Catalyzed Synthesis of 3-Aryl-4-Propenyl Oxazolidines and N-Aryl Aminoalcohols.* ACS Joint Southeastern/Southwest Regional Meeting, Memphis, TN, Nov 4.
13. Nazaretski, E., **Yan, H.,** Lauer, K., Huang, X., **Xu, W.,** Kalbfleisch, S., Li, L., Bouet, N., Zhou, J., Shu, D., Conley, R. & Chu Y. S. (2015). *Nm-scale spatial resolution x-ray imaging with MLL nanofocusing optics: Instrumentational requirements and challenges.* 23rd International Congress on X-ray Optics and Microanalysis (ICXOM23 conference), NY, Sep. 14.
14. Kascak, P., Klerks, P. L. **Louka, F. R.,** Satbhai, K. M., Graziano, A. & Osman, S. (2015). *The interaction between benthic bioturbators and microbes on the fate of hydrocarbons in sediment – 1, sediment characteristics and PAH levels.* Gulf of Mexico Oil Spill & Ecosystem Science Conference, Houston, TX, Feb. 2.
15. Morandi, P., Osman, S., Klerks, P. L. & **Louka, F. R.** (2015). *Investigating the effect of bioturbators vs. ecofriendly adsorbents on pyrene concentrations.* Society of Environmental Toxicology and Chemistry (SETAC) South Central Regional Annual Meeting Lafayette, LA, May 28.
16. **Louka, F. R.,** Osman, S., Morandi, P. & Klerks, P. L. (2015). *Comparing the effect of ecofriendly adsorbents and bioturbators on the concentration pyrene.* International Conference of Green Chemistry, Orlando, FL, September 14.
17. Fronczek, F. R., Liu, Y. & **Junk, T.** (2015). *Tellurium-containing heterocycles: Tellurazoles, tellurazinones, tellurazepinones.* 88th Meeting of the Louisiana Academy of Sciences, Thibodeaux, LA, Mar 14.
18. Sanford, G. Walker, K. E., Fronczek, F. R. & **Junk, T.** (2015). *Organotellurium Chemistry: Synthesis and Characterization of Te, N-Containing Heterocycles.* 71st Southwest Regional Meeting of the American Chemical Society, Memphis, TN, Nov.4.
19. Klerks, P. L., Cazan, A. M., Kascak, A., Osman, S., Hoag, Y. M., Morandi, P. & **Louka, F. R.** (2015). *The interplay between biota and pollutants: Ghost shrimp affect environmental conditions and aromatic hydrocarbon distribution in laboratory mesocosms.* Society of Environmental Toxicology and Chemistry (SETAC) Meeting. Salt Lake City, UT, Nov 1.
20. **Louka, F. R.,** Mautner, F. A. & **Massoud, S. S.** (2015). *Carbonato-bridged copper(II) complexes formed via fixation of atmospheric CO₂.* 249th American Chemical Society National Meeting, Denver, CO, March 22.

Colloquia and Seminar Talks

2020

1. **Karsili, T. N. V.** (2020). *Modelling the Chemistry of Atmospheric Oxidants*. University of Louisiana at Lafayette, LA, Feb. 15.

2019

1. **Karsili, T. N. V.** (2019). *Understanding the Photochemistry of Biologically Relevant Chromophores*. Louisiana Tech University, Ruston, LA, May 20.

2018

1. **Karsili, T. N. V.** (2018). *Modelling the photophysics and photochemistry of biological chromophores*. University of Louisiana at Lafayette, LA, Feb. 20.
2. **Karsili, T. N. V.** (2018). *Modelling the photophysics of biological chromophores: As step towards cancer therapy and prevention*. University of Louisiana at Lafayette, LA, Feb. 20, 2018. University of Louisiana at Lafayette, LA, Aug. 29.
3. **Leonard, A. D.** (2018). *Growing New Online Courses with Sapling Learning*. Macmillan Ed. Tech Week, New York, NY, July 12.
4. **Massoud, S. S.** (2018). *Cancer and Copper(II) Complexes as Potential Anticancer Agents*. University of Louisiana at Lafayette, LA, Oct. 16.
5. **Yan, H.** (2018). *Probing mesoporous ceria surfaces with VT-DRIFT*. Faculty Retreat-IMRI, Lafayette, LA, December 10.
6. **Massoud, S. S.** (2018). *DNA cleavage by efficient artificial nucleases and role of the steric effect*. Palacky University, Regional Center of Advanced Technologies and Materials, Olomouc-Czech Republic, September 12.
7. **Massoud, S. S.** (2018). *DNA Cleavage by efficient artificial nucleases and role of the steric effect*. Graz University of Technology, Institute of Physical and Theoretical Chemistry, Graz-Austria, September 10.
8. **Massoud, S. S.** (2018). *Cancer and Cu(II) complexes as potential anticancer agents*. Alexandria University, Department of Chemistry, Alexandria-Egypt, July 18.

2017

1. **Yan, H.** (2017). *Research activities in Yan's energy and environment Surface Lab (YeeS Lab)*. Faculty Retreat-IMRI, Lafayette, LA, October 26.
2. **Wang, Y.** (2017). *Controlled polymer synthesis towards higher level of perfection*. Department of Chemistry, Louisiana State University, Baton Rouge, LA, Apr. 17.
3. **Massoud, S. S.** (2017). *Development of Efficient Artificial Nucleases for DNA Cleavage by Metal(II) Complexes*. Invited Speaker at Alexandria University, Alexandria-Egypt, September 23.
4. **Massoud, S. S.** (2017). *Development of Efficient Artificial Nucleases for DNA Cleavage by Metal(II) Complexes*. Louisiana State University, Baton Rouge, February 8.
5. **Yan, H.** (2017). *STEM-my journey, my research, and you?* LS-LAMP, Lafayette, LA, October 26.

2016

1. **Karsili, T. N. V.** (2016). *Excited-State Photochemistry and Photophysics of Organic and Biological Chromophores*. University of Warwick, Coventry, United Kingdom. June 16.

2015

1. **Karsili, T. N. V.** (2015). *Catalysts and Fluorescent Sensors*. Heinrich Heine University of Düsseldorf, Düsseldorf, Germany, Dec. 2.
2. **Karsili, T. N. V.** (2015). *Ultrafast Nonadiabatic Dynamics of Organic and Biological Chromophores in the Gas Phase and in Solution*. Centre for Free-Electron Laser, DESY, Hamburg, Germany, July 15.
3. **Xu, W.** (2016). *Function and Structure of CBP and NCOA*. Beifang University of Nationality, Yinchuan, China, June 23.
4. **Xu, W.** (2015). *Function and Structure of c-Myb and CBP*. Ningxia Medical School, Yinchuan, China, July 1.
5. **Xu, W.** (2015). *Function and Structure of Cyanobacterial Photosystem I Complex*. Beifang University of Nationality, Yinchuan, China, June 28.

External Funding (Year of original award)

2020

Karsili, T. N. V. (PI). Quantum chemical studies of the thermal- and photo-chemistry of Criegee intermediates, National Science Foundation, \$248,499 (2020-2023).

Karsili, T. N. V. (PI). Quantum chemical studies of the thermal- and photo- chemistry of Criegee intermediates. BoRSF, \$143,000 (2020-2023).

Zhou, X.-D., **Karsili, T. N. V.**, (Co-PI, 20%), **Wang, Y.** (Co-PI, 20%), Depan, D. High-Efficiency Electrochemical Conversion of CO₂ to Ethylene, DOE NETL DEFE0031919, \$1,250,097 (2020-2022).

Yan, H. (PI). Diffuse Reflectance Infrared Spectroscopic Study of Bonding Mechanisms in Particle/Bonding Agent for 3D Printing Powder. NSF-EPSCoR-SURE, \$5,000 (2020-2021).

2019

Xu, W., and **Yan, H.** are Senior Researchers (4% share each) for Zhou, X.-D., (PI), Acquisition of Focused Ion Beam-Scanning Electron Microscope for the Multidisciplinary Research and Education at the University of Louisiana at Lafayette. NSF-MRI, \$1,425,129 (2019-2022).

2018

(Only continuing external funding during 2018)

2017

Knierim, K. D. & Xu, W. Expanding the Application of Computational Chemistry in Teaching and Research at UL Lafayette. Enhancement Program, Board of Regents Support Fund (LEQSF(2017-18)-ENH-TR-31), \$11,255 (2017 –2018).

Gallo, A. A., Simon, R. L., Junk, T. & Xu, W. Benchtop NMR Spectrometer for Integration into the Chemistry Curriculum. Board of Regents Support Fund, (LEQSF(2017-18)-ENH-TR-30), \$58,366 (2017-2018).

Yan, H. Investigating reaction mechanism of water-gas shift reaction on mesoporous ceria-based catalysts, LA Board of Regents (BoR) Research Competitiveness Subprogram (RCS), \$121,383 (2017-2020).

Wang, Y. Controlled Polymer Synthesis Towards the Precision of Biomacromolecules, \$145,500, BoRSF RCS (2017-2020).

2016

Srivastava, R. S. (PI), C. Murru. Studies on Catalytic Asymmetric C-H Amination of Alkenes. PI-NSF, \$375,000 (2016-1219).

Srivastava, R. S. Enantioselective C-H Amination of Alkenes and Carbonyl Compounds and Novel Application Thereof. Natl. Institutes of Health, \$145,000 (2016-2019).

2015

Raghavan, V., **Xu, W.** (50%) Development of an Algorithm and a Tool for Accurate Comparison of Protein and Chemical 3-D Structures. Board of Regents Support Fund (LEQSF(2015-18)-RD-B-06), \$182,679 (2015-2018).

Xu, W., Bajpai, R. K., Chistoserdov, A. Y., Gallo, A. A., Junk, T., Perkins, R. S. & Srivastava, R. S. Integrating Analytical Ultracentrifugation into Chemistry Teaching and Research Laboratories for Undergraduates Majoring in Chemistry, Biology and Engineering. Board of Regents Support Fund (LEQSF(2015-16)-ENH-TR-34), \$58,366 (2015-2016).

Patents

- **W. Xu,** Method and System for Comparing Proteins in Three Dimensions. U.S. Non-Provisional Patent Application No. 15/725,663, October 5th (2017).
- **R.S. Srivastava** and S. Murru. Method of Producing Chiral N-substituted Allyl Amine Compounds. *US Patent* 1,418,540 (2016).

Journal Referees

- **Gallo, A. A.** *New Journal of Chemistry*, 2017.
- **Gallo, A. A.** *Universal Journal of Chemistry*, 2015.
- **Gallo, A. A.** *Chemosphere*, 2015.

- Gallo, A. A. *Asian Journal of Organic Chemistry*, 2017.
- Junk, T. *Journal of Hazardous Materials*, 2018-pres.
- Junk, T. *Heteroatom Chemistry*, 2017.
- Junk, T. *Current Catalysis*, 2017.
- Junk, T. *Journal of Thermal Analysis and Calorimetry (JTAC)*, 2015.
- Junk, T. *Journal of Hazardous Materials*, 2015.
- Knierim, K. D. *J. Chem. Ed.*, 2018.
- Louka, F. R. *Environments*, 2017 – pres.
- Louka, F. R. *Advances in Chemistry*, 2017 – pres.
- Louka, F. R. *International Journal of Chromatography and Separation Techniques*, 2017 - pres.
- Louka, F. R. *Advances in Chemistry*, 2014 – pres.
- Massoud, S. S. *Frontiers Chem.* 2020.
- Massoud, S. S. *Molecules*, 2012 – pres.
- Massoud, S. S. *Polyhedron*, 2020.
- Massoud, S. S. *Dalton Transactions*, 2017.
- Massoud, S. S. *New J. Chemistry*, 2017.
- Massoud, S. S. *Inorgan. Chem. Acta*, 2017 – pres.
- Massoud, S. S. *Inorganics*, 2017 - pres.
- Massoud, S. S. *J. Coordination Chem.*, 2017 – pres.
- Massoud, S. S. *Inorg. Chem. Commun.*, 2017 – pres.
- Massoud, S. S. *Inorg. Chim. Acta*, 2017.
- Massoud, S. S. *Transition Metal Chem.*, 2017.
- Massoud, S. S. *Crystals*, 2016 - 2017.
- Massoud, S. S. *Commun. Inorg. Synthesis*, 2017
- Massoud, S. S. *Chem. A Eur. J.*, 2016 – pres.
- Massoud, S. S. *J. Mol. Struct.*, 2016 – pres.
- Massoud, S. S. *J. Cluster Chem.*, 2016
- Massoud, S. S. *Dalton Transactions*, 2015-2016.
- Massoud, S. S. *RSC Advances*, 2015-2016.
- Massoud, S. S. *J. Inorg. Biochem.*, 2015-2016.
- Massoud, S. S. *New J. Chemistry*, 2015-2016.
- Massoud, S. S. *Zeitschrift für anorganische und allgemeine Chemie (ZAAC)*, 2015.
- Massoud, S. S. *Comments in Inorg. Chem.*, 2015-2016.
- Massoud, S. S. *Inorg. Chem. Commun.*, 2015-2016.
- Massoud, S. S. *Polyhedron*, 2015-pres.
- Massoud, S. S. *Inorg. Chem.*, 2015.
- Massoud, S. S. *Spectroscopic Letters*, 2015.
- Massoud, S. S. *Chemical Papers*, 2015.
- Massoud, S. S. *Polymers*, 2020.
- Massoud, S. S. *Arabian J. Chemistry*, 2014 – pres.
- Srivastava, R. S. *Journal of Organic Chemistry*, 2017.
- Srivastava, R. S. *Transition Metal Chemistry*, 2017.
- Srivastava, R. S. *Asian Journal of Organic Chemistry*, 2017.

- **Srivastava, R. S.** *Journal of Organic Chemistry*, 2017.
- **Srivastava, R. S.** *Transition Metal Chemistry*, 2017.
- **Srivastava, R. S.** *Asian Journal of Organic Chemistry*, 2017.
- **Srivastava, R. S.** *JACS*, 2015-2016.
- **Srivastava, R. S.** *Organometallics*, 2015-2016.
- **Srivastava, R. S.** *Organic & Biomolecular Chemistry*, 2015-2016.
- **Srivastava, R. S.** *Catalysis Science & Technology*, 2015-2016.
- **Wang, Y.** *Macromolecules*, 2019.
- **Wang, Y.** *Polymers*, 2019.
- **Wang, Y.** *Bioanalysis & Biomedicine*, 2017.
- **Xu, W.** *Inorganica Chimica Acta*, 2017 - press
- **Xu, W.** *EMBO Journal*, 2017.
- **Xu, W.** *International Journal of Biochemistry and Biophysics*, 2017.
- **Xu, W.** *Frontiers in Science, Technology, Engineering and Mathematics*, 2017.
- **Xu, W.** *International Journal of Genetics and Genomics*, 2017.
- **Xu, W.** *Frontiers in Bioengineering and Biotechnology*, 2020.
- **Xu, W.** *GENE*, 2020.
- **Xu, W.** *Proteins and Proteomics*, 2020.
- **Xu, W.** *Annals of Systems Biology*, 2020.
- **Xu, W.** *Frontiers in Oncology*, 2019.
- **Xu, W.** *Frontiers Bioengineering*, 2019.
- **Yan, H.** *Applied Catalysis A*, 2015 - pres.
- **Yan, H.** *Chemical Engineering Science*, 2015 - pres.
- **Yan, H.** *Journal of the Electrochemical Society*, 2015 - pres.
- **Yan, H.** *Catalysts*, 2015 - pres.
- **Yan, H.** *Applied Science*, 2020
- **Yan, H.** *Materials*, 2020.
- **Yan, H.** *Journal of Molecular Liquids*, 2020.
- **Yan, H.** *Air, Soil and Water Research*, 2020.

Other Notable Activities

- **Gallo, A. A.** Coordinator for the French Internship program from University of Poitiers, FRANCE, 2004-present.
- **Gallo, A. A.** Chemistry Advisor and Pre-Pharmacy Advisor for over 70 students and Pre-Med Advisor, 1992-present.
- **Srivastava, R. R.** Supervised seven Post-Doctoral Associates, 2016-2020.
- **A.A. Gallo:** Chair of the chemistry division of the Louisiana Academy of Sciences, 2000-pres.
- **Yan, H.** Panel review for NASA Science Mission Directorate, Maturation of Instruments for Solar System Exploration, 2020NNH20ZDA001N-MATISSE, 2020.
- **Yan, H.** Panel review for NASA Science Mission Directorate, Exoplanets Research Program 2020, NNH20ZDA001N-XRP, 2020.

- **Yan, H.** Conference co-Chair, Vibrational Spectroscopy Characterization, June 26th, NAM26-2019 North American Catalysis Society Meeting, June 23-28, Chicago, Illinois, 2019.

Undergraduate – Notable Figures

- **S.S. Massoud**, supervised 130 undergraduate research students between 2015-2020.
- **F.R. Louka**, supervised 90 undergraduate research students between 2015-2020.

Awards and Honors

- **Gallo, A. A.** Eminent Faculty Award, Dr. Ray P. Authement Excellence in Teaching, 2020.
- **Wang, Y.** Louisiana Library Network LOUIS OER Commons Award, 2020.
- **Xu, W.** Honor Certificate in Recognition of University Service, 2018 – 2019.
- **Louka, F. R.** Eminent Faculty Award, Dr. Ray P. Authement Excellence in Teaching, 2018.
- **Louka, F. R.** Outstanding Faculty of Universities of Louisiana System, 2018.
- **Leonard, A. D.**, Office of Distance Learning Faculty Fellowship Award, 2018. This award supported the purchase of \$15,000 in specialized teaching related software.
- **Leonard, A. D.**, University of Louisiana at Lafayette Advising Award, 2018.
- **Xu, W.** Honor Certificate in Recognition of University Service, 2017 – 2018.
- **Xu, W.** Honor Certificate in Recognition of Achievement in Innovation, 2017 – 2018.
- **Srivastava, R. S.**, Research Excellence Award, UL- Lafayette, 2017.
- **Srivastava, R. S.**, Innovator Award, UL- Lafayette, 2017.
- **Louka, F. R.** Awardee of Royal Society of Chemistry Books for contents. Organization and presentation in ICBIC 18th, Florianópolis, Brazil (2017).
- **Yan, H.** Achievement in Sponsored Research Award, University of Louisiana at Lafayette (2017).
- **Louka, F. R.** Outstanding Teaching Award, Ray Authement College of Sciences (2016).
- **Massoud, S. S.** Outstanding Contribution in Reviewing Papers for *Inorganica Chimica Acta*, Elsevier (2015)
- **Louka, F. R.** Marvin and Warren Boudreaux / BoRSF Professorship in Chemistry #4. (2015- present)
- **Srivastava, R. S.** UL Foundation Award, 2016.
- **W. Xu**, Candidacy on the Fulbright Specialists Roster, the J. William Fulbright Foreign Scholarship Board, the U.S. Department of State's Bureau of Education and Cultural Affairs, and the Council for International Exchange of Scholars, 2012-2017.
- **Louka, F. R.** Summer Research Award Summer, 2012.
- **Louka, F. R.** Marvin and Warren Boudreaux / BoRSF Professorship in Chemistry #4. 2012- present.
- **Xu, W.** Travel Award, National Science Foundation's EPSCoR Award, BoRSF, 2010.
- **Xu, W.** Boudreaux/BORSF Professorship, 2008-2014, 2017-2020.
- **Srivastava, R. S.** Boudreaux/BoR Distinguished Professor, 2001-present.
- **Xu, W.** Boudreaux/BORSF Professorship, 2017-2020.

Other Professional Activities

2020

- **Massoud, S. S.** *Luminescence Emission and Anti-tumor Activity of Lanthanide Complexes*. University Undergraduate Research Mini Grant, \$2,000.

2019

- **Junk, T. & Simon, R. L.** *Purchase of an Infrared Spectrometer for Chemistry*, UL Lafayette STEP Fund, \$23,595.
- **Massoud, S. S.** *DNA Cleavage and Cytotoxicity of Cobalt(II) and Copper(II) Complexes*. University Undergraduate Research Mini Grant, \$2,000.
- **Xu, W.** *Structural and Functional Studies of Photosystem I to Enhance Undergraduate Education and Training through Research*. University Undergraduate Research Mini Grant, \$2,000.

2018

- **Simon, R. L.** *Whiteboards for Montgomery Hall*. UL Lafayette STEP Fund, \$6,372.
- **Junk, T. & Simon, R. L.** *Chemical Reactions with Light: UV Lamps for Photochemical Experiments in Organic Chemistry Labs*. UL Lafayette STEP Fund, \$2,100.
- **Highland, Z. L. & Leonard, A. D.** *Acquisition of Vernier Lapquest for Analytical Chemistry*. UL Lafayette STEP Fund, \$19,015.
- **Xu, W., Gallo, A. A., Knierim, K. D. & Srivastava, R. S.** *Purchase of Micropipettes for Chemistry Laboratory Courses*. UL Lafayette STEP Fund, \$15,540.
- **Simon, R. L. & Gallo, A. A.** *Electric Thermometers*. UL Lafayette STEP Fund, \$15,540.

2017

- **Knierim, K. D.** Secretary of Faculty Senate.
- **Knierim, K. D.** Director of Louisiana Region 2 Science Olympiad.
- **Junk, T.** *ChemDraw chemical structure drawing software for student use and training*. STEP Fund of University of Louisiana at Lafayette, \$4,460.
- **Xu, W. & Wang, Y.** *Purchase of an Incubator and a shaker for Biochemistry Laboratory Courses*. STEP Funds of University of Louisiana at Lafayette, \$8,768.30 (2017).
- **Xu, W. & Yan, H.** *Purchase of Fluorescence Gel Documentation for Chemistry Laboratory Courses*. STEP Fund of University of Louisiana at Lafayette, \$13,986 (2017).
- **Yan, H. & Louka, F. R.** *Bringing Rotary Evaporators for Sample Preparation to Analytical Chemistry Laboratory Courses*. STEP Fund of University of Louisiana at Lafayette, \$ 8,700.
- **Yan, H.** *Improving Precision and Accuracy in Analytical Chemistry Laboratory Courses*. STEP Fund of University of Louisiana at Lafayette, \$5,138.
- **Gallo, A. A.** *Acquisition of a Polarimeter for Chemistry Laboratories* STEP Fund of University of Louisiana at Lafayette, \$525.

- **Simon, R. L & Wang, Y.** *Maker Lab for Montgomery Hall*. STEP Fund of University of Louisiana at Lafayette, \$3,650.
- **Simon, R. L.** *White Boards for Montgomery Hall*. STEP Fund of University of Louisiana at Lafayette, \$6,372.

2016

- **Louka, F. R.** *Economical Micro-scale Vacuum Assisted DigiFILTER Assembly in Chemistry Labs*. STEP Fund of University of Louisiana at Lafayette, \$13,901.
- **Louka, F. R.** *Economical Microscale Equipment in Chemistry Labs*. STEP Fund of University of Louisiana at Lafayette, \$16,843.
- **Xu, W.** *Structural and Functional Studies of Photosystem I to Enhance Undergraduate Education through Research*. UL Undergraduate Research Mini-Grant, \$2,000.
- **Simon, R. L. & Gallo, A. A.** *Organic Chemistry Laboratory Equipment Grant*. STEP Technology Fund, \$3,666.
- **Simon, R. L.** *Purchase of Chemistry Laboratory and Demonstration Equipment*. STEP Technology grant, \$501.64
- **Junk, T. & Gallo, A. A.** *Purchase of an Attenuated Total Reflectance (ATR) Tool for Chemistry to Conduct Infrared Spectroscopy on Solids*, UL STEP Fund, \$5,602.
- **Knierim, K. D.** Director of regional Science Olympiad.
- **Leonard, A. D.** Classified the entire Library of EZTest questions (more than 2,000 questions from Carey, *Organic Chemistry* 10th ed. McGraw Hill, 2017), by Bloom's Taxonomy, difficulty level, topic, and subtopic.

2015

- **Leonard, A.D.,** Langley, C.S. & Roy J. *Achieving A Successful Online STEM Class*. Presentation at Student Retention Summit, University of Louisiana at Lafayette. March 2015.
- **Junk, T.** *Raman Spectroscopy in Chemistry Labs*, UL STEP program, \$10,655.
- **Xu, W.** Judge for Junior Division of Biochemistry Louisiana Region VI Science and Engineering Fair.
- **Xu, W.** Judge for High School Senior Division on Protein Modeling. Louisiana Region II 26th Annual Science Olympiad.
- **Xu, W.** Judge for the Graduate Student Research & Project Symposium. University of Louisiana at Lafayette.
- **Louka, F. R.** *Applying New Techniques in Analytical Chemistry Laboratories*, UL Instructor Mini-grant, \$700.

Graduate Student Production, Graduate Committee Memberships

- **F. R. Louka.** Ph.D. dissertation committee member for Alex Kascak, *Determining the Interactions Between the ghost shrimp *Lepidophthalmus louisianensis* and Crude Oil*, 2020.

- **Massoud, S. S.** External Examiner of two Ph.D. Theses submitted to Alexandria University, Alexandria, Egypt, and one Ph.D. Thesis submitted to University of South Africa, Pretoria, South Africa, 2018.
- **W. Xu**, Member of Ph.D. Committee for Titli Sarkar (LSU), 2018.
- **W. Xu**, Member of Ph.D. Committee for Aniruddha Acharya (LSU), 2018.
- **W. Xu**, Member of Ph.D. Committee for Venkata Sarika Kondra (LSU), 2018.
- **Massoud, S. S.** External Examiner for Ph.D. thesis submitted by N.S.M. Ahmed. Kinetics and Electrochemical Studies on Some Ion-Pairs in Mixed Solvents, Alexandria University, Alexandria, Egypt, 2015.
- **R.S. Srivastava.** Thesis evaluation of M. Ganesh, Indian Institute of Technology. Guwahati, Assam, India, 2015.
- **R.S. Srivastava.** Thesis evaluation of A.K. Visvesvaraya, Technological University, Belagavi, Karnataka, India, 2015.
- **W. Xu.** Member of Ph.D. committee, R. Hill, Ethanol-Adenylyl Cyclase Pathway (LSU), 2015.
- **W. Xu.** Member of committee, S. Singh, Spatial relationships based protein structure representation for alignment free comparison, local structural motif discovery and hierarchical classification, 2015.