

Muhammed Faiz Yousufuddin
Curriculum Vitae

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**Professional
Positions**

Sept 2023-present	UNT Dallas	Dallas, TX
Associate Professor of Chemistry (with tenure)		
Sept 2019-present	UNT Dallas	Dallas, TX
Program Coordinator, Department of Natural Sciences		
Sept 2019-present	UNT Dallas	Dallas, TX
Faculty Director, Joint Admission Medical Program		
Sept 2019-August 2023	UNT Dallas	Dallas, TX
Assistant Professor of Chemistry		
Sept 2015-August 2019	UNT Dallas	Dallas, TX
Lecturer of Chemistry		

Education/Training

Dec 2008-Aug 2015	UT Arlington	Arlington, TX
Director: Center for Nanostructured Materials		
July 07-Dec 08	NIST	Gaithersburg, MD
Research Associate		
Jan 06-June 07	Rutgers University	Piscataway, NJ
Research Associate		
Dec 2005	University of Southern California	Los Angeles, CA
Ph.D. with a Major in Chemistry		
May 2000	University of South Carolina	Columbia, SC
B.S. with a Major in Chemistry		

Courses Taught at UNT Dallas (2015-present)	CHEM 1360: Context of Chemistry (Hybrid) BIOL 1132: Environmental Science (Online) CHEM 1420/1440: General Chemistry I and II (including labs) CHEM 3370/3380: Organic Chemistry I and II (including labs) BIOC 3300: Biochemistry (Hybrid) CHEM 4670: Introduction to Medicinal Chemistry (Hybrid) BIOL 4120: Environmental Chemistry (Hybrid) GEOG 1710: Earth Science (Online) BIOL 3090: Mentored Undergraduate Research
Professional Memberships	American Chemical Society American Crystallographic Association
Awards Received	USC Excellence in Teaching (2004) UNT Dallas Faculty Research Award (2016) UNT Dallas Outstanding Service to Students Award (2021)
UNT Dallas Service Activities	Head of Department of Natural Sciences (Fall 2019-present) Faculty Senator (May 2020-present) Chair, LAS Curriculum Committee (February 2020-May 2022) Joint Admissions Medical Program Director (Fall 2020-Present) Pre-Health Advisor Advisor for Chemistry Club Advisor for Pre-Health Professionals Club Faculty Marshal (2017-2019) University Core Curriculum Committee University IT/Libraries Committee University Teaching Evaluation Committee University Faculty Awards Committee University International Committee LAS Curriculum Committee Teaching Observation Committee DLIT Advisory Committee
Community Service Activities	Co-Editor: Acta Crystallographica Section C Reviewer: Applied Organometallic Chemistry Reviewer: Inorganic and Nano-Metal Chemistry Reviewer: Marine Drugs Reviewer: Oak Ridge National Laboratory Neutron Program Reviewer: US Civilian Research and Development grant program
Research Interests	Synthesis and Characterization of Hydrogen Storage Materials Crystal Growth and Engineering X-ray Crystallography

Funded Grant Applications

Joint Admission Medical Program at UNT Dallas (2020-2023) **\$36,891**
Joint Admission Medical Program at UNT Dallas (2023-2027) **\$49,852**

Full Publication List

Peer-Reviewed Publications

Before UNT Dallas

- (1) “The Binary Group 4 Azides $[\text{Ti}(\text{N}_3)_4]$, $[\text{P}(\text{C}_6\text{H}_5)_4][\text{Ti}(\text{N}_3)_5]$, and $[\text{P}(\text{C}_6\text{H}_5)_4]_2[\text{Ti}(\text{N}_3)_6]$ and on Linear Ti-N-NN Coordination” by Ralf Haiges, Jerry A. Boatz, Stefan Schneider, Thorsten Schroer, Muhammed Yousufuddin, and Karl O. Christe, *Angew. Chem. Int. Ed.* **2004**, 43, 3148
- (2) “Polyazide Chemistry: Preparation and Characterization of $\text{As}(\text{N}_3)_5$, $\text{Sb}(\text{N}_3)_5$, and $[\text{P}(\text{C}_6\text{H}_5)_4][\text{Sb}(\text{N}_3)_6]$ ” by Ralf Haiges, Jerry A. Boatz, Ashwani Vij, Vandana Vij, Michael Gerken, Stefan Schneider, Thorsten Schroer, Muhammed Yousufuddin, and Karl O. Christe, *Angew. Chem. Int. Ed.* **2004**, 43, 6676.
- (3) “Synthetic Control of Pt...Pt Separation and Photophysics of Binuclear Platinum Complexes” by Biwu Ma, Jian Li, Peter I. Djurovich, Muhammed Yousufuddin, Robert Bau, and Mark E. Thompson, *J. Am. Chem. Soc.* **2005**, 127, 28.
- (4) “Synthetic Control of Excited State Properties in Cyclometalated Ir(III) Complexes Using Ancillary Ligands” by Jian Li, Peter I. Djurovich, Bert D. Alleyne, Muhammed Yousufuddin, Nam N. Ho, J. Christopher Thomas, Jonas C. Peters, Robert Bau, and Mark E. Thompson, *Inorg. Chem.* **2005**, 44, 1713
- (5) “Synthesis and X-ray and Neutron Structures of $\text{Zr}[(\mu\text{-H})_2\text{BC}_8\text{H}_{14}]_4$ ” by Errun Ding, Bin Du, Edward A. Meyers, Sheldon G. Shore, Muhammed Yousufuddin, Robert Bau, and Garry J. McIntyre, *Inorg. Chem.* **2005**, 44, 2459.
- (6) “Polyazide Chemistry: The First Binary Group 6 Azides, $\text{Mo}(\text{N}_3)_6$, $\text{W}(\text{N}_3)_6$, $[\text{Mo}(\text{N}_3)_7]^-$, and $[\text{W}(\text{N}_3)_7]^-$, and the $[\text{NW}(\text{N}_3)_4]^-$ and $[\text{NMo}(\text{N}_3)_4]^-$ Ions” by Ralf Haiges, Jerry A. Boatz, Robert Bau, Stefan Schneider, Thorsten Schroer, Muhammed Yousufuddin, and Karl O. Christe, *Angew. Chem. Int. Ed.* **2005**, 44, 1860.
- (7) “Piano Stool Complexes Containing the Bulky Pentaphenylcyclopentadienyl(C_5Ph_5) Ligand: Preparation, Characterization and X-ray Structure of $\text{C}_5\text{Ph}_5\text{Zr}(\text{N}(\text{CH}_3)_2)_3$ (**I**)” by Jin An, Luis Urrieta, Rayshonda Williams, Wayne Tikkanen, Robert Bau, and Muhammed Yousufuddin, *J. Organomet. Chem.* **2005**, 690, 4376.
- (8) “Neutron Diffraction Study of $\text{OsH}_3\text{Cl}(\text{PPh}_3)_3$: A Complex Containing a Highly Stretched Dihydrogen Ligand” by Muhammed Yousufuddin, Tingbin Wen, Sax A. Mason, Garry J. McIntyre, Guochen Jia, and Robert Bau, *Angew. Chem. Int. Ed.* **2005**, 44, 7227.

- (9) “Blue and Near-UV Phosphorescence from Iridium Complexes with Cyclometalated Pyrazolyl or N-Heterocyclic Carbene Ligands” by Tissa Sajoto, Peter I. Djurovich, Arnold Tamayo, Muhammed Yousufuddin, Robert Bau, Mark E. Thompson, Russell J. Holmes, and Stephen E. Forrest, *Inorg. Chem.* **2005**, 44, 7992.
- (10) “Experimental Evidence for Linear Metal-Azido Coordination: The Binary Group 5 Azides $[\text{Nb}(\text{N}_3)_5]$, $[\text{Ta}(\text{N}_3)_5]$, $[\text{Nb}(\text{N}_3)_6]^-$, and $[\text{Ta}(\text{N}_3)_6]^-$, and 1:1 Acetonitrile Adducts $[\text{Nb}(\text{N}_3)(\text{CH}_3\text{CN})]$ and $[\text{Ta}(\text{N}_3)_5(\text{CH}_3\text{CN})]$ ” by Ralf Haiges, Jerry A. Boatz, Muhammed Yousufuddin, and Karl O. Christe, *Angew. Chem. Int. Ed.* **2006**, 45, 4830.
- (11) “Preparation, Characterization, and Crystal Structures of SO_3NHF^- and SO_3NF_2^- Anions” by Ralf Haiges, Ross Wagner, Jerry A. Boatz, Muhammed Yousufuddin, Markus Etzkorn, G. K. Surya Prakash, Karl O. Christe, Robert D. Chapman, Mark F. Welker, and Charles B. Kreutzberger, *Angew. Chem. Int. Ed.* **2006**, 45, 5179.
- (12) “Intramolecular Arene Epoxidation by Phosphadioxiranes” by Dong Zhang, Ruomei Gao, Shabana Afzal, Mario Vargas, Shantanu Sharma, Alison McCurdy, Muhammed Yousufuddin, Timothy Stewart, Robert Bau, and Matthias Selke, *Org. Lett.* **2006**, 8, 5125.
- (13) “Syntheses and Structures of Asymmetric Bis(silyl) Niobocene Hydrides” by Konstantin Yu. Dorogov, Muhammed Yousufuddin, Nam-Nhat Ho, Andrei V. Churakov, Lyudmila G. Kuzmina, Arthur J. Schultz, Sax A. Mason, Judith A. K. Howard, Robert Bau and Georgii I. Nikonov, *Inorg. Chem.* **2007**, 46, 147.
- (14) “Monocapped Trigonal-Prismatic Transition-Metal Heptaazides: Synthesis, Properties, and Structures of $[\text{Nb}(\text{N}_3)_7]^{2-}$ and $[\text{Ta}(\text{N}_3)_7]^{2-}$ ” by Ralf Haiges, Jerry A. Boatz, Muhammed Yousufuddin, and Karl Christe, *Angew. Chem. Int. Ed.* **2007**, 46, 2869.
- (15) “Cyclometallated Iridium and Platinum Complexes with Noninnocent Ligands” by Bhavna Hirani, Jian Li, Peter I. Djurovich, Muhammed Yousufuddin, Jonas Oxgaard, Petter Persson, Scott R. Wilson, Robert Bau, William A. Goddard III, and Mark E. Thompson, *Inorg. Chem.*, **2007**, 46, 3865.
- (16) “Chelation of Vanadium (V) by Difluoromethylene Bisphosphonate, a Structural Analog of Pyrophosphate” by Debbie C. Crans, Alvin A. Holder, Tapan Kumar Saha, G. K. Surya Prakash, Muhammed Yousufuddin, Roman Kultyshev, Rehana Ismail, Myron F. Goodman, James Borden, and Jan Florian, *Inorg. Chem.*, **2007**, 46, 6723.

(17) "Remediation of the Protein Data Bank Archive" by Kim Henrick, Zukang Feng, Wolfgang Bluhm, Dimitrios Dimitropoulos, Jurgen F. Doreleijers, Shuchismita Dutta, Judith L. Flippen-Anderson, John Ionides, Chisa Kamada, Eugene Krissinel, Cathy Lawson, John L. Markley, Haruki Nakamura, Richard Newman, Yukiko Shimizu, Jawahar Swaminathan, Sameer Valenkar, Jeramia Ory, Eldon L. Ulrich, Wim Vranken, John Westbrook, Reiko Yamashita, Huanwang Yang, Jasmine Young, Muhammed Yousufuddin, and Helen M. Berman, *Nucl. Acids Res.*, **2008**, 36, D426.

(18) "Neutron Diffraction Studies on 4-Coordinate Hydrogen Atom in an Yttrium Cluster" by Muhammed Yousufuddin, Matthias Gutmann, Oliver Tardif, Jens Baldamus, Zhaomin Hou, Sax A. Mason, Garry J. McIntyre and Robert Bau, *J. Am. Chem. Soc.*, **2008**, 130, 3888.

(19) "Phosphorescent Platinum Dyads with Cyclometalated Ligands: Synthesis, Characterization and Photophysical Studies" Biwu Ma, Peter I. Djurovich, Muhammed Yousufuddin, Robert Bau, and Mark E. Thompson, *J. Phys. Chem. C*, **2008**, 112, 8022.

(20) "Crystal Structure of $\text{Li}_2\text{B}_{12}\text{H}_{12}$: an Intermediate Species in the Decomposition of LiBH_4 " by J. H. Her, M. Yousufuddin, W. Zhou, S. S. Jalisatgi, J. G. Kulleck, J. A. Zan, S. J. Hwang, R. C. Bowman, Jr., and T. J. Udovic, *Inorg. Chem.*, **2008**, 47, 9757.

(21) "Crystal Structure, Inelastic Neutron Studies, and DFT Calculations of $\text{Li}_2\text{B}_{12}\text{H}_{12} \cdot 4\text{H}_2\text{O}$ " by Muhammed Yousufuddin, Jae-Hyuk Her, Wei Zhou, Satish S. Jalisatgi, and Terrence J. Udovic *Inorg. Chim. Acta*, **2009**, 362, 3155.

(22) "Cyclometalation of 6-Phenyl-2,2'-Bipyridine and Iridium", by K. J. H. Young, M. Yousufuddin, D. H. Ess, and R. A. Periana *Organometallics*, **2009**, 28, 3395.

(23) "An Approach to the Oxazoline-Containing Fragment of the Oroidin Dimer Nagelamide R" by Sabuj Mukherjee, Rasapalli Silvappa, Muhammed Yousufuddin, and Carl J. Lovely, *SYNLETT*, **2010**, 5, 817.

(41) "Acceleration of Nucleophilic CH Activation by Strongly Basic Solvents", by Brian G. Hashiguchi, Kenneth J. H. Young, Muhammed Yousufuddin, William A. Goddard, III and Roy A. Periana, *J. Am. Chem. Soc.*, **2010**, 132, 12542.

(24) "Scorpionates Bearing Nitro Substituents: Mono-, Bis- and Tris-(3-Nitro-Pyrazol-1-yl)Borate Ligands and their Copper(I) Complexes", by Maura Pellei, Grazia Papini, Giancarlo Gioia Lobbia, Simone Ricci, Muhammed Yousufuddin, H. V. Rasika Dias and Carlo Santini, *Dalton Trans.*, **2010**, 39, 8937.

(25) "Asymmetric Total Synthesis of *ent*-Cyclooroidin", by Sabuj Mukherjee, Rasapalli Sivappa, Muhammed Yousufuddin, and Carl J. Lovely, *Org. Lett.*, **2010**, 12, 4940.

- (26) "Diversity-Oriented Approach to Pyrrole-Imidazole Alkaloid Frameworks", by Manojkumar R. Bhandari, Muhammed Yousufuddin, and Carl J. Lovely, *Org. Lett.*, **2011**, 13, 1382
- (27) "Isolable, Gold Carbonyl Complexes Supported by N-heterocyclic Carbenes", by Chandrakanta Dash, Peter Kroll, Muhammed Yousufuddin, and H. V. Rasika Dias, *Chem. Comm.*, **2011**, 47, 4478.
- (28) "Cationic Gold Carbonyl Complexes on a Phosphine Support", by H. V. Rasika Dias, Chandrakanta Dash, Muhammed Yousufuddin, Mehmet Ali Celik, and Gernot Frenking, *Inorg. Chem.*, **2011**, 50, 4253
- (29) "Silver(I) and Copper(I) Complexes Supported by 1,3,5-Triazapentadienyl Ligands", H. V. Rasika Dias, Jaime A. Flores, Maura Pellei, Barbara Moressi, Giancarlo Gioia Lobbia, Shreeyukta Singh, Yoshiro Kobayashi, Muhammed Yousufuddin, and Carlos Santini, *Dalton Trans.*, **2011**, 40, 8569.
- (30) "Iridium Complexes Bearing a PNP Ligand, Favoring Facile C(sp³)-H Bond Cleavage", by Kapil S. Lokare, Robert J. Nielsen, Muhammed Yousufuddin, William A. Goddard III, and Roy A. Periana, *Dalton Trans.*, **2011**, 40, 9094.
- (31) "Alkali and Alkaline-earth Metal Dodecahydro-*closo*-dodecaborates: Probing Structural Variations *via* Neutron Vibrational Spectroscopy", by Nina Verdal, Wei Zhou, Vitalie Stavila, Jae-Hyuk Her, Muhammed Yousufuddin, Taner Yildirim, and Terrence J. Udovic, *J. All. Com.* **2011**, 509S, S694.
- (32) "Crystal Structure of Bis[hydrobis(3-phenylpyrazolyl)(5-phenylpyrazolyl)borate]-zinc(II)" by M. Yousufuddin, J. M. Aslan, and F. M. Macdonnell, *J. Chem. Cryst.* **2011**, 41, 1763.
- (51) "Acyl Hydrazides as Peptid Sub-monmers" by B. K. Sarma, M. Yousufuddin, and T. Kodadek, *Chem. Comm.*, **2011**, 47, 10590.
- (33) "Isolable Tris(alkyne) and Bis(alkyne) Complexes of Gold(I)" by A. Das, C. Dash, M. Yousufuddin, M. A. Celik, G. Frenking, and H. V. R. Dias, *Angew. Chem. Int. Ed.*, **2012**, 51, 3940.
- (34) "Ammosamide D, an Oxidatively Ring Opened Ammosamide Analog from a Marine-derived Streptomyces Variabilis", by Ende Pan, Matthew Jamison, Muhammed Yousufuddin, and John B. MacMillan, *Org. Lett.*, **2012**, 14, 2390.
- (35) "Copper(I) Ethylene Complexes Supported by 1,3,5-Triazapentadienyl Ligands with Electron Withdrawing Groups" by Venkata A. K. Adiraju, Jaime A. Flores, Muhammed Yousufuddin, and H. V. Rasika Dias, *Organomet.*, **2012**, 31, 7926.

- (36) "Synthesis and Biological Activity of Ester- and Amide-functionalized Imidazolium Salts and Related Water-soluble Coinage Metal N-heterocyclic Carbene Complexes", by Maura Pellei, Valentina Gandin, Marika Marinelli, Cristina Marzano, Muhammed Yousufuddin, H. V. Rasika Dias, and Carlo Santini, *Inorg.Chem.*, **2012**, 51, 9873.
- (37) "Total Synthesis of Kealiinines A-C by Jayanta Das, Panduka Koswatta, J. Daniel Jones, Muhammed Yousufuddin, and Carl J. Lovely, *Org. Lett.*, **2012**, 14, 6210.
- (38) "Isolable, Copper(I) Dicarbonyl Complexes Supported by N-heterocyclic Carbenes" by Chandrakanta Dash, Animesh Das, Muhammed Yousufuddin, and H. V. Rasika Dias, *Inorg. Chem.*, **2013**, 52, 1584.
- (39) "Silver(I) and Copper(I) Adducts of a Tris(pyrazolyl)borate Decorated with Nine Trifluoromethyl Groups", by Naleen B. Jayaratna, Igor I. Gerus, Roman V. Mironets, Pavel K. Mykhailuk, Muhammed Yousufuddin, and H. V. Rasika Dias, *Inorg. Chem.*, **2013**, 52, 1691.
- (40) "Transition-metal Free Direct Arylation: Synthesis of Halogenated 2-Amino-2'-hydroxy-1,1'-biaryls and Mechanism by DFT Calculations", by Hongyin Gao, Daniel H. Ess, Muhammed Yousufuddin, and Laszlo Kurti, *J. Am. Chem. Soc.*, **2013**, 135, 7086 (cover article)
- (41) "Tris(alkyne) and Bis(alkyne) Complexes of Coinage Metals: Synthesis and Characterization of (cyclooctyne)₃M⁺ (M = Cu, Ag) and (cyclooctyne)₂Au⁺ and Coinage Metal (M = Cu, Ag, Au) Family Group Trends", by Animesh Das, Chandrakanta Dash, Mehmet Ali Celik, Muhammed Yousufuddin, Gernot Frenking, and H. V. Rasika Dias, *Organomet.*, **2013**, 32, 3135. (cover article)
- (42) "Discoipyrroles A-D" by Youcai Hu, Malia B. Potts, Dominic Colosimo, Mireya L. Herrera-Herrera, Aaron G. Legako, Muhammed Yousufuddin, Michael A. White, and John B. MacMillan, *J. Am. Chem. Soc.*, **2013**, 135, 13387
- (43) "Aerobic, Transition-Metal-Free, Direct, and Regiospecific Mono- α -arylation of Ketones: Synthesis and Mechanism by DFT Calculations" by Qing-Long Xu, Hongyin Gao, Muhammed Yousufuddin, Daniel Ess, and Laszlo Kurti, *J. Am. Chem. Soc.*, **2013**, 135, 14048
- (44) "Gold-Mediated Expulsion of Dinitrogen from Organic Azides", by Chandrakanta Dash, Muhammed Yousufuddin, Thomas R. Cundari, and H. V. Rasika Dias, *J. Am. Chem. Soc.*, **2013**, 135, 15479

- (45) "Silver(I) Complexes of Tris(pyrazolyl)borate Ligands Bearing Six Trifluoromethyl and Three Additional Electron-withdrawing Substituents", by Naleen B. Jayaratna, Daniel B. Pardue, Sriparna Ray, Muhammed Yousufuddin, Krishna G. Thakur, Thomas R. Cundari, and H.V. Rasika Dias, *Dalton Trans.*, **2013**, 42, 15399
- (46) "Direct Aziridination of Olefins: Stereospecific Synthesis of N-H/N-Me Aziridines" by Jawahar L. Jat, Mahesh P. Paudyal, Hongyin Gao, Qing-Long Xu, Muhammed Yousufuddin, Deepa Devarajan, Daniel H. Ess., Laszlo Kurti, and John R. Falck, *Science*, **2014**, 343, 61
- (47) "Rapid Synthesis of Fused N-Heterocycles by Transition-Metal-Free Electrophilic Amination of Arene C-H Bonds", by Hongyin Gao, Qing-Long Xu, Muhammed Yousufuddin, Daniel H. Ess, Laszlo Kurti, *Angew. Chem. Int. Ed.*, **2014**, 53, 2701
- (48) "Total Synthesis of 7'-Desmethylkealiquinone, 4'-Desmethoxykealiquinone, and 2-Deoxykealiquinone", by Heather M. Lima, Rasapalli Sivappa, Muhammed Yousufuddin, and Carl J. Lovely, **2014**, *J. Org. Chem.*, 79, 2481
- (49) "Coordination and Ligand Substitution Chemistry of Bis(cyclooctyne)copper(I)" by Animesh Das, Chandrakanta Dash, Muhammed Yousufuddin, And H. V. Rasika Dias, **2014**, *Organomet.*, 33, 1644
- (50) "A Mechanistic Change Results in 100 Times Faster CH Functionalization for Ethane versus Methane by a Homogeneous Pt Catalyst" by Michael M. Konnick, Steven M. Bischof, Muhammed Yousufuddin, Brian G. Hashiguchi, Daniel H. Ess, and Roy A. Periana, *J. Am. Chem. Soc.*, **2014**, 136, 10085
- (51) "'Copper(I), silver(I) and gold(I) complexes of N-heterocyclic carbene-phosphinidene" by Venkata A. K. Adiraju, Muhammed Yousufuddin, and H. V. Rasika Dias, *Dalton Trans.*, **2015**, 44, 4449
- (52) "Preparation and Diels-Alder Reactions of 1'-heterosubstituted Vinylimidazoles" by Abhisek Ray, Sabuj Mukherjee, Jayanta Das, Manoj K. Bhandari, Hongwang Du, Muhammed Yousufuddin, and Carl J. Lovely, *Tetrahedron Lett.*, **2015**, 56, 3518
- (53) "Zinc-Mediated Carbene Insertion to C-Cl Bonds aof Chloromethanes and Isolable Zinc(II) Isocyanide Adducts", by Naveen V. Kulkarni, Animesh Das, Naleen B. Jayaratna, Muhammed Yousufuddin, and H. V. Rasika Dias", *Inorg. Chem.*, **2015**, 54, 5151
- (54) "Zinc(II)-Mediated Carbene Insertion into C-H Bonds in Alkane" by Naveen V. Kulkarni, Chandrakanta Dash, Naleen B. Jayaratna, Shawn. G. Ridlen, Sara Karbalaee Khani, Animesh Das, Xiado Kou, Muhammed Yousufuddin, Thomas G. Cundari, and H. V. Rasika Dias", *Inorg. Chem.*, **2015**, 54, 11043

(55) “Isolable Arene Sandwiched Copper(I) Pyrazolates” by Naleen B. Jayaratna, Champika V. Hiattiarachchi, Muhammed Yousufuddin, and H. V. Rasika Dias, *New J. Chem.*, **2015**, 39, 5092

At UNT Dallas (denotes UNT Dallas undergraduate co-authors)*

(56) “Targeted Water Soluble Copper-tetrazolate Complexes: Interactions with Biomolecules and Catecholase like Activities” by M. Saha, M. Das, R. Nasani, I. Choudhuri, M. Yousufuddin, H. P. Nayek, M. M Shaikh, B. Pathak, and S. Mukopadhyay, *Dalton Trans.*, **2015**, 44, 20154

(57) “Practical Organocatalytic Synthesis of Functionalized Non-C₂-Symmetrical Atropisomeric Biaryls” by H. Gao, Q. L. Xu, C. Keene, M. Yousufuddin, D. H. Ess, and L. Kurti, *Angew. Chem. Int. Ed.*, **2016**, 128, 576

(58) “Flourinated Triazapentadienyl Ligand Supported Ethyl Zinc(II) Complexes” by N. V. Kulkarni, A. Das, S. G. Ridlen, E. Maxfield, V. A. Adiraju, M. Yousufuddin, and H. V. R. Dias, *Dalton Trans.*, **2016**, 45, 4896

(59) “3D Luminescent Amide-Functionalized Cadmium Tetrazolate Framework for Selective Detection of 2,4,6-Trinitrophenol” by A. Buragohain, M. Yousufuddin, M. Sarma, and S. Biswas, *Cryst. Growth Des.*, **2016**, 16, 842

(60) “Gold-Mediated Isomerization of Cyclooctyne to Ring Fused Olefinic Bicycles” by A. Das, Y. Hua, M. Yousufuddin, T. R. Cundari, J. Jeon, and H. V. R. Dias, *Eur. J. Inorg. Chem.*, **2016**, 7, 995

*(61) “Dearomatizing Spirocyclization Reactions of Alkynyl Cynamides” by R. P. Singh, J. A. Spears, A. Dalipe, M. Yousufuddin, and C. J. Lovely, *Tetrahedron Lett.*, **2016**, 57, 3096

(62) “Quadruple Electron Storage using Visible Light with Nitrogen-heterocycles under Metal-free Conditions” by J. M. Aslan, M. Yousufuddin, D. J. Boston, and F. M. Macdonnell, *Inorg. Chim. Acta*, **2017**, 454, 216

(63) “Thio-acid mediated conversion of azides to amides-Exploratory studies en route to oroidin alkaloids” by A. K. Herath, M. R. Bhandari, D. Gout, M. Yousufuddin, and C. J. Lovely *Tetrahedron Lett.* 3913 **2017**

(64) “Total synthesis of *Leucetta* Alkaloids” by P. B. Koswatta, S. Kasiri, J. K. Das, A. Bhan, H. M. Lima, B. Garcia-Barboza, N. N. Khatibi, M. Yousufuddin, S. Mandal, and C. J. Lovely, *Bioorg. Med. Chem. Lett.*, 1608, **2017**

- *(65) "Catalyst-Controlled Diastereoselective Synthesis of Cyclic Amines via C-H Functionalization" by S. Munnuri, A. M. Adebesein, M. P. Paudyal, M. Yousufuddin, A. Dalipe, and J. R. Falck, *J. Amer. Chem. Soc.*, 18288, **2017**
- (66) "Tandem Oxidative Dearomatizing Spirocyclizations of Porpargyl Guanidines and Ureas" by R. P. Singh, J. Das, M. Yousufuddin, D. Gout, and C. J. Lovely, *Org. Lett.*, 4110, **2017**
- (67) "Practical Singly and Doubly Electrophilic Aminating Agents" by P. V. Kattamuri, J. Yin, S. Siriwongsup, D. Kwon, D. H. Ess, Q. Li, G. Li, M. Yousufuddin, S. C. Sutton, and L. Kurti, *J. Amer. Chem. Soc.*, 11184, **2017**
- *(68) "[1,4-Bis(4-methoxyphenyl)but-3-yn-2-yl](cyano)- methylamine" by M. Yousufuddin, R. Morales, W. Cassis, G. W. Brown, R. P. Singh, and C. J. Lovely, *IUCrData*, x180389, **2018**
- (69) "Transition metal-free direct dehydrogenation arylation of activated C(sp³)-H bonds: synthetic ambit and DFT reactivity predictions" by K. Lovato, L. Guo, Q. Xu, F. Liu, M. Yousufuddin, D. H. Ess, L. Kurti, and H. Gao, *Chem. Sci.*, 7992, **2018**
- (70) "Intramolecular Diels-Alder Reaction of a Silyl-Substituted Vinylimidazole en Route to the Fully Substituted Cyclopentane Core of Oroidin Dimers" by A. Ray, D. Gout, M. Yousufuddin, and C. J. Lovely, *Org. Lett.*, 5964, **2018**
- (71) "A new 3D luminescent Zn(II)-organic framework containing a quinolone-2,6-dicarboxylate linker for the highly selective sensing of Fe (III) ions" by C. Gogoi, M. Yousufuddin, S. Biswas, *Dalt. Trans.*, 1766, **2019**
- *(72) "Crystal structures of 4-{(E)-3-[(imino-λ⁵-azanylidene)amino]prop-1-enyl}-N,N-dimethylimidazole-1-sulfonamide and 2-[(imino-λ⁵-azanylidene)amino]-4-{(E)-3-[(imino-λ⁵-azanylidene)amino]prop-1-enyl}-N,N-dimethylimidazole-1-sulfonamide" by L.M. Cruz, R.Y. Moore, and M.T. Gutierrez, A.K. Herath, C.J. Lovely, and M. Yousufuddin, *Acta Cryst.*, E75, 695, **2019**
- (73) "Total synthesis of the nagelamides-synthetic studies towards the reported structure of nagelamide d and nagelamide e framework" by M. R. Bhandari, A. K. Herath, S. Rasapalli, M. Yousufuddin, and C. J. Lovely, *J. Org. Chem.*, 12971, **2020**
- (74) "Copper(I) complexes of anionic tridentate cnc pincer ligands" by V. A. K. Adiraju, W. Jin, M. Yousufuddin, and H. V. R. Dias, *ZAAC*, 215, **2020**

- *(75) “Total synthesis of isatindigotindoline C” by J. H. Siitonen, S. Lira, M. Yousufuddin, L. Kurti, *Org. & Biom. Chem.*, 2051, **2020**
- (76) “Arylbaboronic acid-catalyzed c-allylation of unprotected oximes: total synthesis of n-me-euphococcine” by J. H. Siitonen, P. V. Kattamuri, M. Yousufuddin, and L. Kurti, *Org. Lett.*, 2486, **2020**
- (77) “Directed covalent assembly of nanodiamonds into thin films” by N. H. Patoary, A. Rai, K. P. Patel, A. Rebecca, W. Zhang, A. J. Ulrich, M. Galib, T. Desai, S. Zivanovic, M. Yousufuddin, A. L. Moore, A. D. Radadia, *Diam. & Rel. Mat.*, 107605, **2020**
- *(78) “Synthesis, crystal structures, and DFT calculations of tungsten (IV) and tungsten (VI) phosphino polyhydrides” by C. C. Carter, B. R. Allen, D. V. Bui, D. A. Daley, J. M. Goncalves, C. M. Holinej, S. Lira, D. E. Muniz, A. I. Santiago, N. Sukran, T. R. Cundari, and M. Yousufuddin, *Inorg. Chim. Acta.*, 119638, **2020**
- *(79) “[4-(4-Methoxyphenyl)-8-oxo-3-(phenylselanyl)spiro[4.5]deca-3,6,9-trien-2-yl]methylcyanamide” by L. L. Morris, C. A. Alvarado, J. M. Goncalves, R. P. Singh, C. J. Lovely, and M. Yousufuddin, *IUCrData*, x200078, **2020**
- (80) “Intramolecular N–Me and N–H aminoetherification for the synthesis of N-unprotected 3-amino-O-heterocycles” by M. P. Paudyal, M. Wang, J. H. Siitonen, Y. Hu, M. Yousufuddin, H. C. Shen, J. R. Falck, L. Kurti, *Org. & Biom. Chem.*, 557, **2021**
- (81) “Investigating the non-classical M–H₂ bonding in OsClH₃(PPh₃)₃” by C. C. Carter, Ryan A. Klein, W. Zhou, T. J. Udovic, C. M. Brown, T. Wen, T. R. Cundari, and M. Yousufuddin, *J. All. Comp.*, 894, 162445, **2022**
- *(82) “Crystal structure and DFT calculations of bis(tetrahydridoborato)bis(cyclopentadienyl) zirconium (IV)” by N. G. Lopez, C. C. Carter, S. Rocha, C. J. Thomas, K. Falcon, J. Robledo, T. R. Cundari, and M. Yousufuddin, *J. Chem. Cryst.*, 52, 434-439, **2022**
- *(83) “Crystal structure and DFT calculations of Cp₂NbH(SiMe₂)(SiFMe₂): an asymmetric bis(silyl) niobocene hydride complex” by S. M. Rodriguez, Y. N. Motta, M. R. Hill, L. M. Oelke, C. C. Carter, T. R. Cundari, and M. Yousufuddin, *C79*, 158-163, **2023**
- *(84) “Catalyst-free transfer hydrogenation of activated alkenes exploiting isopropanol as the sole and traceless reductant” by T. K. Das, A. N. R. Trevino, S. Pandiri, S. Irvankoski, J. H. Siitonen, S. M. Rodriguez, M. Yousufuddin, and L. Kurti, *Green Chem.*, 25, 746-754, **2023**
- *(85) “Benzylhexadecyldimethylammonium chloride dihydrate” by U. Aguinaga, F. J. Oyiwola, M. J. Childs, S. Aldarkazanly, and M. Yousufuddin, *IUCrData*, 8(2), x230096, **2023**

*(86) “Diisopropyl 2-[(4-nitrobenzoyl)amino]propanedioate” by C. P. Deleon, A. R. Ramirez, D. Gonzalez, A. Ghosh, L. Kurti, and M. Yousufuddin, *IUCrData*, 8(2), x230104, **2023**

*(87) “Forging structural complexity: diastereoselective synthesis of densely substituted β -lactams with dual functional handles for enhanced core modifications” by A. M. Rodriguez, P. Loch-Temzelides, S. Pandiri, J. K. Kirkland, M. T. Davenport, U. Aguinaga, M. Yousufuddin, D. H. Ess, L. Kurti, *Chem. Sci.*, 15, 14668-14676, **2024**

*(88) “Organocatalytic Electrophilic Arene Amination: Rapid Synthesis of 2-Quinolones” by T. K. Das, A. Ghosh, Z. Grimm, U. Aguinaga, M. Yousufuddin, L. Kurti, *ChemEurJ*, 31(6), e202403542, **2025**

Book Chapters

(89) “Neutron Diffraction” by Muhammed Yousufuddin and Robert Bau *Application of Physical Methods to Inorganic and Bioinorganic Chemistry*, edited by Robert A. Scott and Charles M. Lukehart. Chichester, UK: John Wiley & Sons, Ltd., **2007**, 271.

Invited Papers

(90) “The Syntheses and Structures of Ph_4EN_3 (M = P, As, Sb), an Excellent Example for the Transition from Ionic to Covalent Azides within the Same Main Group” by Ralf Haiges, Thorsten Schroer, Muhammed Yousufuddin, and Karl O. Christe, *Zeitschrift für anorganische und allgemeine Chemie*, **2005**, 631, 2691.

(91) “Neutron Diffraction Studies on 4-Coordinate Hydrogen Atom in an Yttrium Cluster” by Muhammed Yousufuddin, Zhaomin Hou, Olivier Tardif, Jens Baldamus, Sax A. Mason, Garry J. McIntyre and Robert Bau *Physica B*, **2006**, 385-386, 231.

(92) “A Neutron Diffraction Study of Ytterbium(II) Cyclic Organohydroborates” by Kristen Aznavour, Muhammed Yousufuddin, Robert Bau, Garry J. McIntyre, Sax A. Mason, Xuenian Chen, Soyoung Lim, Christine E. Plecnik, Shengming Liu, Bin Du, Edward A. Meyers, and Sheldon G. Shore, *J. Mol. Struct.*, **2008**, 890, 277.

(93) “Efficient Preparation of Urocanic Acid Derivatives from Histidine” by Carl J. Lovely, Rasapalli Sivappa, Sabuj Mukherjee, Thomas Doundoulakis, Heather M. Fenton, and Muhammed Yousufuddin, *Heterocys*, **2010**, 80, 1353

(94) “Iridium(III) catalyzed trifluoroacetoxylation of aromatic hydrocarbons”, by Steven M. Bischof, Brian G. Hashiguchi, Kapil S. Lokare, Niles Gunsalus, Muhammed Yousufuddin, Roy. A. Periana, **2014**, *RSC Adv.*, 4 35639

**Selected Conference
Presentations**

- (1) 229 ACS National Meeting, San Diego, CA **2005**
- (2) 230 ACS National Meeting, Washington DC **2005**
- (3) American Conference on Neutron Scattering, Santa Fe, NM **2008**
- (4) American Crystallographic Association, Chicago, IL **2010**
- (5) American Crystallographic Association, New Orleans, LA **2011**
- (6) American Crystallographic Association, Honolulu, HI **2013**
- (7) American Chemical Society Meeting in Miniature, Denton, TX **2016**
- (8) Undergraduate Research Conference, Lubbock, TX **2019**
- (9) American Chemical Society National Meeting, Philadelphia, PA **2020**
- (10) American Crystallographic Association Meeting (Virtual) **2021**
- (11) Green Chemistry and Engineering Conference, Long Beach, CA **2023**
- (12) American Chemical Society National Meeting, San Diego, CA **2025**

**Invited
Presentations**

- (1) Center for Neutron Research, Gaithersburg, MD (**April 2007**)
- (2) American University, Washington DC (**June 2008**)
- (3) George Washington University, Washington DC (**June 2008**)
- (4) Georgetown University, Washington DC (**July 2008**)
- (5) US Borax, Boron, CA (**August 2008**)
- (6) Carnegie Institute of Washington, Washington DC (**October 2008**)
- (7) University of Texas at Arlington (**October 2008**)
- (8) University of Houston-Downtown, Houston, TX (**March 2011**)
- (9) Texas A&M University-Commerce, Commerce, TX (**March 2012**)
- (10) Rigaku Americas, Woodlands TX (**December 2013**)
- (11) ZS Pharma, Coppell, TX (**October 2014**)
- (12) Dallas County Community College (**April 2015**)