

Curriculum Vitae
MOHAMMAD A. OMARY



*University Distinguished Research Professor
Department of Chemistry
University of North Texas
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FAX: (940) 565-4318
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<https://chemistry.unt.edu/omary-research-group>

EDUCATION

Postdoctoral/ Inorganic chemistry

Texas A&M University, 1999-2001 (Advisor: John P. Fackler)

Ph.D./ Physical Inorganic chemistry

University of Maine, 1997 (Advisor: Howard H. Patterson)

M.S./ Electrochemistry

Yarmouk University, 1992

B.S./ Chemistry

Yarmouk University, 1990

EMPLOYMENT

2014-Present **University Distinguished Research Professor**, University of North Texas

2013-Present **Visiting Professor**, Yarmouk University

2012-Present **Affiliated Professor of Mechanical and Energy Engineering**, University of North Texas

2009-Present **Affiliated Professor of Physics**, University of North Texas

2009-Present **Professor of Chemistry**, University of North Texas (*Early Promotion*)

2006-2009 **Associate Professor of Chemistry**, University of North Texas (*Early Tenure*)

2001-2006 **Assistant Professor of Chemistry**, University of North Texas

1999- 2001 **Research Associate**, Texas A&M University

1997-1999 **Faculty Fellow**, Colby College

1998 **Visiting Lecturer**, University of Maine

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- *American Chemical Society*
- *SPIE*
- *Inter-American Photochemical Society*
- *Sigma Xi* (an international scientific research honors society)
- *Alpha Chi Sigma* (a national chemistry professional fraternity)
- *Jordanian Chemical Society*

HONORS AND AWARDS

- *I-APS Young Investigator Award, Inter-American Photochemical Society, 2006 (sole winner among all organic and inorganic photochemists in North and South America)*
- *NSF CAREER Award, University of North Texas, 2004*
- *Early Tenure, 2006;*
- *Early Promotion to Full Professor, 2009*
- *University Distinguished Research Professor, 2014*
- *Journal editorial: Comments on Inorganic Chemistry (Editor-in-Chief, 2014-present; Associate Editor, 2013-2014; Advisory Board, 2011-2013)*

DEPARTMENT/UNIVERSITY COMMITTEES AND RESEARCH CENTERS/INSTITUTES

- *Graduate Recruiting Committee, Department of Chemistry (2001-present; committee chair 2004-2005; 2008-present)*
- *Graduate Affairs Committee, Department of Chemistry (2001-2008)*
- *Search committees (several in Chemistry, Physics, and Biology, including chair of six faculty search committees, 2006-2010).*
- *Bio/Nano-Photonics Cluster (multi-million dollar effort to fund multi-disciplinary senior hires and support micro-/nano-fabrication device facilities at UNT), cluster coordinator (2008-2014).*
- *Advanced Materials and Manufacturing Processes Institute (AMMPI)*
- *Center for Advanced Research and Technology (CART)*

MAJOR PROPOSAL AWARDS

Total \$18,005,193 of which \$9,169,070 as lead or sole PI); external awards > \$100,000:

1. Arab Fund/Kuwait & Ibn Tofail University/Morocco (sabbatical leave support for Prof. Hassan Rabaâ to work in the Omary laboratory), \$151,470 for 2019-2020. Title: "Theory-Guided Design of 100% Arab-Invented New Battery Technologies: Electronic Structure & M-M/Ion- π Bonding in Novel "Arab Alchemists-Inspired" Sandwich Complexes of Coinage Metal Cyclotimers with Lithium, Fluoride, and Softer Ions". Role: Sole PI (Host).
2. Intelligence Advanced Research Projects Activity (IARPA)/Ithildin Program, \$578,955 subcontract of \$4,000,000 total from Leidos for 2018-2020. Title: "Mesoscale Integrated Temporally-triggered Heterostructures with Remote Indicating Luminescence (MITHRIL)". Role: PI at UNT (Co-PIs at UNT: LeGrande Slaughter and Jincheng Du; PI at Leidos: Deborah Hunka; PI at UCSD: Michael Sailor; Co-PIs at UCSD: Seth Cohen and Akif Tezcan).
3. National Science Foundation, \$262,689 awarded (Departmental proposal) for 2017-2020. Title: "MRI: Acquisition of a Microfocus X-Ray Diffractometer as a Regionwide Resource for Chemistry and Materials Research". Role: Co-PI (PI: LeGrande Slaughter).
4. Robert A. Welch Foundation, \$283,750 awarded for 2017-2020 (including a \$10,000 supplement and \$33,750 Texas Research Initiative Program (TRIP) funds from the State of Texas as a matching component); all direct cost. Title: "Dawn Rise upon New Chemical Bonds amidst Ground- and Excited-State Bonding Assortments in Luminescent Molecules/Excitons/Polarons". Role: Sole PI.
5. National Science Foundation/NSF-CHE/MSN Program, \$449,137 for 2014-2017. Title: "Macromolecular, Supramolecular and/or Nanomolecular Photophysics and Photochemistry of d^{10} and d^8 Complexes". Role: Sole PI.
6. National Aeronautics and Space Administration/NASA (subcontract from Intelligent Optical Systems, Inc.), \$425,708 of \$1,429,800 total for 2016-2020 as an STTR/Phase I, Phase II, and Phase II extension. Title: "Advanced Gas Sensing Technology for Space Suits". Role: Co-PI at UNT (PI at UNT: Omary for Phase I; Sreekar Marpu/Research Assistant Professor in the Omary group for Phase II/extension thereof; PI at IOS: Jesus Delgado Alonso).
7. Arab Fund/Kuwait & Yarmouk University/Jordan (sabbatical leave support for Prof. Abdel Monem Rawashdeh to work in the Omary laboratory), \$151,470 for 2018-2019. Title: Next-Gen Rare Earth-free Phosphors with Superior Quantum Yield and Thermo-Optical Stability". Role: Sole PI (Host).
8. RasGas (subcontract from Texas A&M), \$120,000 of \$1.8M total for 2015-2016. Title: "An Intelligent Open Hole Wireline Tool Conveyance System". Role: Sole PI at UNT (PI at Texas A&M-Qatar: Shehab Ahmed).
9. Scientific Research Support Fund/Jordanian Ministry of Higher Education and Scientific Research, \$355,806 for 2014-2017; all direct cost. Title: "Toward Green Organic Lighting Technologies with Mass Production Potential". Role: Sole PI at UNT (PI at Yarmouk University: Abdel Rawashdeh).
10. Robert A. Welch Foundation, \$225,000 for 2014-2017; all direct cost. Title: "Ground- and Excited-State Bonding Assortments in Luminescent Molecules and Corresponding Excitons". Role: Sole PI.
11. U.S. Department of Energy/Solid State Lighting program, \$2,269,095 (including matching funds and \$541,364 subcontract to Co-PI Bruce Gnade from UT-Dallas) for 2006-2010; Nigel Shepherd/UNT-Materials Science joined as Co-PI in 2007. Title: "Multi-Faceted Scientific Strategies Toward Better Solid-State Lighting of Phosphorescent OLEDs". Role: Lead PI.

12. *National Science Foundation/CHE-DMR, \$1,300,000 for 2009-2012 (including \$411,890 subcontract to Co-PI Bruce Gnade from UT-Dallas; UNT Co-PIs: Tom Cundari/Chemistry; Jincheng Du/Materials Science)*. Title: "Metalloaromatic Multinuclear Complexes of Monovalent Coinage Metals: Novel Chemistry Driving Applications in Molecular Electronics". Role: Lead PI.
13. *Robert A. Welch Foundation, \$220,000 for 2011-2014; all direct cost*. Title: "Molecular Spectroscopy and Bonding of Coordination Compounds: More Outstanding Issues and New Advances". Role: Sole PI.
14. *Robert A. Welch Foundation, \$210,000 for 2008-2011; all direct cost*. Title: "Molecular Spectroscopy and Bonding of Coordination Compounds: More Outstanding Issues and New Advances". Role: Sole PI.
15. *Norman Hackerman Advanced Research Program, Texas Higher-Education Coordinating Board, \$150,000 (PI; Co-PIs: Tom Cundari/UNT; Bruce Gnade/UT-Dallas) for 2008-2009; all direct cost*. Title: "Metal-Organic Field Effect Transistors (MOFETs)". Role: Lead PI.
16. *National Science Foundation, \$498,525 (Lead investigator; Departmental proposal) for 2009-2012*. Title: "Upgrading the NMR facilities at the University of North Texas". Role: Lead PI.
17. *National Science Foundation, \$2,216,336 (total cost including \$1,046,053 from NSF plus university matching funds) for 2010-2013*. Title: "Modernization of Multi-scale Characterization, Analysis, and Synthesis Facility for Materials and Devices: Remote Access, Visualization, and Public Engagement". Role: Co-PI (PI: Vish Prasad; UNT-wide proposal).
18. *Micromeritics Instrument Corporation and the University of North Texas Research Infrastructure Proposal Program, \$198,682 for 2008-2009*. Title: "Acquisition of High-Pressure and Low-Pressure Analyzers for Gas Adsorption in Porous Materials". Role: Sole PI.
19. *CAREER Award, National Science Foundation, \$527,000 for 2004-2009*. Title: "CAREER: Organic- and Metal-based Luminescence in Molecular and Dendrimeric Phosphors". Role: Sole PI.
20. *Robert A. Welch Foundation, \$150,000 for 2005-2008; all direct cost*. Title: "Photophysics and Photochemistry of Coordination Compounds: Outstanding Issues and New Advances". Role: Sole PI.
21. *Major Research Instrumentation, National Science Foundation, \$200,000 for 2006- 2008 (Co-PI with other UNT-CAS colleagues)*. Title: "MRI: Acquisition of Equipment for Nanoscale Characterization and Integration of Multifunctional Materials and Devices". Role: Co-PI.
22. *Advanced Technology Program, Texas Higher-Education Coordinating Board, \$180,000 (including \$90,000 to Co-PI François Gabbai from Texas A&M) for 2004-2006; all direct cost*. Title: "Heavy atom-induced phosphorescence of organic materials for OLED applications". Role: Lead PI.
23. *Robert A. Welch Foundation, \$150,000 for 2002-2005; all direct cost*. Title: "Luminescent Metal-Metal Bonded Exciplexes of Closed-Shell Coordination Compounds". Role: Sole PI.

PAST AND PRESENT GROUP MEMBERS

(mentored 200+ total group members -- 205 known/archived below -- of whom 23 members present/underlined; * = co-supervised with another colleague)

- **Graduate students:** (75 total; 14 present; 47 Graduate degrees completed: 35 Ph.D. and 12 Master's)
1. Oussama Elbjeirami (Ph.D., 2006 - deceased)
 2. Joshua M. Hudson (Ph.D., 2007)
 3. Ravi K. Arvapally (Ph.D., 2009)
 4. Pankaj Sinha (M.S.* , 2007; Ph.D., 2009)
 5. Hugo Lai* (M.S., 2003)
 6. Refaie M. Kassab (2002-2004)
 7. M. W. Alexander Gonser* (2003-2005)
 8. Wei-Hsuan Chen (Ph.D., 2010)
 9. Stephen Boateng (M.S., 2007)
 10. John J. Determan* (M.S., 2008; Ph.D., 2011)
 11. Sharon E. Hogue* (2004-2005)
 12. Ushasree Kaipa* (Ph.D., 2012)
 13. Sreekar Marpu* (Ph.D., 2011; Materials Sci. & Eng./UNT)
 14. Kristin Sherman* (Ph.D., 2010)
 15. Gustavo Salazar Garza (M.S., 2009; Ph.D. 2017)
 16. Charles L. Browning (Ph.D., 2014)
 17. Sammer Tekarli* (Ph.D., 2011)
 18. Nisa T. Satumtira* (Ph.D., 2012)
 19. Unnat Bhansali* (Ph.D., 2010; Materials Sci. & Eng./UT-Dallas)
 20. Ming-Hang Li* (Ph.D., 2010; Materials Sci. & Eng./UNT)
 21. Ming-Te Lin* (Ph.D., 2010; Materials Sci. & Eng./UNT)
 22. Roy McDougald (Ph.D., 2013)
 23. Michael Ramon Perez* (Ph.D., 2013; Materials Sci. & Eng./UT-Dallas)
 24. Bhaskar Chilukuri* (Ph.D., 2012)
 25. Yun Li* (Master's in Engineering, 2012; Materials Sci. & Eng./UNT)
 26. Sophie Kinyanjui* (Ph.D., 2015)
 27. Tania Lasanta* (2010; Universidad de la Rioja/Spain)
 28. Jason Halbert (M.S., 2012)
 29. Iain Oswald (M.S., 2013)
 30. Simone Ricci* (Ph.D., 2012; Univ. Camerino/Italy)
 31. Prabhat Upadhyay (Ph.D., 2015)
 32. Laura Horn* (2012-2014)
 33. Christopher Williams (Ph.D., 2019)
 34. Joshua Ivy (Ph.D., 2018)
 35. Ganiat Animashawun (2012-2013)
 36. Brian Kamras* (Ph.D., 2019)
 37. Mukunda Ghimire (Ph.D., 2017)
 38. Mustafa Rawshdeh* (Master's in Engineering, 2015; Engineering Technology/UNT)
 39. Xiaofan ("Michelle") Zhang (2014-2015)
 40. Abdulmajeed Alharbi* (2014-2016; Biological Science/UNT)
 41. Brooke Otten (Ph.D., 2019)
 42. Ruaa Almotawa* (Ph.D., 2018)
 43. Daniel Korir* (Ph.D., 2019)
 44. Waleed Yaseen* (Ph.D., 2019)
 45. Erin Benton (Ph.D., 2019)
 46. Alessandro Cimino* (Ph.D., 2017; Univ. Insubria/Italy)

47. Camille Simon Oumarou* (Ph.D., 2016; Univ. Camerino/Italy)
48. Riffat Parveen (2015-2016)
49. Jessica Jones (2015)
50. Nooshin Mirza Nasiri (Ph.D., 2020)
51. SeyedMajid Farvid (2016-present)
52. Kurt Bodenstedt (2016-present)
53. Khaled Shennara (2016-present)
54. Dieaa Alhmoud* (M.S., 2017; Yarmouk University/Jordan)
55. Mustafa Kharma* (M.S., 2017; Yarmouk University/Jordan)
56. Brittani Churchill* (2016-2017)
57. Kortney Melancon* (2016-2019)
58. Jose Claudio (2016)
59. Sujata Mandal* (Ph.D. 2021)
60. Sheikh Mohammad Sirajul Islam* (2016-present)
61. Lauren Harris (Ph.D., 2020)
62. Megan Ericson* (M.S., 2019)
63. Shan Li* (2018-present; Materials Sci. & Eng./UNT)
64. Domllermut Alamo Velazquez* (2018-2019)
65. Sindhu Shankar (2018-present)
66. Jacob Fripp (2018-present)
67. Karen Reyes* (2018-2019)
68. Daniela Vargas Trujillo* (2018-2019)
69. Jacob Arvidson (2018-2019)
70. Zhou Lu* (2018-present)
71. Rashida Yasmeen* (2018-present; Materials Sci. & Eng./UNT)
72. Rajitha Perera (2019-present)
73. Sharmila Neupane* (2021)
74. Mustapha Olatunji (2021)
75. Joseph Adebanjo* (2021-present)
76. Bisola Adeyemi* (2021-present)

- **Undergraduate and high-school (Texas Academy of Mathematics and Science/TAMS) students: (105 total; 4 present)**

1. S. Matthew Dowling (2001-2004)
2. Kathy D. Hines (2001-2004)
3. Mark F. Doyal (TAMS; 2001-2003)
4. Matthew A. Franzman (NSF-REU, Summer 2003)
5. Johnson Korie (2003-2004)
6. Maha G. Eldabaja (2004-2006)
7. Jessica L. Menke (NSF-REU, Summer 2004)
8. Dustin M. Jenkins (NSF-REU, Summer 2005)
9. Kennyth Randle (2005-2006)
10. Jeffrey Ross (2006)
11. Roy McDougald (2006-2008)
12. Jacob Getto (TAMS: 2006-2007)
13. Nesreen Alzoghoul* (2007)
14. Eunice Kimwaki* (2007)
15. Marie Eastlund (2007)
16. Tim Onken (NSF-REU, Summer 2007)
17. Firas Abuzaid (TAMS: 2008-2009)
18. Christopher Smith (NSF-REU, Summer 2008)
19. Iain Oswald (2008-2010; NSF-REU, Summer 2010)

20. Omar Kattan (2009-2010)
21. Alex Chu (TAMS: 2009-2010)
22. Samar Kolailat (2009-2011)
23. Jorge Torres (NSF-REU, Summer 2009)
24. Jason Halbert (2009-2010)
25. Carl Russo (NSF-REU, Summer 2010)
26. Badar Patel (TAMS, 2010-2012)
27. Karan Kashyap (TAMS, 2010-2013)
28. Kevin Li (TAMS, 2010-2012)
29. Jackson Miller* (2011-2012)
30. Alex Chen (TAMS, 2011-2012)
31. Mukunda Ghimire (2012-2013)
32. Jennifer Leveille (2012)
33. Kishore Srinivasan (TAMS, 2012)
34. Reina Davidson (NSF-REU, Summer 2012)
35. Ahmed Shahub (2012-2014)
36. Fatme Sleiman (2012-2013)
37. Teskiratou Nachirou (2012)
38. Patrick Gustafson (2013)
39. Allie Dyson (2013)
40. Eileen Dai (TAMS, 2013)
41. Melissa Vigatto (NSF-REU, Summer 2013)
42. Terry Hall (TAMS; 2013)
43. David Wang (TAMS; 2013-2015)
44. Jason Liu (TAMS; 2013-2014)
45. Misael "Robert" Palma (2013-2014; NSF-REU, Summer 2014)
46. Brooke Otten (2014-2015; NSF-REU, Summer 2014)
47. Hrishii Iyer (TAMS; 2014-2015)
48. Amin Abutaj (2014-2015)
49. Adam Hilgemeier (2015)
50. Mario Puente (2015)
51. Alanna Felts (NSF-REU, Summer 2015)
52. Abel Joseph (2016-2017)
53. Fatemeh Behnia (TAMS; 2016-2017)
54. Christopher Mozdzen (2016)
55. Christian Cardenas (2015-*present*; *including post-undergraduate research*)
56. Sonali Bhat (TAMS; 2016-2017)
57. Prateek Kalakuntla (TAMS; 2016-2017)
58. Anchith Kota (TAMS; 2016-2017)
59. Lauren Harris (2016)
60. Andrew Peterson (2016)
61. Gwendolyn Blanco (2016-2017)
62. Brittani Churchill (2016)
63. Corshai Williams (NSF-REU, Summer 2016)
64. Bruce Hua (2016-2017)
65. Kimberly Savage (2016-2017)
66. Andrew Chen (TAMS; 2016-2018)
67. Jeffrey Yu (TAMS; 2016-2018)
68. Raghuram Reddy (TAMS; 2016-2018)
69. Breanna Murphy (2016-2018)
70. Somesh Singh (TAMS; 2016-2018)
71. Abhishek Mohan (TAMS; 2016-2018)
72. Elaine Lee (TAMS; 2016-2018)

73. Yassine Houli (2016-2018)
74. Yongkang Jin (2016-2018)
75. Matthew Paul (TAMS; 2017-2018)
76. Lucas Jia (TAMS; 2017-2018)
77. Ameya Telang (TAMS; 2017-2018; NSF-REU, Summer 2017)
78. Langyan Zhou (TAMS; 2017-2018)
79. Megan Ericson (2017)
80. Andy Wu (TAMS; 2017-2019; NSF-REU, Summer 2017)
81. Manasi Ramadurgum (TAMS; 2017-2019)
82. Lainey Wang (TAMS; 2017-2019)
83. Christopher Hu (TAMS; 2017-2019)
84. Samantha Goldberg (TAMS; 2017-2019)
85. Alan Zhu (TAMS; 2017-2019)
86. Shreya Hariharakumar (TAMS; 2017-2019)
87. Nishant Tyagi (TAMS; 2017-2019)
88. Yelizza Avila (NSF-REU, Summer 2017)
89. Dayani Davilla (2018-2019)
90. Kayli Carrillo (2018-2019)
91. Abdirahman Dahir (2018-2019)
92. David Qian (TAMS; 2018-2019)
93. Jacqueline Jia (TAMS; 2018-2019)
94. Ethan Hardy (TAMS; 2018-2019)
95. Cassidy Duan (2018-2019)
96. Jake Harrison (2018-2019)
97. Nivedh Neelamkavil (TAMS; 2018-2019)
98. Connor Chung (2018-2019)
99. Emily Cao (TAMS; 2018-2019)
100. Kevin Moyer (2018-2019)
101. Laya Chahine (2018-2019)
102. Anvitha Reddy (2020-present)
103. Nihal Annaparthi (2020-2021)
104. Tejas Alankar (2020-present)
105. Subiksha Sankar (2020-present)

- **Postdoctoral fellows and visiting/research professors: (25 total; 5 present)**

1. Dr./Prof. Chi Yang (2005-2009/2009-2015; 2018-2019)
2. Dr. Huiping Jia* (2006-2012)
3. Dr. Kalpana Shankar (2009-2011)
4. Dr./Prof. Oussama Elbjeirami (2006-2009/2011 - deceased)
5. Prof. Hassan Rabaâ (2005-present)
6. Prof. Manal Rawashdeh-Omary (2001-2004)
7. Prof. Bradley W. Smucker (2004)
8. Prof. Mo. Chehbouni (2009-2010)
9. Dr. Pankaj Sinha (2009-2010)
10. Dr. Qi Wang* (2009-2012)
11. Dr./Prof. Wei-Hsuan Chen (2010-2011/2013)
12. Dr. Ming-Te Lin* (2010-2011)
13. Dr. Minghang Li (2010-2011)
14. Dr./Prof. Sreekar Marpu (2011-2012; 2015-present)
15. Dr. Ushasree Kaipa (2012-2014; 2015-2020)
16. Dr./Prof. Sammer Tekarli (2012-2013; 2014-present)
17. Dr. Ravi Arvapally (2013-2014; 2015-2019)

18. Dr. Tong Cai (2013-2014)
19. Dr. Charles Browning (2014-2017)
20. Prof. Abdel Rawashdeh (2013; 2016; 2018-2019)
21. Dr. Denise Perry Simmons (2016-present)
22. Prof. Robby Petros (2016-2017)
23. Dr. Mukunda Ghimire (2017-2018)
24. Dr. Joshua Ivy (2018-2019)
25. Dr. Christopher Williams (2020-2021)

FORMER MENTORS

- **Ph.D. Advisor** Howard H. Patterson, Professor of Chemistry, University of Maine, Tel.: (207) 581-1178, E-mail: howardp@maine.edu
- **Postdoctoral Advisor** John P. Fackler, Jr., Distinguished Professor of Chemistry, Texas A&M University, Tel.: (979) 845-2835, E-mail: fackler@mail.chem.tamu.edu

COLLABORATORS SINCE 2001

(51 total; 30 present (underlined); * = co-supervisors of current or previous Omary group members)

1. Paul S. Bagus (U. North Texas)
2. Alan L. Balch (U. California, Davis)
3. Alfredo Burini* (Camerino U./Italy)
4. Alice E. Bruce (U. Maine)
5. Mitchell R. M. Bruce (U. Maine)
6. Yves Chabal (U. Texas, Dallas)
7. Seth Cohen (U. California, San Diego)
8. Philip Coppens (SUNY-Buffalo – deceased)
9. Thomas R. Cundari* (U. North Texas)
10. Jesus Delgado Alonso (Intelligent Optical Systems, Inc.)
11. H. V. Rasika Dias (U. Texas, Arlington)
12. Jincheng Du* (U. North Texas: MSE)
13. Kim R. Dunbar (Texas A&M U.)
14. Francis D'Souza (U. North Texas)
15. Mohamed El Bouanani (U. North Texas: MSE)
16. Hani El-Kaderi (Virginia Commonwealth U.)
17. Patrick J. Farmer (Baylor U.)
18. Stephen R. Forrest (U. Michigan)
19. François P. Gabbai (Texas A&M U.)
20. Rossana Galassi* (Camerino U./Italy)
21. Simona Galli* (U. Insubria/Italy)
22. Jeremiah J. Gassensmith (U. Texas, Dallas)
23. Bruce E. Gnade* (U. Texas, Dallas)
24. Teresa D. Golden* (U. North Texas)
25. Wojciech Grochala (U. Warsaw/Poland)
26. Zhibing Hu* (U. North Texas: Physics/MSE - deceased)
27. Deborah E. Hunka (Leidos)
28. Pudur Jagdeeswaran* (U. North Texas: Biology)
29. Yuankun Lin (U. North Texas: Physics/EE)
30. José M. López-de-Luzuriaga* (U. de La Rioja/Spain)
31. Shengqian Ma (U. South Florida; U. North Texas)
32. Angelo Maspero* (U. Insubria/Italy)
33. Hisham Menkara (PhosphorTech Corp.)
34. Asanga B. Padmaperuma (Pacific Northwest Nat. Lab.)
35. Pamela Padilla* (U. North Texas: Biology)
36. Howard H. Patterson (U. Maine)
37. Robby A. Petros (Texas Woman's U.)
38. Hassan Rabaâ (U. Ibn Tofail/Morocco)
39. Abdel Monem Rawashdeh* (Yarmouk U./Jordan)
40. Manal A. Rawashdeh-Omary* (Texas Woman's U.)
41. Michael G. Richmond* (U. North Texas)
42. Douglas Root (U. North Texas: Biology)
43. Michael Sailor (U. California, San Diego)

44. Jyoti Shah (U. North Texas: Biology)
45. Nigel D. Shepherd* (U. North Texas: MSE)
46. LeGrande M. Slaughter (U. North Texas)
47. Bradley W. Smucker (Austin College)
48. Randall Q. Snurr (Northwestern U.)
49. Dage Sundholm (U. Helsinki/Finland)
50. Mark E. Thompson (U. Southern California)
51. Donald G. Truhlar (U. Minnesota)
52. Ione Hunt von Herbing* (U. North Texas: Biology)
53. Hong Wang* (U. North Texas)
54. Xiaoping Wang* (Oak Ridge Nat. Lab.)
55. Angela K. Wilson* (U. North Texas & Michigan State)
56. Omary M. Yaghi (U. California at Berkeley)
57. Hong-Cai Zhou (Texas A&M U.)

PRODUCTS (NSF Definition)

(630 total including 140 papers, 38 patent disclosures, 115 invited seminars, 289 conference presentations, and 48 Ph.D. or Master's degrees completed as major advisor or co-supervisor; 18 instances of papers featured on journal covers or highlight media)

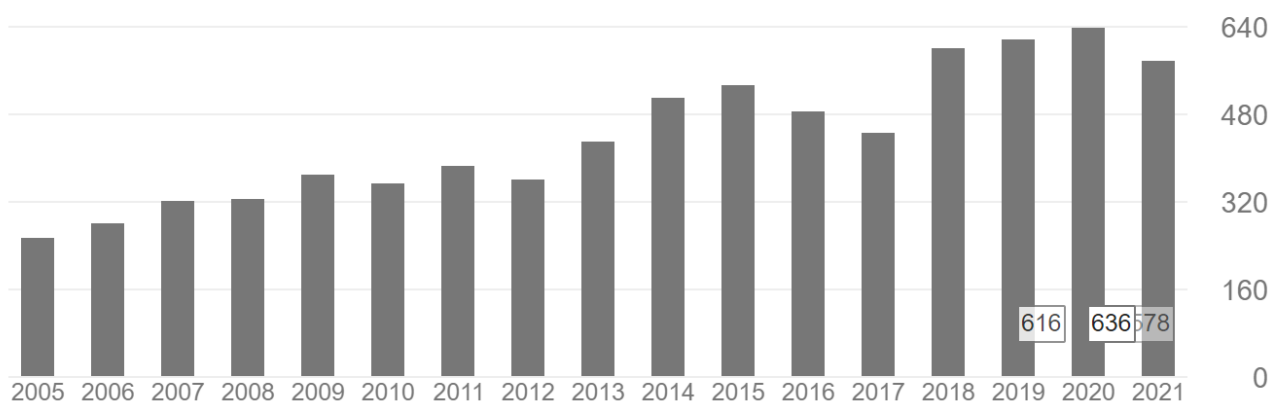
A. Publications

GoogleScholar results on December 31, 2021: *h-index* = 49; > 8000 total citations (> 3300 since 2016); 21 papers with 100+ citations, 11 with 200+, 4 with 300+, 1 with 400+, 10 with 250+, 14 with 150+, 30 with 75+, and 48 with 50+ citations; more citation information:

Citation indices

<u>Citation indices</u>	All	Since 2016
Citations	8071	3361
<i>h-index</i>	49	28
<i>i10-index</i>	102	79

Citations per year



140. Dharmarwardana, M.; Otten, B. M.; Ghimire, M. M.; Arimilli, B. S.; Williams, C. M.; Boateng, S.; Lu, Z.; McCandless, G. T.; Gassensmith, J. J. **Omary, M. A.** "Strong π -stacking causes unusually large anisotropic thermal expansion and thermochromism", *Proc. Natl. Acad. Sci. U.S.A.* **2021**, *118*, E2106572118. DOI: 10.1073/pnas.2106572118 (<https://www.pnas.org/content/118/44/e2106572118>). **HIGHLIGHTED ON TWITTER.**
139. Mandal, S.; Marpu, S. B.; **Omary, M. A.**; Hughes, R.; Shi, S. Q. "A lignocellulose-based/silver nanoparticle nanocomposite adsorbent for the removal of toxic dyes and pathogenic bacteria", *International Journal of Biological Macromolecules*, submitted Oct. 7, 2021; accepted with minor comments; revised manuscript submitted Oct. 23, 2021.
138. Li, S.; Bodenstedt, K.; Kharm, M.; Burson, C. M.; Alhmod, D.; Moulder, C. A.; Farvid, S.; Ghimire, M. M.; Rawashdeh, A.-M. M.; El Bouanani, M.; **Omary, M. A.** "Can A Double-Doped Device Modification of A Standard Bilayer OLED Improve the Photo- And/or

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B. Patent Disclosures

1. **Omary, M. A.**; Yang, C. "Fluorinated Metal-Organic Frameworks for Gas Storage", *United State Patent and Trademark Office. U.S. Provisional Patent Application Number: 60/993,844. Filing Date: September 14, 2007. UNT Technology Number: 12MO-2007-01; UNTD-0044 PRO.*
2. **Omary, M. A.** "Bidentate Square Planar Complexes of Triazolates and Uses Thereof", *United State Patent and Trademark Office; U.S. Provisional Patent Application Number: 61/188,428; Filing Date: August 8, 2008. UNT Technology Number: 12MO-2008-02; UNTD-0049 PRO.*
3. **Omary, M. A.**; Yang, C. "Fluorinated Metal-Organic Frameworks for Gas Storage", *International Patent (under the Patent Cooperation Treaty, PCT) Application Number: PCT/US 08/10664. Filing Date: September 17, 2008. UNT Technology Number: 12MO-2007-01; UNTD-0044 WO.*
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8. **Omary, M. A.**; Hu, Z.; Marpu, S.; Elbjeirami, O. "Gold, silver, and copper nanoparticles stabilized in biocompatible aqueous media", *United State Patent and Trademark Office. U.S. Utility Patent Application Number: 12/650,254. Filing Date: December 30, 2009. UNT Technology Number: 12MO-2008-03.*
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11. **Omary, M. A.** "Neutral Mixed-Ligand Transition Metal Complexes as Active Materials in Solid-State Organic Photovoltaic Devices", *International Patent (under the Patent Cooperation Treaty, PCT) Application Number: PCT/US 2010/051218. Filing Date: October 1, 2010. UNT Technology Number: 12MO-2009-04.*
12. **Omary, M. A.** "Organic Light Emitting Diodes from Homoleptic Square Planar Complexes", *United State Patent and Trademark Office. U.S. Utility Patent Application Number: 13/055,974. Filing Date: January 26, 2011. UNT Technology Number: 12MO-2008-02; UNTD-0049 WO/US. ISSUED PATENT GRANTED NOVEMBER 12, 2013 (U.S. issued patent 8,580,397).*

13. **Omary, M. A.** "Organic Light Emitting Diodes from Homoleptic Square Planar Complexes", *Nationalized Filing in Japan for International PCT/US Application 2009/049938*. Filing Date: February 7, 2011. UNT Technology Number: 12MO-2008-02; UNTD-0049 WO/JP. **ISSUED PATENT GRANTED OCTOBER 3, 2014 (Japanese issued patent 5624035).**
14. **Omary, M. A.** "Organic Light Emitting Diodes from Homoleptic Square Planar Complexes", *Nationalized Filing in Europe for International PCT/US Application 2009/049938*. Filing Date: February 17, 2011. UNT Technology Number: 12MO-2008-02; UNTD-0049WO/EP.
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18. **Omary, M. A.** "Neutral Mixed-Ligand Transition Metal Complexes as Active Materials in Solid-State Organic Photovoltaic Devices", *United State Patent and Trademark Office*. U.S. Utility Patent Application Number: 13/499,604. Filing Date: March 30, 2012. UNT Technology Number: 12MO-2009-04.
19. **Omary, M. A.**; Marpu, S. "Facile Synthesis Method for Making Plasmon Absorption Tunable Nanoparticles", *United State Patent and Trademark Office*. U.S. Continuation-in-Part Patent Application Number: 61/621,148. Filing Date: April 6, 2012. UNT Technology Number: 12MO-2008-03 CIP.
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23. **Omary, M. A.**; Oswald, I. W. H. "Bidentate Heteroleptic Square Planar Complexes of (Pyridyl)Azolates", *United State Patent and Trademark Office*. U.S. Utility Patent Application Number: 14/536,092. Filing Date: November 7, 2014. UNT Technology Number: 12MO-2013-08; UNTD-0084 (122302.194). **ISSUED PATENT GRANTED OCTOBER 24, 2017 (U.S. issued patent 9,796,742).**
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Number: PCT/US 2014/68270. Filing Date: December 3, 2014. UNT Technology Number: 12MO-2013-08; UNTD-0084 (122302.194).

25. **Omary, M. A.**; Marpu, S. "Phosphorescent Nanoparticles and Their Uses in Biosensing and Bioimaging", *United State Patent and Trademark Office. U.S. Provisional Patent Application Number: 62/261,172. Filing Date: November 30, 2015. UNT Technology Number: 12MO-2015-01; UNTD-0088PRO (122302.00204).*
26. **Omary, M. A.**; Ivy, J. F. "Metal-Inorganic Frameworks", *United State Patent and Trademark Office. U.S. Provisional Patent Application Number: 62/332,292. Filing Date: May 5, 2016. UNT Technology Number: 12MO-2016-01; UNTP.P0001US.P1.*
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29. **Omary, M. A.**; Ivy, J. F. "Metal-Inorganic Frameworks", *United State Patent and Trademark Office. U.S. Non-Provisional Patent Application Number: 15587053. Filing Date: May 4, 2017. UNT Technology Number: 12MO-2016-01; UNTP.P0001US/11704341.*
30. Rawashdeh-Omary, M. A.; **Omary, M. A.**; Almotawa, R. "COORDINATION POLYMERS OF COINAGE METALS: SYNTHESIS AND USES THEREOF", *United State Patent and Trademark Office. U.S. Provisional Patent Application Number: 62/528719, Filing Date: July 5, 2017.*
31. **Omary, M. A.** "Organic Light Emitting Diodes from Homoleptic Square Planar Complexes", *European Filing for International PCT/US Application 2009/049938. UNT Technology Number: 12MO-2008-02; UNTD-0049 WO/Europe. ISSUED PATENT GRANTED AUGUST 23, 2017 (European issued patent EP2318472).*
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33. **Omary, M. A.**; Marpu, S. "A TRINUCLEAR GOLD(I) CHEMOSENSOR FOR METAL ION DETECTION". *UNT Technology Number: Invention ID #: Omary-M13. U.S. Provisional Patent Application Number: 62/719,777. Filing Date: August 20, 2018.*
34. Rawashdeh-Omary, M. A.; **Omary, M. A.**; Almotawa, R. "COORDINATION POLYMERS OF COINAGE METALS: SYNTHESIS AND USES THEREOF", *International Patent (under the Patent Cooperation Treaty, PCT) Application Number: PCT/US19/40925. Filing Date: July 9, 2019.*
35. **Omary, M. A.**; Marpu, S. "A TRINUCLEAR GOLD(I) CHEMOSENSOR FOR METAL ION DETECTION". *UNT Technology Number: Invention ID #: Omary-M13. U.S. Non-Provisional Patent Application Number: 16/546,001. Filing Date: August 20, 2019.*
36. **Omary, M. A.**; Marpu, S. B.; Golden, T. D.; Yaseen, W. "FLUORINATED POLYMERS FOR CORROSION PROTECTION OF METAL". *UNT Technology Number: Invention ID #: Omary-M15. U.S. Provisional Patent Application Number: 63/036,502. Filing Date: June 9, 2020.*
37. Marpu, S. B.; **Omary, M. A.**; Shi, S Q.; Mandal, S. "POROUS AND HYDROPHOBIC BIOMASS SUBSTRATE WITH STABILIZED SILVER NANOPARTICLES AND USES THEREOF". *UNT*

Technology Number: Invention ID #: Omary-M16. U.S. Provisional Patent Application Number: 63/178,782. Filing Date: April 23, 2021.

38. **Omary, M. A.**; Marpu, S. B.; Golden, T. D.; Yaseen, W. "FLUORINATED POLYMERS FOR CORROSION PROTECTION OF METAL". *UNT Technology Number: Invention ID #: Omary-M15. U.S. Non-Provisional Patent Application Number: 17/343,466. Filing Date: June 9, 2021.*

C. Invited Seminars

115. **2021 Southwest Regional Meeting (SWRM) of the American Chemical Society/MOF Chemistry in the Southwest Symposium**, ““Green Fracking” vs “Don’t Frack with Texas””, November 2, 2021.
114. **UNT-Frisco**, “Chemistry: The Fun Science that Enables a World of Modern Apps.”, September 10, 2021.
113. **SE-MAT International Meeting [Online Conference]**, “The False Choice Between “Green Fracking” vs “Don’t Frack with Texas””, August 9, 2021.
112. **International Forum on Energy Frontiers [Online Forum]**, “Organic-Inorganic Energy Storage Materials”, September 18, 2020.
111. **University of South Florida**, “Chemistry: The Fun Science that Enables a World of Modern Apps.”, March 11, 2020.
110. **Jiangsu Industrial Technology Research Institute – Nanjing/China**, “Energy/Environmental Apps of Superhydrophobic Hybrid Molecular/Biomass or Nanoscale Materials: A Proposal for JITRI/Yarmouk University Collaboration”, July 23, 2019.
109. **Jiangsu Industrial Technology Research Institute – Nanjing/China**, “From First “Made in Jordan” OLEDs to First “Made at JITRI” DFW-MOLEDs: A Proposal for JITRI/Yarmouk University Collaboration”, July 22, 2019.
108. **Delta Institute of New Energy/2019 Frontier Technology International Forum and New Product Launch Conference – Jiashan/China**, “An “All the Above” Comprehensive Strategy for Real Solutions of the Worldwide Energy Problem”, July 20, 2019. **KEYNOTE SEMINAR**
107. **23rd International Symposium on the Photochemistry and Photophysics of Coordination Compounds – City University of Hong Kong/Hong Kong**, “First “Made in Jordan” OLEDs: Effect of Doping on Neat vs Doped Fluorescent and Phosphorescent Device Structures”, July 14-19, 2019.
106. **Osher Lifelong Learning Institute (OLLI)**, “Chemistry: The Fun Science that Enables a World of Modern Apps.”, July 2, 2019.
105. **2019 FluoroFest – the international workshop on fluorescence techniques, applications and innovation – Texas Christian University**, “Reality vs myth regarding fluorophores or phosphors with beyond-unity quantum yield”, May 21-23, 2019.
104. **Letourneau University**, “Chemistry: The Fun Science that Enables a World of Modern Apps.”, October 25, 2018.
103. **Global Bamboo and Rattan Congress – Beijing/China** “We Mean Green: A Perfect Blend of Bamboo, UNT, and Energy/Environmental Apps of Superhydrophobic Hybrid Molecular/Biomass Materials”, June 27, 2018.
102. **University of North Texas**, “Chemistry: The Fun Science that Enables a World of Modern Apps.”, Faculty Lecture Series/SMART Talks (inaugural TED Talk-style lecture), UNT College of Science, April 25, 2018.
101. **Texas Tech University**, “Advanced Functional Materials Made Smart for a “Spectrum” of Energy, Environmental, and Biomedical Applications”, November 8, 2017.
100. **Theoretical Models of Chemical Bonding & Reactivity Spanning the Periodic Table: A Symposium in Honor of Roald Hoffmann/254th ACS National Meeting/Washington DC ACS Meeting**, “Dawn rise of new M-M’ bonds: An experimental/theoretical 21st-century approach to “Alchemize” gold *en route* to sensitizing genuine, ligand-unassisted d^{10} - d^{10} covalent metal-metal bonds”, April 20, 2017.

99. **International Conference on Theoretical Chemistry and Modeling/ Conférence Internationale de Chimie Théorique et Modélisation – Kenitra/Morocco**, “Dawn Rise of New M-M' Bonds: An Experimental/Theoretical 21st-Century Approach to "Alchemize" Gold *en route* to Sensitize Genuine, Ligand-Unassisted d¹⁰-d¹⁰ Supramolecular and/or Molecular Covalent Bonds”, March 16-17, 2017. **(KEYNOTE SPEECH/PLENARY LECTURE)**
98. **Texas A&M University/Arthur E. Martell Symposium**, “Are MOFs *et al.* really the next best thing since sliced bread? A case study for electronic device apps.”, October 14, 2016.
97. **Jordan University and Mango Center – Amman/Jordan**, “From Chemistry to Materials Science and Technology: Design of Metal-Organic Materials toward Energy, Environmental and Biomedical Apps./Lecture 2: Molecular and Plasmonic Nanocomposites Made Smart for a Spectrum of Biomedical Apps.”, August 4, 2016.
96. **Jordan University and Mango Center – Amman/Jordan**, “From Chemistry to Materials Science and Technology: Design of Metal-Organic Materials toward Energy, Environmental and Biomedical Apps./Lecture 1: Structure-Property Correlations for Energy & Environmental Apps.”, August 4, 2016.
95. **Yarmouk University – Irbid/Jordan**, “Toward Green Organic Lighting and Display Technologies with Mass Production Potential for "Made in Jordan" LEDs, Smartphones, *etc.*”, July 20, 2016.
94. **Texas Christian University**, “Are MOFs *et al.* really the next best thing since sliced bread? Case studies for fundamental "anti-organic" chemistry and electronic device apps”, February 25, 2016.
93. **Florida State University**, “Advanced Functional Materials Made Smart for a “Spectrum” of Energy, Environmental, and Biomedical Applications”, February 8, 2016.
92. **University of Texas at Dallas**, “Are MOFs *et al.* really the next best thing since sliced bread? Case studies for fundamental "anti-organic" chemistry and electronic device apps”, January 29, 2016.
91. **Università di Camerino – Camerino/Italy**, “From Chemistry to Materials Science and Technology: Design of Metal-Organic Materials with Variable Molecular Complexities toward Energy, Biomedical and Sensor Applications”, June 15, 2015.
90. **Università dell'Insubria – Como/Italy**, “From Chemistry to Materials Science and Technology: Design of Metal-Organic Materials with Variable Molecular Complexities toward Energy, Biomedical and Sensor Applications (a.k.a. “Apps”). Lecture 2: Metal-organic materials and nanocomposites made smart for a spectrum of biomedical apps”, June 11, 2015.
89. **Università dell'Insubria – Como/Italy**, “From Chemistry to Materials Science and Technology: Design of Metal-Organic Materials with Variable Molecular Complexities toward Energy, Biomedical and Sensor Applications (a.k.a. “Apps”). Lecture 1: Structure-Property Correlations for Energy Apps”, June 11, 2015.
88. **UNT Health Science Center – Ft. Worth/TX**, “Metal-organic materials and nanocomposites made smart for a spectrum of biomedical apps”, April 1, 2015.
87. **Symposium on Hybrid Functional Porous Materials for Sustainable Energy: Carbon, MOF & Conductive Polymers/249th ACS National Meeting**, “Are MOFs *et al.* really the next best thing since sliced bread? A case study for electronic device apps”, March 22, 2015.
86. **Research Forum on Energy, Water and Resiliency/ PACCAR Technology Institute – University of North Texas**, “Super hydrophobic porous and non-porous materials for a spectrum of energy and protection applications”, February 6, 2015.

85. **Institute of New Energy – Shenzhen/China**, “Advanced Functional Materials Made Smart for a “Spectrum” of Energy, Environmental, and Biomedical Applications”, December 28, 2014.
84. **Institute of New Energy – Shenzhen/China**, “Photobleaching-resistant, thermally-stable, and rare earth-free LED downconversion phosphors”, December 27, 2014.
83. **University of Rochester**, “Advanced Functional Materials Made Smart for a “Spectrum” of Energy, Environmental, and Biomedical Applications”, October 16, 2014.
82. **OLED Stakeholders Meeting/U. S. Department of Energy/EERE-SSL**, “Is it REALLY Time to Raise the “Mission: Accomplished!” Banner for OLED Materials and Device Stacks?”, October 15, 2014.
81. **Metal-Organic Frameworks for Sustainable Energy Symposium/248th ACS National Meeting**, “Functional metal-organic frameworks: “The other FMOFs”/FMOFs 2.0”, August 10, 2014.
80. **University of North Texas – Department of Physics**, “Metal-Organic Materials Made Smart for a Spectrum of Energy-Related and Biomedical Applications”, November 5, 2013.
79. **20th International Symposium on the Photochemistry and Photophysics of Coordination Compounds – Traverse City/Michigan**, “Metal-Organic Electronics: Light-Emitting and Unidirectional Semiconducting Devices Based on Low-Dimensional Late Transition Metal Complexes”, July 8, 2013.
78. **Jerash University – Jerash/Jordan**, “Advanced Functional Materials Made Smart for a “Spectrum” of Energy, Environmental, and Biomedical Applications”, June 30, 2013.
77. **American University in Madaba – Madaba/Jordan**, “Advanced Functional Materials Made Smart for a “Spectrum” of Energy, Environmental, and Biomedical Applications”, June 17, 2013.
76. **Qatar Energy and Environmental Research Institute (QEERI/Qatar Foundation – Doha/Qatar)**, “Advanced Functional Materials Made Smart for a “Spectrum” of Energy, Environmental, and Biomedical Applications”, June 2, 2013.
75. **International Symposium on Organic Solar Cells**, “Intuitive Design of Supramolecular Metal-Organic Black Absorbers toward Next-Generation ‘Organic’ Solar Cells”, Los Alamos National Laboratory, Santa Fe, New Mexico, May 6-8, 2013.
74. **Virginia Commonwealth University**, “Advanced Functional Materials Made Smart for a “Spectrum” of Energy, Environmental, and Biomedical Applications”, April 9, 2013.
73. **NCH - ChemAqua /Green and Sustainable Services, LLC/UNT Trilateral Collaboration Kickoff Symposium**, “Superhydrophobic porous materials: Magical solutions for water purification, fracking, oil spill treatment, sensing of organic pollutants, carbon capture/storage, ETC.”, November 20, 2012.
72. **Joint Qatar Foundation Annual Research Forum and Arab Expatriate Scientists Network Symposium 2012**, “Non-Toxic Hybrid Nanoparticles for Early Cancer Detection and Photothermal Therapy”, October 22, 2012.
71. **Joint Qatar Foundation Annual Research Forum and Arab Expatriate Scientists Network Symposium 2012**, “Metal-Organic Materials Made Smart for a Spectrum of Energy-Saving/Harvesting/Storage and Biomedical Applications”, October 21, 2012.
70. **Physics Colloquium Series at the University of Maine – Department of Physics and Astronomy**, “Smart Nanophotonics and Plasmonics for Reduced Exciton & Polaron Quenching in White OLEDs and for Cancer Therapy & Early Detection”, October 12, 2012.

69. **University of Maine – Department of Chemistry**, “Self-Sensitizing Phosphors and Fluorous MOFs for Comprehensive Energy Solutions”, October 11, 2012.
68. **BioEnvironmental Polymer Society (BEPS) – 20th Annual Conference**, “Biomedical Hydrogels: In Memory of Zhibing Hu”, September 19, 2012.
67. **The Second Annual MEE Research Forum – University of North Texas Mechanical & Energy Engineering Department**, “Metal-organic semiconductors and nanomaterials made smart for a spectrum of energy-saving, harvesting, and storage solutions”, September 18, 2012.
66. **Metal-organic Frameworks for Energy and Fuels Symposium – 244th ACS National Meeting, Philadelphia, PA**, “Ground-breaking fluorous MOFs for oil spill treatment and carbon capture/storage”, August 23, 2012.
65. **Synthetic Inorganic Chemistry: A Great Future Built on 50+ Years of Success (Symposium in Honor of John P. Fackler Jr.) – 244th ACS National Meeting, Philadelphia, PA**, “From interesting complexes to optoelectronic devices: A decade worth of investigations post-Fackler mentorship”, August 21, 2012.
64. **Alternative & Sustainable Energy Systems International Workshop, University of North Texas**, “Metal-Organic Materials Made Smart for a Spectrum of Energy-Related Applications”, June 26, 2012.
63. **University of California at Berkeley**, “Metal-Organic Materials Made Smart for a Spectrum of Energy-Related and Biomedical Applications”, June 12, 2012.
62. **King Abdullah University of Science & Technology (Thuwal/Saudi Arabia) – Winter Enrichment Program**, “Paint-it Yourself Home Lighting Technology. Part 2: Device Physics and Optimization for Efficacy and White Color Metrics”, January 18, 2012.
61. **King Abdullah University of Science & Technology (Thuwal/Saudi Arabia) – Winter Enrichment Program**, “Paint-it Yourself Home Lighting Technology. Part 1: Development of Phosphorescent Materials”, January 17, 2012.
60. **Qatar Foundation and Texas A&M-Qatar – Doha/Qatar**, “Metal-Organic Materials Made Smart for a Spectrum of Energy-Related and Biomedical Applications”, January 16, 2012.
59. **University of North Texas – College of Arts and Sciences General Faculty Meeting**, “Metal-Organic Materials Made Smart for a Spectrum of Energy-Saving and Biomedical Applications”, October 25, 2011.
58. **Jordan University of Science and Technology – Irbid/Jordan**, “Metal-Organic Materials Made Smart for a Spectrum of Biomedical and Energy-Saving Applications”, July 19, 2011.
57. **Yarmouk University – Irbid/Jordan**, “Metal-Organic Materials Made Smart for a Spectrum of Energy-Saving and Biomedical Applications”, July 7, 2011.
56. **MONOJO (Jordan Company for Antibody Production) and ASRF (Applied Scientific Research Fund) – Amman/Jordan**, “Metal-Organic Materials Made Smart for a Spectrum of Biomedical and Energy-Saving Applications”, June 23, 2011.
55. **Hashimite University – Zarqua/Jordan**, “Metal-Organic Materials Made Smart for a Spectrum of Energy-Saving and Biomedical Applications”, June 20, 2011.
54. **F. Albert Cotton Award in Inorganic Chemistry: Symposium in Honor of Alan L. Balch - 241st ACS National Meeting, Anaheim, CA**, “Balch-Influenced Chemistry, Photophysics, and Molecular Electronics of Gold(I) Complexes”, March 27-31, 2011.

53. **Chemical and Biological Defense Science and Technology (CBD S&T) Conference, Orlando, Florida – U. S. Department of Defense**, "Fluorous Metal Organic Frameworks for Volatile Organic Vapor Adsorption and Detection", November 16, 2010.
52. **University of Texas at Dallas**, "Metal-Organic Materials Made Smart for Energy-Saving and Biomedical Applications", October 1, 2010.
51. **SPIE Photonic Devices and Applications - Organic Light Emitting Materials and Devices XIV Symposium**, "Bright phosphors for white and monochrome OLEDs based on transition metal complexes besides Ir(III) phenylpyridines", August 1, 2010.
50. **Austin College**, "Metal-Organic Materials Made Smart for Energy-Saving and Biomedical Applications", March 24, 2010.
49. **Texas Woman's University**, "Metal-Organic Materials Made Smart for Energy-Saving and Biomedical Applications", February 16, 2010.
48. **University of Tulsa**, "World-Record White and Monochrome Organic Light-Emitting Diodes from a Single Phosphorescent Complex", October 19, 2009.
47. **University of North Texas-Department of Physics**, "World-Record White and Monochrome Organic Light-Emitting Diodes Upon Integration of Smart Material Design and Device Physics", October 6, 2009.
46. **GOLD 2009: 5th International Conference on the Science, Technology and Applications of Gold**, "Wonder of Gold in Optical and Electronic Devices", Heidelberg, Germany, July 2009. (Invited Keynote Speaker)
45. **UNT Health Science Center in Ft. Worth**, "Introduction of Inorganic Chemistry and Spectroscopy Into Biocompatible Polymers and Live Systems: A New Concept Verified with a World of Potential Biomedical Applications", Fort Worth, Texas, March 11, 2009.
44. **Southeastern Oklahoma State University**, "Metal-Organic Nanomaterials for Energy-Saving Applications", October 9, 2008.
43. **Massachusetts Institute of Technology**, "Metal-Organic Nanomaterials for Energy-Saving Applications", August 14, 2008.
42. **NSF Inorganic Workshop** (National Peer-Reviewed Competition), "Metallo-organometallics: Fundamentals in metalloaromaticity and applications in electronic devices", June 2008.
41. **University of North Texas-Department of Chemistry**, "Metal-Organic Nanomaterials for Energy-Saving Applications", April 11, 2008.
40. **North Carolina A & T State University**, "Metal-Organic Nanomaterials for Energy-Saving Applications", March 13, 2008.
39. **Tulane University**, "Metal-Organic Nanomaterials for Energy-Saving Applications", February 25, 2008.
38. **Bowling Green State University**, "Metal-Organic Nanomaterials for Energy-Saving Applications", February 20, 2008.
37. **University of North Texas-Department of Materials Science and Engineering**, "Metal-Organic Nanomaterials for Energy-Saving Applications", November 14, 2007.
36. **NanoTX'07**, "Metal-Organic Nanomaterials for Energy-Saving Applications", Alan MacDiarmid Memorial Energy Summit 2, NanoTX'07 meeting, October 3, 2007, Dallas, TX.
35. **Texas Woman's University**, "Introduction of Inorganic Chemistry and Spectroscopy Into Biocompatible Hydrogels and Polymers: A New Concept Verified with a World of Potential Biomedical Applications", September 14, 2007.

34. ***Illuminating Molecules***, "Phosphorescent OLEDs and PLEDs Based on d^{10} Molecular Materials", An international symposium during the 39th Central Regional American Chemical Society Meeting, Covington, Kentucky, May 20-23, 2007, CRM-491.
33. ***Nanomaterials Application Center – Nanotechnology Colloquium Series***, "Molecular Metal-Organic Materials Made Smart for Energy-Saving Applications", April 16, 2007.
32. ***University of Texas at Austin***, "Brightly-Phosphorescent and Strongly-Absorbing Coinage Metal Complexes: Fundamentals and Potential Applications for Light-Emitting Diodes and Solar Energy Conversion", November 8, 2006.
31. ***Symposium on Chemical Utilization of Solar Energy***, "Polyimine d^8 donor complexes and adducts with organic acceptors for optoelectronic applications", 62nd Southwest Regional Meeting of the American Chemical Society, Houston Westchase Marriott Hotel, Houston, Texas, October 20-21, 2006.
30. ***Jordan University of Science and Technology – Irbid/Jordan***, "Brightly-Phosphorescent and Strongly-Absorbing Coinage Metal Complexes: Fundamentals and Potential Applications for Light-Emitting Diodes and Solar Energy Conversion", Irbid, Jordan, July 18, 2006.
29. ***Jordan University – Amman/Jordan***, "Brightly-Phosphorescent and Strongly-Absorbing Coinage Metal Complexes: Fundamentals and Potential Applications for Light-Emitting Diodes and Solar Energy Conversion", Amman, Jordan, July 13, 2006.
28. ***Yarmouk University – Irbid/Jordan***, "Brightly-Phosphorescent and Strongly-Absorbing Coinage Metal Complexes: Fundamentals and Potential Applications for Light-Emitting Diodes and Solar Energy Conversion", Irbid, Jordan, July 10, 2006.
27. ***17th Inter-American Photochemical Society Meeting***, "Bright, Tunable Coinage Metal Phosphors", Salvador, Bahia, Brazil, June 12, 2006. (***Award Talk, 2006 I-APS Young Investigator Award***)
26. ***Georgia Institute of Technology – Cherry Emerson Seminar Series***, "Brightly-Phosphorescent and Strongly-Absorbing Coinage Metal Complexes: Fundamentals and Potential Applications for Light-Emitting Diodes and Solar Energy Conversion", Atlanta, Georgia, February 21, 2006.
25. ***JSPS–UNT Joint International Symposium on Nanoscale Materials for Optoelectronics and Biotechnology***, "Fundamental and Applied Photonic Studies of Phosphorescent Small- and Macro-Molecules", University of North Texas, Denton, Texas, February 1-2, 2006.
24. ***Oklahoma State University***, "Brightly-Phosphorescent and Strongly-Absorbing Materials: Fundamentals and Potential Applications for Light-Emitting Diodes and Solar Energy Conversion", Stillwater, Oklahoma, October 6, 2005.
23. ***Naval Research Laboratory***, "Photonic Processes in Small and Macromolecules", Optical Sciences Division, Washington, D.C., August 30, 2005.
22. ***International Symposium on Excited State Processes in Electronic and Bio Nanomaterials***, "Custom-making Phosphors for Solid-State Lighting via Photoinduced Jahn-Teller Distortions, Heavy-atom Effect, and Energy Transfer", Los Alamos National Laboratory, Santa Fe, New Mexico, August 8-11 2005.
21. ***16th International Symposium on the Photochemistry and Photophysics of Coordination Compounds***, "Photonic Processes in Closed-Shell and Lanthanide Complexes in Macromolecules", Pacific Grove, California, July 2-6, 2005.
20. ***University at Buffalo, SUNY***, "Fascination with Light: Simultaneous Advances in Fundamental and Applied Research Involving Phosphorescent Complexes", March 5, 2005.

19. **University of North Texas**, "Fascination with Light: Simultaneous Advances in Fundamental and Applied Research Involving Excited Transient Species", February 4, 2005.
18. **University of Texas at Dallas**, "Phosphorescent Transition Metal Complexes for Light-Emitting, Light-Harvesting, and Sensing Applications", November 17, 2004.
17. **University of Nevada-Reno**, "Phosphorescent Transition Metal Complexes for Light-Emitting and Light-Harvesting Applications", November 5, 2004.
16. **The Ohio State University**, "Fundamental and Applied Areas in the Investigation of Phosphorescent Materials Containing Heavy Metals", October 20, 2004.
15. **University of Cincinnati**, "Phosphorescent d^{10} and d^8 Complexes: Fundamentals and Potential Optoelectronic Applications", October 19, 2004.
14. **University of California, Santa Barbara**, "Phosphorescent d^{10} and d^8 Complexes: Fundamentals and Potential Optoelectronic Applications", October 13, 2004.
13. **California Institute of Technology**, "Phosphorescent d^{10} and d^8 Complexes: Fundamentals and Potential Optoelectronic Applications", October 11, 2004.
12. **University of California, San Diego**, "Phosphorescent d^{10} and d^8 Complexes: Fundamentals and Potential Optoelectronic Applications", October 8, 2004.
11. **University of California, Los Angeles**, "Fundamental and Applied Research Involving Phosphorescent d^{10} and d^8 Complexes", October 6, 2004.
10. **University of Southern California**, "Phosphorescent d^{10} and d^8 Complexes: Fundamentals and Potential Optoelectronic Applications", October 5, 2004.
9. **Baylor University**, "Tuning the Emission and Absorption Properties of Metal Complexes for Use in Light-Emitting and -Harvesting Applications", September 3, 2004.
8. **Hashimite University – Zarqua/Jordan**, "Phosphorescent Metal Complexes for Light-Emitting and Light-Harvesting Devices", September 3, 2004.
7. **Southeastern Louisiana State University** "The Amazing 21st Century Chemistry of Silver Nitrate!", March 19, 2004.
6. **Louisiana State University** "Questioning the Dogmas in the Literature of Inorganic Spectroscopy", March 16, 2004.
5. **University of Texas at San Antonio** "Huge Excited-State Distortions via the Jahn-Teller Effect and Photo-induced Metal-Metal Bonding", March 8, 2004.
4. **Angelo State University**, ""Research for the Classroom": Two Success Stories", February 23, 2004.
3. **Wichita State University**, "Systematic Design of Brightly Phosphorescent Materials for Photonic Devices and of Strong-Absorbing Materials for Solar Cell Devices", December 16, 2003.
2. **The University of Texas at Arlington**, "Unusually Remarkable Luminescence and Absorption Properties of Gold(I) and Platinum(II) Complexes", August 30, 2002.
1. **Lyon College**, "Luminescent Materials of Closed-Shell Complexes: Scientific Fun and Optoelectronic Applications", March 12, 2002.

D. Conference Presentations/Abstracts

289. Zhou's talk at the Pacificchem conference.
288. **Omary, M.**; Fripp, J.; Almotawa, R.; Arvapally, R.; Mandal, S.; Shi, S. "“Green Fracking” vs “Don't Frack with Texas”", *Abstracts, 2001 Southwest Regional Meeting of the American Chemical Society*, Austin, TX, United States, October 31 - November 3 (2021), *MOF Chemistry in the Southwest Symposium*, SWRM 377. **INVITED SPEAKER**
287. SWRM/Sheikh
286. SWRM/Jacob
285. SWRM/Shan
284. SWRM/Zhou
283. SWRM/Kurt2
282. SWRM/Kurt1
281. ACS Atlanta Kurt
280. ACS Atlanta Hassan
279. Farvid, Seyedmajid; Marpu, Sreekar Babu; **Omary, Mohammad A.** "Studying photophysical properties of pyridylazolate platinum(II) complexes for OLED applications", *Abstracts of Papers, 259th ACS National Meeting & Exposition*, Philadelphia, PA, United States, March 22-26, 2020 (2020), INOR-0839.
278. Mirza Nasiri, Nooshin; Marpu, Sreekar Babu; Simmons, Denise Perry; **Omary, Mohammad A.**; Robey, Robert; Gottesman, Michael "Gold PLGA -masked NPs bypass P-glycoprotein pump and are internalized in a model of MDR cancer cells", *Abstracts of Papers, 259th ACS National Meeting & Exposition*, Philadelphia, PA, United States, March 22-26, 2020 (2020), MEDI-0358.
277. **Omary, M. A.**; Marpu, Sreekar Babu; Perera, Nawagamu A. K. R.; Garcia, Daniella "Optimizing the stability of an optical bio-sensor for differentiating free silver ions (Ag⁺) from silver nanoparticles (AgNPs) in biological medium", *Abstracts of Papers, 259th ACS National Meeting & Exposition*, Philadelphia, PA, United States, March 22-26, 2020 (2020), ANYL-0145.
276. Alamo, Domllermut; Cruz, Katheryn Renea; Yaseen, Waleed; Bodenstedt, Kurt; Li, Shan; Marpu, Sreekar B.; **Omary, M. A.** "PIFPC-01: Photo-induced fluorinated polymer coating for the protection of OLEDs and electronics against redox reactions", *Abstracts of Papers, 258th ACS National Meeting & Exposition*, San Diego, CA, United States, August 25-29, 2019 (2019), PMSE-0308.
275. Mirza Nasiri, Nooshin; Kamras, Brian; Marpu, Sreekar B.; Simmons, Denise P.; Petros, Robby A.; **Omary, M. A.** "New synthesis methodology for making FITC labeled PMMA nanoparticles: Understanding effect of crosslinked vs. surfactant-stabilized nanoparticles on conjugation", *Abstracts of Papers, 258th ACS National Meeting & Exposition*, San Diego, CA, United States, August 25-29, 2019 (2019), COLL-0437.
274. **Omary, M. A.** "An "All the Above" Comprehensive Strategy for Real Solutions of the Worldwide Energy Problem", *2019 Frontier Technology International Forum and New Product Launch Conference*, Jiashan/China, July 20, 2019. **INVITED SPEAKER/KEYNOTE SEMINAR**
273. **Omary, M. A.**; Al-Hmoud, D. H.; Kharma, M. A.; Rawashdeh, A.-M. M. "First "Made in Jordan" OLEDs: Effect of Doping on Neat vs Doped Fluorescent and Phosphorescent Device Structures", Abstract accepted for presentation at the *23rd International Symposium on the Photochemistry and Photophysics of Coordination Compounds*, City University of Hong Kong, July 14-19, 2019. **INVITED SPEAKER**
272. **Omary, M. A.** "Reality vs myth regarding fluorophores or phosphors with beyond-unity quantum yield", *2019 FluoroFest – the international workshop on fluorescence techniques, applications and innovation*, Texas Christian University, Ft. Worth, Texas, May 21-23, 2019. **INVITED SPEAKER**
271. Harris, L.; **Omary, M. A.** "Monovalent coinage metals and dithiophosphonate based ligands for functional materials", *Abstracts of Papers, 257th ACS National Meeting & Exposition*, Orlando, FL, United States, Mar. 31-Apr. 4, 2019 (2019), INOR-1064.

270. Melancon, K.; **Omary, M. A.** "Bonding studies in supramolecular assemblies of ion-paired mononuclear ionic complexes", *Abstracts of Papers, 257th ACS National Meeting & Exposition*, Orlando, FL, United States, Mar. 31-Apr. 4, 2019 (2019), INOR-0978.
269. Burson, C.; Bodenstedt, K.; Li, S.; **Omary, M. A.** "Optimization of a classic organic light emitting diode device", *Abstracts of Papers, 257th ACS National Meeting & Exposition*, Orlando, FL, United States, Mar. 31-Apr. 4, 2019 (2019), INOR-0638.
268. Ericson, M. N.; **Omary, M. A.** "Computational/experimental study on metal cation- π sandwich adducts", *Abstracts of Papers, 257th ACS National Meeting & Exposition*, Orlando, FL, United States, Mar. 31-Apr. 4, 2019 (2019), INOR-0238.
267. Harris, L. M.; Mitch, R.; Nesterov, V.; Ghimire, M. M.; **Omary, M. A.** "Highly efficient heteroleptic monovalent coinage metal phosphors for modern display, signage and lighting apps", *Abstracts of Papers, 257th ACS National Meeting & Exposition*, Orlando, FL, United States, Mar. 31-Apr. 4, 2019 (2019), INOR-0237.
266. Ericson, M. N.; Marpu, S.; **Omary, M. A.** "Neutral red as a pH luminescent sensor for carbon dioxide studies", *Abstracts of Papers, 257th ACS National Meeting & Exposition*, Orlando, FL, United States, Mar. 31-Apr. 4, 2019 (2019), ANYL-0227.
265. Harris, L.M.; **Omary, M.A.** "d10 Trinuclear coinage metal complexes with carbenate and pyrazolate ligands for applications in OLED and LED technologies", *Abstracts, 74th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, United States, November 7-10 (2018), SWRM 309.
264. Ericson, M.N.; **Omary, M.A.** "Computational study on the complexation of monovalent silver to a trinuclear gold(I) pyrazolate chemosensor", *Abstracts, 74th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, United States, November 7-10 (2018), SWRM 308.
263. Harris, L.M.; Jodray, L.M.; Ericson, M. N.; **Omary, M.A.** "Research for the classroom, Big Picture Projects 2018: Functional materials and coordination complexes, from d10 coinage metals and dithiophosphonate-based ligands", *Abstracts, 74th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, United States, November 7-10 (2018), SWRM 304.
262. De La Cruz, N.B.; Hoshikawa-Halbert, J.; Benton, E.N.; **Omary, M.A.**; Marpu, S.B. "Eu(III)-complexes with helper 'antenna' ligands with red-shifted excitations for pH/CO₂ molecular sensors". *Abstracts, 74th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, United States, November 7-10 (2018), SWRM 190.
261. Melancon, K; Otten, B.M.; **Omary, M.A.** "Bonding studies of heterobimetallic complexes containing closed-shell metal centers", *Abstracts, 74th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, United States, November 7-10 (2018), SWRM 145.
260. Kamras, B.; **Omary, M. A.** "In situ synthesis, photophysical, and catalytic properties of "ligand-less" nanoparticle@FMOF-1 nanostructures formed via liquid phase epitaxy/ripening", *Abstracts of Papers, 256th ACS National Meeting & Exposition*, Boston, MA, USA, August 19-23, 2018 (2018), INOR-473.
259. Nicholas, A. D.; Otten, B. M.; **Omary, M. A.**; Pike, R. D.; Patterson, H. H. "Optical memory in 1D chain noble metal thiocyanate complexes", *Abstracts of Papers, 256th ACS National Meeting & Exposition*, Boston, MA, USA, August 19-23, 2018 (2018), INOR-759.
258. Yaseen, W.; Marpu, S. B.; Golden, T. D.; **Omary, M. A.** "Enhancing the utilization of fluorinated cross-linked polymers for corrosion protection", *Abstracts of Papers, 256th ACS National Meeting & Exposition*, Boston, MA, USA, August 19-23, 2018 (2018), INOR-102.
257. **Omary, M. A.** "We Mean Green: A Perfect Blend of Bamboo, UNT, and Energy/Environmental Apps of Superhydrophobic Hybrid Molecular/Biomass Materials", *Global Bamboo and Rattan Congress – Beijing/China*, June 27, 2018.
256. Farmer, P. J; Han, X.; Kumar, M.; **Omary, M. A.**; Ghimire, M. M. "Photo-induced oxygenations of Ru(II) bisbipyridyl flavonolate complexes", *Abstracts of Papers, 255th ACS National Meeting & Exposition*, New Orleans, LA, USA, March 18-22, 2018 (2018), INOR-71.

255. Melancon, K. M.; Otten, B. M.; **Omary, M. A.** "To be or not to be: Bonding studies in heterobimetallic d^{10} - d^{10} centers", *Abstracts of Papers, 255th ACS National Meeting & Exposition*, New Orleans, LA, USA, March 18-22, 2018 (2018), INOR-701.
254. Avila, Y. I.; Perry Simmons, D.; **Omary, M. A.** "Protein corona formation: Investigating the effects of cell culture growth media on nanoparticle size, stability, and net charge", *Abstracts of Papers, 255th ACS National Meeting & Exposition*, New Orleans, LA, USA, March 18-22, 2018 (2018), CHED-1276.
253. Avila, Y. I.; Korir, D.; Perry Simmons, D.; **Omary, M. A.** "Laser-induced Metallic Poly(Methyl Methacrylate) Nanoparticle: *In Vitro* Biofluid Model Informs Nanoparticle Design and *In vivo* Biomolecule Interaction" *CPRIT Innovations in Cancer Prevention and Research Conference*, Austin, Texas, November 13-14, 2017, Paper #270.
252. Mirza Nasiri, N.; Robey, R.; Ali-Rahmani, F.; Gottesman, M.; Perry Simmons, D.; **Omary, M. A.** "Laser-induced Metallic Poly(Methyl Methacrylate) Nanoparticle: *In Vitro* Biofluid Model Informs Nanoparticle Design and *In vivo* Biomolecule Interaction" *CPRIT Innovations in Cancer Prevention and Research Conference*, Austin, Texas, November 13-14, 2017, Paper #113.
251. Almotawa, R. M.; Savage, K.; Behnia, F.; Nesterov, V.; Rawashdeh-Omary, M.; **Omary, M. A.** "Synthesis and characterization of heteroleptic $[Cu(P^A P)(N^A N)]^+$ complexes", *Abstracts, 73rd Southwest Regional Meeting of the American Chemical Society*, Lubbock, TX, United States, October 29-November 1 (2017), SWRM-337.
250. Benton, E. N.; Marpu, S. B.; **Omary, M. A.** "Sensing silver ion leakage from silver nanoparticles", *Abstracts, 73rd Southwest Regional Meeting of the American Chemical Society*, Lubbock, TX, United States, October 29-November 1 (2017), SWRM-299.
249. Otten, B. M.; **Omary, M. A.** " d^{10} - d^{10} Bonding schemes: Computational study of covalency", *Abstracts, 73rd Southwest Regional Meeting of the American Chemical Society*, Lubbock, TX, United States, October 29-November 1 (2017), SWRM-241.
248. Mohan, A.; Marpu, S.; Korir, D.; Perry Simmons, D.; **Omary, M. A.** "Development of a polymeric Ag(I)-based protein corona biointerface for versatile drug delivery systems *in vitro*", *Abstracts, 73rd Southwest Regional Meeting of the American Chemical Society*, Lubbock, TX, United States, October 29-November 1 (2017), SWRM-68.
247. Avila, Y. I.; Perry Simmons, D.; **Omary, M. A.** "Protein Corona Formation: Investigating the Effects of Cell Culture Growth Media on Nanoparticle Size, Stability, and Net Charge" *Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) Conference*, Salt Lake City, Utah, October 19-21, 2017.
246. **Omary, M. A.**; Otten, B. M.; Melancon, K. M.; Ghimire, M. M.; Rawashdeh-Omary, M. A. "Dawn rise of new M-M' bonds: An experimental/theoretical 21st-century approach to "Alchemize" gold *en route* to sensitizing genuine, ligand-unassisted d^{10} - d^{10} covalent metal-metal bonds", *Abstracts of Papers, 254th ACS National Meeting & Exposition, Washington, DC, USA, August 20-24, 2017 (2017)*, PHYS-62.
245. Melancon, K. M.; Otten, B. M.; **Omary, M. A.** "To be or not to be: d^{10} - d^{10} bonding in heterometallic complexes", *Abstracts of Papers, 254th ACS National Meeting & Exposition, Washington, DC, USA, August 20-24, 2017 (2017)*, INOR-283.
244. Yaseen, W.; Marpu, S.; Golden, T.; **Omary, M. A.** "Synthesis of new hydrophobic, fluorinated, and cross-linked polymers and their use for corrosion protection of aluminum substrates", *Abstracts of Papers, 254th ACS National Meeting & Exposition, Washington, DC, USA, August 20-24, 2017 (2017)*, INOR-618.
243. **Omary, M. A.**; Otten, B. M.; Melancon, K. M.; Ghimire, M. M.; Rawashdeh-Omary, M. A. "Dawn Rise of New M-M' Bonds: An Experimental/Theoretical 21st-Century Approach to "Alchemize" Gold *en route* to Sensitize Genuine, Ligand-Unassisted d^{10} - d^{10} Covalent Metal-Metal Bonds" *International Conference on Theoretical Chemistry and Modeling/ Conférence Internationale de Chimie Théorique et Modélisation*, Kenitra/Morocco. March 16-17, 2017.
242. Rabaâ, H.; Stefan, T.; **Omary, M. A.**; Sundholm, D. "Aurophilic vs Columbic Interactions in Luminescent Trigold Carbeniate Complexes: A Theoretical Investigation of Large Cluster

- Models” *International Conference on Theoretical Chemistry and Modeling/ Conférence Internationale de Chimie Théorique et Modélisation*, Kenitra/Morocco. March 16-17, 2017.
241. Williams, C.; Benton, E. N.; Marpu, S. B.; **Omary, M. A.** “White light from hybrid water soluble Au (I) phosphor systems for OLED applications”, *253rd ACS National Meeting & Exposition*, San Francisco, CA, United States, April 2-6, 2017 (2017), PROF-16.
240. Salazar-Garza, G. A.; Hua, B.; Williams, C. M.; Nesterov, V.; **Omary, M. A.** “Systematic study of luminescence rigidochromism on ambipolar polyimine rhenium(I) complexes”, *253rd ACS National Meeting & Exposition*, San Francisco, CA, United States, April 2-6, 2017, INOR-1241.
239. Ivy, J.; **Omary, M. A.** “Crystal engineering of metal-inorganic frameworks from phosphorescent building blocks”, *253rd ACS National Meeting & Exposition*, San Francisco, CA, United States, April 2-6, 2017, INOR-1043.
238. Hua, B.; Salazar-Garza, G. A.; Williams, C. M.; Nesterov, V.; **Omary, M. A.** “Systematic microwave-assisted synthesis of rhodium(I) and iridium(I) complexes with ambipolar polyimine ligands and the effect of the ligand’s functional groups on their photophysical properties”, *253rd ACS National Meeting & Exposition*, San Francisco, CA, United States, April 2-6, 2017, CHED-1096.
237. Kim, J. C.; Lee, J.; Batagoda, T. S.; Saris, P.; Kaipa, U.; Oswald, I. W. H.; **Omary, M. A.**; Thompson, M. E.; Forrest, S. R. “Control of Molecular Orientation and Film Crystallinity in Organic Light-Emitting Devices”, *2016 MRS Fall Meeting & Exhibit*, November 26-December 2, 2016, EM4.8.12.
236. Otten, B.; Bagus, P. S.; **Omary, M. A.** “Giant Texas-sized spin-orbit splitting in Au(I)-phosphine complexes”, *72nd Southwest Regional Meeting of the American Chemical Society*, Galveston, TX, United States, November 10-13 (2016), SWRM-673.
235. Ghimire, M. M.; Nesterov, V. N.; **Omary, M. A.** “Violet-to-red luminescence thermochromism in gold (I) cyclic trinuclear complexes”, *72nd Southwest Regional Meeting of the American Chemical Society*, Galveston, TX, United States, November 10-13 (2016), SWRM-672.
234. Ghimire, M. M.; Simon, O. C.; Nesterov, V. N.; Macchioni, A.; Zuccaccia, C.; Galassi, R.; **Omary, M. A.** “Integrated stacking motifs of TTF-like donors and cyclic trinuclear acceptor complexes of monovalent coinage metals: Supramolecular structures, magento-opto-electronic properties, and potential apps”, *72nd Southwest Regional Meeting of the American Chemical Society*, Galveston, TX, United States, November 10-13 (2016), SWRM-448.
233. Ghimire, M. M.; Benton, E. N.; Almotawa, R. M.; Savage, K. D.; Harris, L. M.; Philip, P.; Prieto, B.; Vogel, S. E.; Kernen, B. P.; Naylor, B. N.; Perry, C.; Moulder, C.; Churchil, B. N.; Kennard, S. K.; Peterson, A. J.; Solomon, R.; Turrubiardez, A. A.; Musick, E. A.; Turner, J. L.; Johnson, D. T.; McConkey, J. C.; Paredes, J. A.; Sengphanlaya, T. M.; **Omary, M. A.** “Research for the classroom big picture projects 2016: Monovalent copper diimine-based functional coordination polymers as potential solar cell materials”, *72nd Southwest Regional Meeting of the American Chemical Society*, Galveston, TX, United States, November 10-13 (2016), SWRM-143.
232. Otten, B.; Ghimire, M. M.; Tekarli, S.; **Omary, M. A.** “Computational/experimental investigation of oxidative addition and photoinduced reductive elimination in coinage metal cyclotrimers and aggregates thereof: Toward next-generation classes of photocatalysts”, *72nd Southwest Regional Meeting of the American Chemical Society*, Galveston, TX, United States, November 10-13 (2016), SWRM-136.
231. Ghimire, M. M.; Almotawa, R. M.; Benton, E. N.; Harris, L. M.; Fontaine, S. L.; Claudio, J. L.; Rydberg, N. L.; Davis, K. M.; Williams, K. M.; Savage, K. D.; Huang, I.; Tudor, L. B.; Ojuanna K. T.; Sasiene, Z. J.; Calhoun, M. C.; Malone, T. A.; Pipersburgh, L. L.; Stoffels, S. R.; Buss, B. K.; Orozco, I.; Garcia, R. A.; Klein, A. A.; Hause, S. L.; Stallworth, S. P.; Guess, S. H.; Jackson, M. G.; Singleton, H. L.; Inguanzo, O.; **Omary, M. A.** “Monovalent copper diphosphine-based functional coordination oligomers as potential led phosphors”, *72nd Southwest Regional Meeting of the American Chemical Society*, Galveston, TX, United States, November 10-13 (2016), SWRM-133.
230. Williams, C.; Marpu, S. B.; **Omary, M. A.** “White light from hybrid water soluble Au (I) phosphor systems for OLED applications”, *Abstracts, 68th Southeastern Regional Meeting of*

the American Chemical Society, Columbia, SC, United States, October 23-26 (2016), SERMACS-375.

229. Ghimire, M. M.; Camille Simon, O.; Nesterov, V. N.; Macchioni, A.; Zuccaccia, C.; Galassi, R.; **Omary, M. A.** "Integrated stacking motifs of TTF-like donors and cyclic trinuclear acceptor complexes of monovalent coinage metals: Supramolecular structures, magento-opto-electronic properties and potential apps", *252nd ACS National Meeting & Exposition*, Philadelphia, PA, United States, August 21-25, 2016 (2016), INOR-666.
228. **Omary, M. A.**; Almotawa, R.; Ivy, J.; Yaseen, W.; Marpu, S.; Rawashdeh-Omary, M. "Latest and greatest about the other FMOFs and their non-porous congeners", *252nd ACS National Meeting & Exposition*, Philadelphia, PA, United States, August 21-25, 2016 (2016), INOR-243.
227. Otten, B.; Ghimire, M.; Tekarli, S.; **Omary, M. A.** "Computational/experimental investigation of oxidative addition and photoinduced reductive elimination in coinage metal cyclotrimers and aggregates thereof: Toward next-generation classes of photocatalysts", *252nd ACS National Meeting & Exposition*, Philadelphia, PA, United States, August 21-25, 2016 (2016), INOR-664.
226. **Omary, M. A.**; Otten, B.; Bagus, P. S. "Giant spin-orbit splitting in Au(I)-phosphine complexes", *252nd ACS National Meeting & Exposition*, Philadelphia, PA, United States, August 21-25, 2016 (2016), INOR-539.
225. Ghimire, M. M.; Nesterov, V. N.; **Omary, M. A.** "Violet-to-red luminescence thermochromism in gold (I) cyclic trinuclear complexes", *252nd ACS National Meeting & Exposition*, Philadelphia, PA, United States, August 21-25, 2016 (2016), INOR-665.
224. Almotawa, R. M.; Cimino, A.; Nesterov, V.; Rawashdeh-Omary, M. A.; **Omary, M. A.** "Synthesis and characterization of Cu(I) and Ag(I) tetrazolate complexes toward active or passive components of electronic devices", Abstracts of Papers, *251st ACS National Meeting & Exposition*, San Diego, CA, United States, March 13-17, 2016, INOR-828.
223. Chilukuri, B.; McDougald, R.; Hipps, U. M.; **Omary, M. A.**; Hipps, K. W. "Epitaxial self-assembly of polymorphic, porous, and host-guest nanostructures on surfaces using monolayer-substrate interactions", Abstracts of Papers, *251st ACS National Meeting & Exposition*, San Diego, CA, United States, March 13-17, 2016, COLL-529.
222. Salazar-Garza, G. A.; Williams, C. M.; Nesterov, V.; Yang, C.; **Omary, M. A.** "Microwave-assisted synthesis and luminescence rigidochromism for ambipolar polyimines and rhenium (I) complexes thereof", *67th Southeast/71st Southwest Joint Regional Meeting of the American Chemical Society*, Memphis, TN, United States, November 4-7 (2015), SERMACS-SWRM-226.
221. Yaseen, W. K.; Rawshdeh, M.; **Omary, M. A.**; Golden, T.; Nasrazadani, S. "Utilizing hydrophobic coatings in corrosion protection and anti-icing", *67th Southeast/71st Southwest Joint Regional Meeting of the American Chemical Society*, Memphis, TN, United States, November 4-7 (2015), SERMACS-SWRM-182.
220. Almotawa, R. M.; Cimino, A.; Nesterov, V.; Galli, S.; Maspero, A.; **Omary, M. A.** "Metal-tetrazolate trinuclear complexes and functional non-porous coordination polymers", *67th Southeast/71st Southwest Joint Regional Meeting of the American Chemical Society*, Memphis, TN, United States, November 4-7 (2015), SERMACS-SWRM-181.
219. Korir, D.; Hilgemier, A.; **Omary, M. A.** "Photochemical synthesis of silver and gold-silver alloy nanoparticles with tunable plasmonic absorption via aqueous and biocompatible media", *67th Southeast/71st Southwest Joint Regional Meeting of the American Chemical Society*, Memphis, TN, United States, November 4-7 (2015), SERMACS-SWRM-98.
218. Cimino, A.; Maspero, A.; Galli, S.; Giacobbe, C.; Palmisano, G.; Yang, C.; Tekarli, S.; **Omary, M. A.** "Synthesis, structural features, and dielectric properties of coordination polymers based

- on poly(azolate) ligands”, Abstracts of Papers, *249th ACS National Meeting & Exposition*, Denver, CO, United States, March 22-26, 2015, FLUO-21.
217. **Omary, M. A.**; Cimino, A.; Almotawa, R. M.; Maspero, A.; Giacobbe, C.; Palmisano, G.; Yang, C.; Ivy, J. F.; Williams, C.; Galli, S. “Are MOFs *et al.* really the next best thing since sliced bread? A case study for electronic device apps”, Abstracts of Papers, *249th ACS National Meeting & Exposition*, Denver, CO, United States, March 22-26, 2015, ENFL-40.
216. Browning, C.; Nesterov, V.; **Omary, M. A.** “Square planar compound (4, 4'-t-butyl-2,2'-bipyridine)(quinoxaline-3,4-dithiolate) platinum(II) fails spectacularly as a solar cell material”, *70th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, November 19-22, 2014, SWRM-442.
215. Ghimire, M. M.; Munro, L. B.; Catalano, V. J.; **Omary, M. A.** “Photophysical properties and applications of Cu(I) NHC-bridged complexes”, *70th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, November 19-22, 2014, SWRM-278.
214. Ghimire, M. M.; Ruch, A. A.; Murie-Harting, M.; Slaughter, L. M.; **Omary, M. A.** “Internal heavy-atom-effect triggered phosphorescence of aryl-isonitrile gold(I) complexes”, *70th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, November 19-22, 2014, SWRM-277.
213. Pearson, J. C.; Ivy, J. F.; Yang, C.; Kuntz, D. M.; Wilson, A. K.; **Omary, M. A.** “Experimental and grand canonical Monte Carlo simulation studies of gas adsorption in the flexible metal-organic framework FMOF-2”, *70th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, November 19-22, 2014, SWRM-257.
212. Ghimire, M. M.; Tekarli, S. M.; Nesterov, V. N.; **Omary, M. A.** “Synthesis, characterization and photophysical properties of gold(I) imidazolate complexes and complexation thereof with osmium carbonyl clusters”, *70th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, November 19-22, 2014, SWRM-181.
211. Salazar, G. A.; Williams, C. M.; Nesterov, V. N.; Yang, C.; **Omary, M. A.** “Photoluminescence studies of ambipolar polyimine rhenium (I) complexes that exhibit finely-tunable luminescence rigidochromism phenomena in versatile media”, *70th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, November 19-22, 2014, SWRM-179.
210. Ivy, J. F.; Almotawa, R.; Arvapally, R. K.; Yang, C.; **Omary, M. A.** “Photoluminescence properties of silver(I) triazolate-based coordination polymers”, *70th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, November 19-22, 2014, SWRM-161.
209. Cimino, A.; Maspero, A.; Galli, S.; Giacobbe, C.; Palmisano, G.; Yang, C.; Tekarli, S.; **Omary, M. A.** “Metal-organic frameworks with fluorinated poly(azolate) ligands as low-dielectric-constant materials”, *70th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, November 19-22, 2014, SWRM-159.
208. Upadhyay, P. K.; Marpu, S. B.; Benton, E. N.; **Omary, M. A.** “Photoluminescence sensing of heavy metal ions by Au(I)-pyrazolate trimers in aqueous media”, *70th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, November 19-22, 2014, SWRM-32.
207. **Omary, M. A.** “Is it REALLY Time to Raise the "Mission: Accomplished!" Banner for OLED Materials and Device Stacks?”, *OLED Stakeholders Meeting/U. S. Department of Energy/EERE-SSL*, Rochester, New York, October 14-15, 2014.
206. **Omary, M. A.** “Functional metal-organic frameworks: “The other FMOFs”/FMOFs 2.0”, *248th ACS National Meeting*, San Francisco, California, August 10-14, 2014, ENFL-116.
205. **Omary, M. A.** “Anti-Organic Chemistry and Photophysics”, *2014 Gordon Research Conference – Inorganic Chemistry*, Biddeford, Maine, June 8-13, 2014.

204. Tekarli, S. M.; Nesterov, V. N.; **Omary, M. A.**; Galassi, R.; Ricci, S.; Burini, A. "Theoretical investigations of supramolecular chemisorption adducts of volatile small molecules with a trinuclear silver(I) nitrated pyrazolate complex: DFT modeling of dipole-quadrupole interactions", *247th ACS National Meeting*, Dallas, TX, March 16-20, 2014, INOR-823.
203. Upadhyay, P.; Marpu, S.; **Omary, M. A.** "Synthesis, Characterization, and Photophysical Studies of Exceptionally Stable Phosphorescence Polymeric Microspheres with Pt(II) Complexes for Biomedical Applications", *247th ACS National Meeting*, Dallas, TX, March 16-20, 2014, INOR-772.
202. **Omary, M. A.** "Versatile coordination chemistry modes for monovalent coinage metal molecular and supramolecular complexes", *247th ACS National Meeting*, Dallas, TX, March 16-20, 2014, INOR-482.
201. Shahub, A.; **Omary, M. A.**; Oswald, I. "Synthesis and Characterization of d^8 Transition Metal Complexes", *247th ACS National Meeting*, Dallas, TX, March 16-20, 2014, INOR-287.
200. Bruner, B.; Seefeld, T. H.; Satumtira, N.; McDougald, R.; **Omary, M. A.**; da Silva Miranda, F.; Zhang, D.; Selke, M.; Farmer, P. J. "Unusual photochemistry of the heterocyclic ligand, maltol", *69th Southwest Regional Meeting of the American Chemical Society*, Waco, TX, November 16-19, 2013, SWRM-99.
199. **Omary, M. A.** "Intuitive Design of Supramolecular Metal-Organic Black Absorbers toward Next-Generation 'Organic' Solar Cells", *International Symposium on Organic Solar Cells*, Los Alamos National Laboratory, Santa Fe, New Mexico, May 6-8, 2013.
198. McDougald, R. N., Jr.; Ghimire, M.; Chen, A.; El-Bjeirami, O.; Nesterov, V.; **Omary, M. A.** "Cyclic trinuclear d^{10} coinage metal complexes: Structural and photophysical properties of supramolecular aggregates", *245th ACS National Meeting*, New Orleans, LA, April 7-11, 2013, INOR-851.
197. McDougald, R. N., Jr.; Ricci, S.; Nesterov, V.; Galassi, R.; Burini, A.; **Omary, M. A.** "Structural and photophysical properties of heterobimetallic Cu(I)/Au(I) cyclic trinuclear complexes", *245th ACS National Meeting*, New Orleans, LA, April 7-11, 2013, INOR-806.
196. Bruner, B. C.; Seefeld, T. H.; Satumtira, N.; **Omary, M. A.**; Miranda, F.; Zhang, D.; Selke, M.; Van der Veer, W.; Farmer, P. J. "Photochemistry of heterosubstituted-maltol complexes", *245th ACS National Meeting*, New Orleans, LA, April 7-11, 2013, INOR-324.
195. McDougald, R. N., Jr.; El-Bjeirami, O.; Nesterov, V.; **Omary, M. A.** "Cyclic trinuclear gold(I) complexes: Structural and photophysical properties of supramolecular aggregates", *245th ACS National Meeting*, New Orleans, LA, April 7-11, 2013, INOR-178.
194. Horn, L. C.; **Omary, M. A.** "Aqua copper photophysics: Mono- and multi-nuclear phosphorescent Cu(I) complexes in aqueous media", *68th Southwest Regional Meeting of the American Chemical Society*, Baton Rouge, LA, November 4-7, 2012, SWRM-509.
193. Leveille, J. M.; McDougald, R. N., Jr.; **Omary, M. A.** "Physical and photophysical properties of pyrazolate and cyclic trinuclear Cu(I) complex based oligomers and polymers", *68th Southwest Regional Meeting of the American Chemical Society*, Baton Rouge, LA, November 4-7, 2012, SWRM-130.
192. McDougald, R. N., Jr.; El-Bjeirami, O.; Nesterov, V.; **Omary, M. A.** "Structural and photophysical properties of cyclic trinuclear closed shell d^{10} complexes and their metal cation adducts", *68th Southwest Regional Meeting of the American Chemical Society*, Baton Rouge, LA, November 4-7, 2012, SWRM-25.
191. McDougald, R. N., Jr.; Ricci, S.; Nesterov, V.; Galassi, R.; Burini, A.; **Omary, M. A.** "Photophysical properties of imidazolate based cyclic trinuclear Au(I) complexes and their

- metal cation adducts", *68th Southwest Regional Meeting of the American Chemical Society*, Baton Rouge, LA, November 4-7, 2012, SWRM-24.
190. Bruner, B. C.; Seefeld, T. H.; Satumtira, N.; **Omary, M. A.**; Miranda, F.; Zhang, D.; Selke, M.; Farmer, P. J. "Photochemical Studies of Platinum-Maltol Complexes", *68th Southwest Regional Meeting of the American Chemical Society*, Baton Rouge, LA, November 4-7, 2012, SWRM-18.
189. **Omary, M. A.**; Marpu, S. "Non-Toxic Hybrid Nanoparticles for Early Cancer Detection and Photothermal Therapy", *Joint Qatar Foundation Annual Research Forum and Arab Expatriate Scientists Network Symposium 2012*, Doha, Qatar, October 22, 2012.
188. **Omary, M. A.** "Metal-Organic Materials Made Smart for a Spectrum of Energy-Saving/Harvesting/Storage and Biomedical Applications", *Joint Qatar Foundation Annual Research Forum and Arab Expatriate Scientists Network Symposium 2012*, Doha, Qatar, October 21, 2012.
187. **Omary, M. A.**; Yang, C.; Kaipa, U.; Arvapally, R. "Ground-breaking fluororous MOFs for oil spill treatment and carbon capture/storage", *244th ACS National Meeting*, Philadelphia, PA, August 19-23, 2012, ENFL-668.
186. McDougald, R. N., Jr.; El-Bjeirami, O.; Nesterov, V.; **Omary, M. A.** "Structural and photophysical properties of cyclic trinuclear closed shell d^{10} coinage metal complexes and their metal cation- π adducts", *244th ACS National Meeting*, Philadelphia, PA, August 19-23, 2012, INOR-755.
185. McDougald, R. N., Jr.; Ricci, S.; Nesterov, V.; Galassi, R.; Burini, A.; **Omary, M. A.** "Photophysical properties of imidazolate based cyclic trinuclear Au(I) complexes and their metal cation adducts", *244th ACS National Meeting*, Philadelphia, PA, August 19-23, 2012, INOR-355.
184. **Omary, M. A.** "From interesting complexes to optoelectronic devices: A decade worth of investigations post-Fackler mentorship", *244th ACS National Meeting*, Philadelphia, PA, August 19-23, 2012, INOR-372.
183. Upadhyay, P.; Marpu, S.; Yang, C.; Salazar, G. A.; Hu, Z.; **Omary, M. A.** "Environmental sensitive Au(I) pyrazole phosphorescent systems synthesized at polymer-gel interface for electronic and biological applications", *244th ACS National Meeting*, Philadelphia, PA, August 19-23, 2012, INOR-222.
182. **Omary, M. A.** "Metal-Organic Materials Made Smart for a Spectrum of Energy-Saving and Biomedical Applications", *Chemical and Biological Defense Science and Technology (CBD S&T) Conference – U. S. Department of Defense*, Las Vegas, Nevada, November 14-18, 2011.
181. Marpu, S.; **Omary, M. A.** "In Situ Syntheses of Silver Nanoparticles Loaded Nanofibers as Novel Multifunctional Nnanomaterials", *Chemical and Biological Defense Science and Technology (CBD S&T) Conference – U. S. Department of Defense*, Las Vegas, Nevada, November 14-18, 2011.
180. Upadhyay, P.; Marpu, S. B.; Satumtira, S.; Salazar, G. A.; Yang, C.; Hu, Z.; **Omary, M. A.** "In Situ Formation and Stabilization of Pt(II) and Au(I) Phosphorescent Molecular Systems within Stimulus Responsive and Biologically Benign Polymers for Biological and Sensor Applications", *67th Southwest Regional ACS Meeting*, Austin, Texas, November 9-12, 2011, GEN-534.
179. Oswald, I. W. H.; Arvapally, R.; Halbert, J. P.; **Omary, M. A.** "Synthesis, characterization and color tuning of highly phosphorescent platinum(II) complexes utilizing pyridyazolate chelates", *67th Southwest Regional ACS Meeting*, Austin, Texas, November 9-12, 2011, GEN-544.
178. Salazar, G. A.; Yang, C.; **Omary, M. A.** "Remarkable photophysical properties of rhenium(I) complexes with new chromophoric ligands prepared by microwave-assisted synthesis", *67th Southwest Regional ACS Meeting*, Austin, Texas, November 9-12, 2011, GEN-535.

177. McDougald, R. N., Jr.; El-Bjeirami, O.; **Omary, M. A.** "Phosphorescent gold rings and "sandwich" adducts", *67th Southwest Regional ACS Meeting*, Austin, Texas, November 9-12, 2011, GEN-534.
176. Satumtira, N. T.; Pan, F.; Hunt von Herbing, I.; **Omary, M. A.** "Unique *in vivo* imaging of aquatic and marine organisms using an aqueous phosphor", *67th Southwest Regional ACS Meeting*, Austin, Texas, November 9-12, 2011, GEN-533.
175. Halbert, J. P.; McDougald, R. N., Jr.; Chilukuri, B.; Li, Y.; Cundari, T. R.; Du, J.; **Omary, M. A.** "Hexabromotriphenylene: A new organic n-type semiconductor", *67th Southwest Regional ACS Meeting*, Austin, Texas, November 9-12, 2011, GEN-365.
174. Chilukuri, B.; Cundari, T. R.; **Omary, M. A.** "Computational study of d10 trinuclear cyclic complexes for metal-organic electronics applications", *242nd ACS National Meeting*, Denver, CO, August 28-September 1, 2011, INOR-532.
173. El-Bjeirami, O.; Chehbouni, M.; Satumtira, N. T.; **Omary, M. A.** "Innovative method for heavy metal ions detection using highly luminescent phosphorescent di-platinum (II) octaphosphite complex", *242nd ACS National Meeting*, Denver, CO, August 28-September 1, 2011, INOR-142.
172. Slaughter, L. M.; Sluch, I. M.; Miranda, A. J.; Elbjeirami, O.; **Omary, M. A.** "Influence of metallophilic interactions and pi-pi stacking on the structures and luminescent properties of $M(\text{CNAr})_2\text{Cl}_2$ [$M=\text{Pt}, \text{Pd}$]", *241st ACS National Meeting*, Anaheim, CA, March 27-31, 2011, INOR-1125.
171. **Omary, M. A.** "Balch-influenced chemistry, photophysics, and molecular electronics of gold(I) complexes", *241st ACS National Meeting*, Anaheim, CA, March 27-31, 2011, INOR-404. **(INVITED; F. Albert Cotton Award in Synthetic Inorganic Chemistry: Symposium in Honor of Alan L. Balch.)**
170. Chehbouni, M.; Satumtira, N. T.; El-Bjeirami, O.; **Omary, M. A.** "Diplatinum (II) octaphosphite complex: An investigation into its applications and reactions with heavy metals", *241st ACS National Meeting*, Anaheim, CA, March 27-31, 2011, INOR-750.
169. Satumtira, N. T.; Kinyanjui, S.; Pan, F.; Hajeri, V.; Hunt von Herbing, I.; Padilla, P. A.; **Omary, M. A.** "*In vivo* imaging of an oxygen sensitive phosphor, potassium dihydrotetrakis(pyrophosphito) platinum(II)", *CPRIT Innovations in Cancer Prevention and Research Conference*, Austin, Texas, November 15-18, 2010.
168. Marpu, S.; Krishnan, U. R.; Pudur, J.; Petros, R. A.; Hu, Z.; **Omary, M. A.** "A new class of toxin-free gold nanoparticles for cancer diagnosis and photothermal therapy treatment", *Department of Defense Congressionally Directed Medical Research Program (CDMRP)/Telemedicine & Advanced Technology Research Center (TATRC) Symposium* Denton, Texas, October 20, 2010.
167. Satumtira, N. T.; Mahdi, A.; Chehbouni, M.; Elbjeirami, O.; **Omary, M. A.** "Novel Method for Waste Analysis Using a Highly Luminescent Diplatinum (II) Octaphosphite Complex as a Heavy Metal Detector", *Clean Energy: Fuel Cells, Batteries, Renewables; Green Technologies for Materials Manufacturing and Processing II; and Materials Solutions for the Nuclear Renaissance Symposia, 2010 Materials Science and Technology (MS&T'10) Meeting*, October 17-21, 2010, Houston, Texas.
166. Satumtira, N. T.; Kinyanjui, S.; Pan, F.; Hajeri, V.; Hunt von Herbing, I.; Padilla, P. A.; **Omary, M. A.** "Multi Functional Nanostructures for Integrated Cancer Imaging and Therapy", *Department of Defense Congressionally Directed Medical Research Program (CDMRP)/Telemedicine & Advanced Technology Research Center (TATRC) Symposium* Denton, Texas, October 20, 2010.

165. **Omary, M. A.** "Fluorous Metal Organic Frameworks for Volatile Organic Vapor Adsorption and Detection", *Chemical and Biological Defense Science and Technology (CBD S&T) Conference – U. S. Department of Defense*, Orlando, Florida, November 15-18, 2010.
164. Marpu, S.; Kolailat, S.; Charturvedi, R.; Shah, J.; Hu, Z.; Omary, M. A. "Antimicrobial studies of biocompatible colloidal silver nanoparticles with tunable visible to near-infrared plasmonic absorptions", *240th ACS National Meeting*, Boston, MA, August 22-26, 2010, COLL-309.
163. Determan, J. J.; Marpu, S.; Wilson, A. K.; **Omary, M. A.** "Size, shape, and color tunable copper nanoparticles: Photochemical syntheses and growth mechanisms for particles", *240th ACS National Meeting*, Boston, MA, August 22-26, 2010, COLL-309.
162. **Omary, M. A.** "Bright phosphors for white and monochrome OLEDs based on transition metal complexes besides Ir(III) phenylpyridines", *SPIE Photonic Devices and Applications - Organic Light Emitting Materials and Devices XIV Symposium*, San Diego, CA, August 1-5, 2010, Paper 7776-8.
161. Rabaa, H.; McDougald, R. N., Jr.; Chilukuri, B.; Cundari, T. R.; **Omary, M. A.** "Modeling of novel p-type field-effect transistor behavior in trinuclear Au(I) complexes", *239th ACS National Meeting*, San Francisco, CA, March 21-25, 2010, INOR-288.
160. Marpu, S. B.; Hu, Z.; **Omary, M. A.** "Facile photochemical syntheses of bi-metallic Au-Ag nanoparticles", *239th ACS National Meeting*, San Francisco, CA, March 21-25, 2010, INOR-339.
159. Chehbouni, M.; Satumtira, N. T.; El-Bjeirami, O.; **Omary, M. A.** "Heavy metal sensing using a highly luminescent Di-Platinum (II) octaphosphite complex", *239th ACS National Meeting*, San Francisco, CA, March 21-25, 2010, INOR-346.
158. Chilukuri, B.; Cundari, T. R.; **Omary, M. A.**; Gnade, B. "Modeling silver and gold complexes for next generation electronic materials", *239th ACS National Meeting*, San Francisco, CA, March 21-25, 2010, INOR-363.
157. McDougald, R. N., Jr.; Tekarli, S. M.; Cundari, T. R.; **Omary, M. A.** "Trinuclear metal complexes exhibiting metalloaromaticity", *239th ACS National Meeting*, San Francisco, CA, March 21-25, 2010, INOR-856.
156. Shankar, K.; Marpu, S.; Yang, C.; Rawashdeh-Omary, M. A.; **Omary, M. A.** "Photophysical and electrochemical properties of gold(I) complexes for photoinduced multielectron transfer", *239th ACS National Meeting*, San Francisco, CA, March 21-25, 2010, INOR-1087.
155. Tekarli, S. M.; McDougald, R.; **Omary, M. A.**; Cundari, T. R. "Metalloaromaticity and metal-organic field effect transistors (MOFETs): Applications of metallomacrocyclic coinage metal complexes", *239th ACS National Meeting*, San Francisco, CA, March 21-25, 2010, INOR-1299.
154. **Omary, M. A.** "Gold Luminescence: How Fundamental Advances Can Be "Golden" for a World of "Glowing" Applications", *GOLD 2009: 5th International Conference on the Science, Technology and Applications of Gold*, Heidelberg, Germany, July 2009.
153. Rabaã, H.; McDougald, R. N.; Elbjeirami, O.; Cundari, T. R.; **Omary, M. A.** "Photoluminescence and EHTB Modeling of Trinuclear carbeniate Au(I) Complexes", *GOLD 2009: 5th International Conference on the Science, Technology and Applications of Gold*, Heidelberg, Germany, July 2009.
152. **Omary, M. A.**; Yang, C. "Fluorous metal-organic nanomaterials for energy-saving applications", *238th ACS National Meeting*, Washington, DC, August 16-20, 2009, FLUO-003. (*Invited Speaker.*)
151. Satumtira, N. T.; Marpu, S.; Stewart, A.; Padilla, P.; Neogi, P. B.; Lon, T.; **Omary, M. A.** "Oxygen indication in biological models using a highly luminescent platinum complex:

- ($K_4[Pt_2(P_2O_5H_2)_4].2H_2O$)”, *238th ACS National Meeting*, Washington, DC, August 16-20, 2009, PMSE-242.
150. Salazar, G. A.; Determan, J. J.; Yang, C.; **Omary, M. A.** “Synthesis and photophysics of novel rhenium(II) pyrazolyl-triazine complexes”, *238th ACS National Meeting*, Washington, DC, August 16-20, 2009, INOR-183.
149. Kaipa, U.; Elbjairami, O.; Selby, T.; **Omary, M. A.** “Phosphorescent metallodendrimers and coordination polymers of Au(I) and Pt(II) Polyacetylides”, *238th ACS National Meeting*, Washington, DC, August 16-20, 2009, INOR-496.
148. Determan, J. J.; Wilson, A. K.; **Omary, M. A.** “Photophysics and electronic structure of three-coordinate Cu(I) phosphine complexes: 21st-Century version of Alchemy”, *238th ACS National Meeting*, Washington, DC, August 16-20, 2009, INOR-132.
147. Determan, J. J.; Marpu, S.; Wilson, A. K.; **Omary, M. A.** “Photochemistry of Cu(I) phosphine complexes: Creation through destruction”, *238th ACS National Meeting*, Washington, DC, August 16-20, 2009, INOR-807.
146. Chen, W.-H.; McDougald, R. N.; Yang, C.; Oswald, I. W.; Wang, X.; Nesterov, V.; **Omary, M. A.** “Metal-triazolate phosphors for optoelectronic applications”, *238th ACS National Meeting*, Washington, DC, August 16-20, 2009, INOR-492.
145. Oswald, I. W.; Ayling, S. A.; Franklin, C. D.; Gilbreath, N. R.; Head, J. W.; Johnston, E. M.; Lin, P.-F.; Morgan, L. C.; Peterson III, C. C.; Shows, A. K.; Spiker, S. A.; Tosomboon, M.; Zafreen, L.; Browning, C. L.; **Omary, M. A.** ““Research for the Classroom” BIG PICTURE Projects 2009: Facile syntheses of colloidal nanoparticles stabilized in various polymers and dendrimers upon inorganic synthesis from transition metal complex precursors”, *238th ACS National Meeting*, Washington, DC, August 16-20, 2009, INOR-262.
144. **Omary, M. A.** “Metal-organic photovoltaics and light-emitting diodes based on d^8 complexes”, *237th ACS National Meeting*, Salt Lake City, UT, March 22-26, 2009, INOR-381.
143. Elbjairami, O.; McDougald, R.; **Omary, M. A.** “White, tunable photoluminescence and unidirectional semiconducting behavior of trinuclear Au(I) complexes and adducts thereof with heavy-metal cations”, *237th ACS National Meeting*, Salt Lake City, UT, March 22-26, 2009, INOR-53.
142. Yang, C.; **Omary, M. A.** “Fluorous metal organic frameworks”, *237th ACS National Meeting*, Salt Lake City, UT, March 22-26, 2009, FUEL-73.
141. Marpu, S.; John, S.; Hu, Z.; Neogi, A.; **Omary, M. A.** “Enhancement of Direct Band-Gap Emission of ZnO in Biocompatible Hydrogels”, *64th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, October 1-4, 2008, SWRM-417.
140. Bruner, B. C.; Seifert, Z. J.; Nichols, A. L.; Chen, W.-C.; **Omary, M. A.**; Smucker, B. W. “Synthesis and Characterization of Bis-Platinum(II) Complexes Bridged by 4',4'''-(1,4-phenylene)Bis(2,2':6',2''-terpyridine)”, *64th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, October 1-4, 2008, SWRM -246.
139. Smith, C.; Marpu, S.; Elbjairami, O.; Diercks, D.; **Omary, M. A.** “A One-Pot Photochemical Synthetic Route Size Tunable Silver Nanoparticles in Biocompatible Media”, *64th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, October 1-4, 2008, SWRM -231.
138. McDougald, R. N., Jr.; Abuzaid, F.; Elbjairami, O.; **Omary, M. A.** “White and Tunable Photoluminescence from Trinuclear Au(I) Complexes and Their Adducts with Metal Cations”, *64th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, October 1-4, 2008, SWRM-203.

137. Jenkins, D.; Cundari, T. R.; **Omary, M. A.** "Photoinduced Multi-Electron Transfer in Au(PR₃)₃⁺ Systems", *64th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, October 1-4, 2008, SWRM -125.
136. Yang, C.; **Omary, M. A.** "Stacked P/N Junction Molecules for Optoelectronics", *64th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, October 1-4, 2008, SWRM-124.
135. Determan, J.; **Omary, M. A.** "Luminescence Rigidochromism of Three-Coordinate Cu(I) Phosphine Complexes", *64th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, October 1-4, 2008, SWRM -123.
134. Salazar, G. A.; Yang, C.; **Omary, M. A.** "Synthesis and Luminescence Studies of New Classes of Europium and Rhenium Complexes", *64th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, October 1-4, 2008, GEN-122; GEN-130.
133. Yang, C.; **Omary, M. A.** "Breathable Fluorous Metal Organic Frameworks", *64th Southwest Regional Meeting of the American Chemical Society*, Little Rock, AR, October 1-4, 2008, GEN-73.
132. Satumtira, N. T.; Hu, Z.; **Omary, M. A.** "Luminescent platinum complexes in biopolymers and hydrogels", *236th ACS National Meeting*, Philadelphia, PA, August 17-21, 2008, PMSE-308.
131. Sinha, P.; **Omary, M. A.** "Luminescence rigidochromism in cationic three-coordinate Au(I)-phosphine complexes", *236th ACS National Meeting*, Philadelphia, PA, August 17-21, 2008, INOR-802.
130. **Omary, M. A.**; Yang, C. "Metal-organic nanomaterials for gas storage, gigantic thermal expansion, and electronic devices", *236th ACS National Meeting*, Philadelphia, PA, August 17-21, 2008, INOR-717.
129. Arvapally, R. K.; Lin, M.-T.; Sinha, P.; Shepherd, N. D.; **Omary, M. A.** "Photophysical and electroluminescence studies of complexes of Nd, Tb, Eu, and Er trivalent lanthanide ions with 4'(4-methylphenyl)-2,2':6',2" terpyridine", *236th ACS National Meeting*, Philadelphia, PA, August 17-21, 2008, INOR-515.
128. Browning, C. L.; Melton, D. D.; Wallace, N. M.; Kadiwar, G. K.; McGarrah, Z. P.; Clemmer, L.; Garcia, M. A.; Dudley, K. A.; **Omary, M. A.** "'Research for the Classroom" BIG PICTURE Projects 2008: Metal-organic complexes for electronic devices", *236th ACS National Meeting*, Philadelphia, PA, August 17-21, 2008, INOR-496.
127. Chen, W.-H.; Li, M.; Yang, C.; Wang, X.; Shepherd, N. D.; **Omary, M. A.** "Platinum(II)-triazolate phosphors for optoelectronic applications", *236th ACS National Meeting*, Philadelphia, PA, August 17-21, 2008, INOR-181.
126. Arvapally, R. K.; Lu, H.; **Omary, M. A.**; Patterson, H. H. "Optical memory studies of bis(thiocyanato)aurate(I) complexes", *236th ACS National Meeting*, Philadelphia, PA, August 17-21, 2008, INOR-178.
125. **Omary, M. A.**; Cundari, T. R.; Gnade, B. E. "'Metallo-organometallics": Fundamentals in metalloaromaticity and applications in electronic devices", *236th ACS National Meeting*, Philadelphia, PA, August 17-21, 2008, INOR-119.
124. Browning, C. L.; **Omary, M. A.** "Platinum(II) complexes for organic photovoltaics", *236th ACS National Meeting*, Philadelphia, PA, August 17-21, 2008, INOR-77.
123. Seifert, Z. J.; Nichols, A. L.; Chen, W.-H.; **Omary, M. A.**; Smucker, B. W. "Synthesis and Characterization of (μ-(4',4''-(1,4-Phenylene)Bis(2,2':6',2"-terpyridine)))Bis(acetonitrileplatinum(II)) Tetrafluoroborate", *63rd Southwest Regional Meeting*

of the American Chemical Society, Lubbock, TX, United States, November 4-7, 2007, GEN-226.

122. Marpu, S.; Hu, Z.; **Omary, M. A.** "Phosphorescent, surfactant-free chitosan nanoparticles", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, PMSE-361; *PMSE Preprints 2007*, 97, 638.
121. Determan, J.; Sinha, P.; **Omary, M. A.**; Wilson, A. K. "Excited state chemical bonding and spectroscopy of inert metals and noble gases", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, PHYS-201.
120. Marpu, S.; Yang, C.; Hu, Z.; **Omary, M. A.** "Phosphorescent heavy metal ion sensors based on water-soluble, biodegradable Chitosan polymer hydrogels", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, INOR-567.
119. **Omary, M. A.**; Elbjeirami, O.; McDougald, R.; Getto, J.; Lee, T. H.; Park, S. Y.; Kim, M. J. "Stable gold nanoparticles by photolysis of simple gold(I) complexes", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, INOR-366.
118. Lu, H.; Hurley, S.; Li, X.; Rawashdeh-Omary, M. A.; Patterson, H. H.; **Omary, M. A.** "Temperature-dependent optical memory for dicyano Ag(I) complexes", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, INOR-321.
117. McDougald, R.; Destefani, K.; Deyoung, S.; Eastlund, M.; Thompson, K.; Taylor, L.; Whitten, J.; Browning, C.; Hudson, J. M.; **Omary, M. A.** "'Research for the Classroom BIG PICTURE Project": Photoinduced Jahn-Teller distortions in 4-coordinate Ag(I) complexes", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, INOR-320.
116. McDougald, R.; Kerr, K.; Martine, B.; DeLeon, V.; Determan, J.; **Omary, M. A.** "'Research for the Classroom BIG PICTURE Project": New copper clusters that exhibit luminescence thermochromism", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, INOR-319.
115. Marpu, S.; Elbjeirami, O.; Park, S. Y.; Hu, Z.; Kim, M. J.; **Omary, M. A.** "Gold and silver nanoparticles stabilized in polymer hydrogels", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, INOR-263.
114. Chen, W. -H.; Hudson, J. M.; Katz, J.; Lewis, N. S.; **Omary, M. A.** "Dye-sensitized solar cells based on square-planar d^8 donor complexes without and with organic acceptors", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, INOR-161.
113. Martinez, H.; Phan, K.; Kwon, H. -Won; Lucente-Schultz, R.; Hatcher, J.; Chen, W. -H.; Hudson, J. M.; **Omary, M. A.** "'Research for the Classroom BIG PICTURE Project": Tuning the charge transfer absorption bands of common ruthenium solar cell dyes by selected S-donor co-ligands", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, INOR-155.
112. **Omary, M. A.** "Polynuclear coinage metal complexes: One class of molecular materials with numerous fundamental advances and multifaceted applications", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, INOR-095.
111. **Omary, M. A.**; Wang, X. "Macrocyclic isolobal analogy", *234th ACS National Meeting*, Boston, MA, August 19-23, 2007, INOR-016.
110. **Omary, M. A.** "Phosphorescent OLEDs and PLEDs Based on d^{10} Molecular Materials", *"Illuminating Molecules" Symposium, 39th Central Regional American Chemical Society Meeting*, Covington, Kentucky, May 20-23, 2007, CRM-491.
109. Smucker, B. W.; Batrice, R. J.; Chen, W. -H.; Menke, J. L.; **Omary, M. A.** "Tuning the electronic energies of novel μ -benzenedithiol-bis(trimineplatinum(II)) complexes", *233rd ACS National Meeting*, Chicago, Illinois, March 25-29, 2007, INOR-715.

108. **Omary, M. A.** "Polyimine d^8 donor complexes and adducts with organic acceptors for optoelectronic applications", *Symposium on Chemical Utilization of Solar Energy, 62nd Southwest Regional Meeting of the American Chemical Society*, Houston Westchase Marriott Hotel, Houston, Texas, October 20-21, 2006, SRM-732.
107. Batrice, R. J.; Menke, J. L.; Chen, W. -H.; **Omary, M. A.**; Smucker, B. W. "Syntheses and characterization of novel μ -benzenedithiol bis(triimineplatinum(II)) complexes", *62nd Southwest Regional Meeting of the American Chemical Society*, Houston Westchase Marriott Hotel, Houston, Texas, October 20-21, 2006, SRM-301.
106. **Omary, M. A.** "Fast phosphors of coinage metal complexes: From small molecules to soft materials" *232nd ACS National Meeting*, San Francisco, California, September 10-14, 2006, INOR-933.
105. Yang, C.; **Omary, M. A.** "Trinuclear d^{10} metallomacrocycles of triazolates: A new class of fast phosphors and sensors" *232nd ACS National Meeting*, San Francisco, California, September 10-14, 2006, INOR-930.
104. Sinha, P.; Kosuri, D.; Shepherd, N. D.; Wilson, A. K.; **Omary, M. A.** "Photophysics of three-coordinate Au(I) complexes: Fundamentals and applications in molecular light-emitting diodes" *232nd ACS National Meeting*, San Francisco, California, September 10-14, 2006, INOR-927.
103. Tekarli, S. M.; Cundari, T. R.; **Omary, M. A.** "A rational design of metallomacrocyclic complexes with superior π acidity and basicity vs. organic counterparts: Inorganic rules!" *232nd ACS National Meeting*, San Francisco, California, September 10-14, 2006, INOR-645.
102. Marpu, S.; Cai, T.; Sinha, P.; Hu, Z.; **Omary, M. A.** "Phosphorescent hydrogels" *232nd ACS National Meeting*, San Francisco, California, September 10-14, 2006, INOR-309.
101. Elbjairami, O.; **Omary, M. A.** "Photophysics and photochemistry of neutral isonitrile and carbonyl gold(I) complexes" *232nd ACS National Meeting*, San Francisco, California, September 10-14, 2006, INOR-064.
100. Burrell, C.; **Omary, M. A.**; Elbjairami, O.; Gabbai, F. P. "Cooperativity and heavy-atom effects in phosphorescent supramolecular materials containing $[o-C_6F_4Hg]_3$ " *232nd ACS National Meeting*, San Francisco, California, September 10-14, 2006, INOR-029.
99. **Omary, M. A.** "Bright, Tunable Coinage Metal Phosphors", *17th Inter-American Photochemical Society Meeting*, Salvador, Bahia, Brazil, June 12, 2006. **AWARD TALK (2006 I-APS Young Investigator Award)**
98. Yockel, S.; Elbjairami, O.; Wilson, A. K.; **Omary, M. A.** "The relationship between structure and luminescence of Au(CO)Cl", *231st ACS National Meeting*, Atlanta, Georgia, March 26-30, 2006, PHYS-451.
97. Burrell, C. N.; Elbjairami, O.; **Omary, M. A.**; Gabbai, F. P. "Five-order of magnitude reduction of the triplet lifetimes of N-heterocycles by complexation to perfluoro-ortho-phenylene mercury", *231st ACS National Meeting*, Atlanta, Georgia, March 26-30, 2006, INOR-042.
96. Grimes, T. V.; Cundari, T. R.; **Omary, M. A.** "Modeling of d^{10} coinage-metal complex excited states", *231st ACS National Meeting*, Atlanta, Georgia, March 26-30, 2006, COMP-261.
95. Jenkins, D. M.; Arvapally, R. K.; Yang, C.; **Omary, M. A.** "Solvent and concentration effects upon the luminescence of [4-(4,6-Dichloro-[1,3,5]triazin-2-yl)-phenyl]-diphenyl-amine", *231st ACS National Meeting*, Atlanta, Georgia, March 26-30, 2006, CHED-944.
94. Jenkins, D. M.; Randle, K.; Wilson, B.; Hudson, J. M.; **Omary, M. A.** "In search of a 3-coordinate silver (I) complex with Ag-centered phosphorescence", *231st ACS National Meeting*, Atlanta, Georgia, March 26-30, 2006, CHED-913.

93. **Omary, M. A.** "Fundamental and Applied Photonic Studies of Phosphorescent Small- and Macro-Molecules", *JSPS-UNT Joint International Symposium on Nanoscale Materials for Optoelectronics and Biotechnology*, University of North Texas, Denton, Texas, February 1-2, 2006.
92. **Omary, M. A.** "Dramatic phosphorescence tuning by multi-faceted strategies", *230th ACS National Meeting*, Washington, D.C., August 28-Sept. 1, 2005, INOR 226.
91. **Omary, M. A.**; Yang, C. "Macromolecular photophysics in lanthanide and closed-shell transition-metal complexes", *230th ACS National Meeting*, Washington, D.C., August 28-Sept. 1, 2005, INOR 541.
90. Patterson, H. H.; Colis, J. C. F.; Richards, C.; **Omary, M. A.** "Optical memory of single crystals of dicyanoargentate(I)", *230th ACS National Meeting*, Washington, D.C., August 28-Sept. 1, 2005, INOR 227.
89. Determan, J.; Yockel, S.; Grimes, T.; **Omary, M. A.**; Bagus, P. S.; Cundari, T. R.; Wilson, A. K. "Transition metal chemistry: Towards accurate energetic description", *230th ACS National Meeting*, Washington, D.C., August 28-Sept. 1, 2005, PHYS 8.
88. **Omary, M. A.** "Custom-making Phosphors for Solid-State Lighting via Photoinduced Jahn-Teller Distortions, Heavy-atom Effect, and Energy Transfer", *International Symposium on Excited State Processes in Electronic and Bio Nanomaterials*, Los Alamos National Laboratory, Santa Fe, New Mexico, August 8-11 2005. **(FEATURED INVITED SPEAKER.)**
87. **Omary, M. A.** "Photonic Processes in Closed-Shell and Lanthanide Complexes in Macromolecules", *16th International Symposium on the Photochemistry and Photophysics of Coordination Compounds*, Pacific Grove, California, July 2-6, 2005. **(FEATURED INVITED SPEAKER.)**
86. Yang, C.; **Omary, M. A.** "Photonic Processes in Closed-Shell and Lanthanide Complexes in Macromolecules", *16th International Symposium on the Photochemistry and Photophysics of Coordination Compounds*, Pacific Grove, California, July 2-6, 2005.
85. **Omary, M. A.**; Elbjeirami, O.; Larkin, S.; Bruce, M. R. M. Bruce, A. E. "Genuine Role of Aurophilic Bonding on Luminescence and Meosgenic Properties of "Simple" Isonitrile Complexes", *9th International Symposium on Metallomesogens*, Lake Arrowhead, California, May 31 to June 3, 2005.
84. Larkin, S.; Bruce, A. E.; Bruce, M. R. M.; Makarov, M. V.; Lemenosvsii, D. A.; Dyadchenko, V. P.; Elbjeirami, O.; **Omary, M. A.** "Structural and Meosgenic Properties of Gold(I) Thiolate and Isocyanide Complexes", *9th International Symposium on Metallomesogens*, Lake Arrowhead, California, May 31 to June 3, 2005.
83. Burress, C. N.; Gabbai, F. P.; Elbjeirami, O.; **Omary, M. A.** "Heavy atom-induced phosphorescence of organic materials using trimeric perfluoro-ortho-triphenylene", *229th ACS National Meeting*, San Diego, California, March 13-17, 2005, INOR-941.
82. Hudson, J. M.; Omary, M. A.; Reinheimer, E. W.; Dunbar, K. R. "Electronic spectroscopy of d^8 (diimine)(dithiolate) complexes and their potential use as solar cell dyes", *229th ACS National Meeting*, San Diego, California, March 13-17, 2005, INOR-836.
81. Elbjeirami, O.; **Omary, M. A.**; Yockel, S.; Wilson, A. K. "Structure-luminescence relationship of neutral LAuX complexes (L=CO or RNC; X=halide)" *229th ACS National Meeting*, San Diego, California, March 13-17, 2005, INOR-730.
80. Guo, Z.; Rawashdeh-Omary, M. A.; **Omary, M. A.**; Patterson, H. H. "Oligomerization, exciplex tuning, and energy transfer in dicyano complexes of Ag(I) and Au(I)" *229th ACS National Meeting*, San Diego, California, March 13-17, 2005, INOR-499.

79. Elbjeirami, O.; Burress, C. N.; Hogue, S. E.; Haneline, M. R.; Gabbai, F. P.; **Omary, M. A.** "Photophysics of arene-decorated poly(propyleneimine) dendrimers and their adducts with metal cations and Lewis acids" *229th ACS National Meeting*, San Diego, California, March 13-17, 2005, INOR-379.
78. Menke, J. L.; Chen, W. H.; Smucker, B. W.; **Omary, M. A.** "Fine- and coarse-tuning of the absorption energies of [Pt(triimine)X]Y complexes", *229th American Chemical Society National Meeting*, San Diego, California, March 13-17, 2005, INOR-130.
77. Haneline, M. R.; Burress, C.; Taylor, T.; Elbjeirami, O.; Tsunoda, M.; **Omary, M. A.**; Gabbai, F. P. "Heavy atom effects in complexes formed by [o-C₆F₄Hg]₃ with unsaturated substrates", *229th ACS National Meeting*, San Diego, California, March 13-17, 2005, INOR-085.
76. Fackler, J. P.; Mohamed, A. A.; Abdou, H. E.; **Omary, M. A.**; Grant, T. A.; Lupez-Lopez-de-Luzuriaga, J. M. "Photophysical properties of gold(I) compounds", *229th ACS National Meeting*, San Diego, California, March 13-17, 2005, INOR-002.
75. **Omary, M. A.** "Tailoring brightly-phosphorescent and strongly-absorbing closed-shell complexes for specific optoelectronic applications", *60th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, September 29-October 4, 2004.
74. Elbjeirami, O.; Yockel, S. M.; Wilson, A. K.; **Omary, M. A.** "Structure-Luminescence Relationship for Neutral LAuX Complexes (L= CO or RNC; X= halide)", *60th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, September 29-October 4, 2004.
73. Hogue, S. E.; Elbjeirami, O.; **Omary, M. A.** "Quantum Yield Comparisons of Luminophores in Molecular and Dendritic Structures", *60th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, September 29-October 4, 2004.
72. Sinha, P.; Wilson, A. K.; **Omary, M. A.**; Bagus, P. S. "Quantum Mechanical Treatment of Hg Excimers and Exciplexes: Discoveries about the Bonding and Spectroscopic Assignment", *60th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, September 29-October 4, 2004.
71. Cundari, T. R.; Barakat, K. A.; **Omary, M. A.** "Modeling the Chemical and Photophysical Properties of Gold Complexes", *60th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, September 29-October 4, 2004.
70. Hudson, J. M.; **Omary, M. A.**; Reinheimer, E. W.; Dunbar, K. R. "Investigation into cheaper and better solar cell dyes", *60th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, September 29-October 4, 2004.
69. Chen, W. H.; Menke, J. L.; Smucker, B. W.; **Omary, M. A.** "Fine- and Coarse-Tuning of the Absorption Energies of [Pt(terpy)X]Y Complexes", *60th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, September 29-October 4, 2004.
68. Prascher, B. P.; Hudson, J. M.; **Omary, M. A.**; Wilson, A. K. "An Investigation into the Electronic Structure of Pt(II)(diimine)(dithiolato) Complexes", *60th Southwest Regional Meeting of the American Chemical Society*, Fort Worth, TX, September 29-October 4, 2004.
67. Wilson, A. K.; Sinha, P.; **Omary, M. A.**; Bagus, P. S. "Transition metal chemistry: A step toward high accuracy description of structural and energetic properties", *228th American Chemical Society National Meeting*, Philadelphia, Pennsylvania, August 22-26, 2004, COMP-029.
66. **Omary, M. A.**; Mohamed, A. A.; Rawashdeh-Omary, M. A.; Fackler, J. P., Jr. "Photophysics of Supramolecular Binary Stacks Consisting of Electron-rich Trinuclear Au(I) Complexes and Organic Electrophiles" *15th International Symposium on the Photochemistry and Photophysics of Coordination Compounds*, July 4-9, 2004, The University of Hong Kong, Hong Kong.

65. **Omary, M. A.**; Sinha, P.; Barakat, K. A.; Wilson, A. K.; Cundari, T. R. "Toward a T-shape and beyond!", *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, INOR 909.
64. Sinha, P.; **Omary, M. A.**; Bagus, P. S.; Wilson, A. K. "A Theoretical Study of the Spectroscopy of Mercury Excimers and Exciplexes", *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, COMP 37.
63. Patterson, H. H.; **Omary, M. A.**; Colis, J. C. F.; Hettiarachchi, S. R. "Tunable luminescence and optical memory in nanoclusters of $\text{Ag}(\text{CN})_2^-$ and $\text{Au}(\text{CN})_2^-$ doped in alkali halide matrices", *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, INOR 975.
62. **Omary, M. A.**; Hudson, J. M.; Reinheimer, E. W.; Dunbar, K. R. "A systematic design of efficient solar cell dyes based on d^8 complexes with imine and thiolate ligands" *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, INOR 379.
61. **Omary, M. A.** "The glamor and the frustration in studies of heavy-metal luminescence", *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, INOR 387.
60. Gonser, M. W. A.; Elbjeirami, O.; Cundari, T. R.; **Omary, M. A.** "Electronic structure of phosphorescent gold(I) isonitrile complexes", *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, COMP 187.
59. **Omary, M. A.**; Hudson, J. M.; Prascher, B. P.; Wilson, A. K. "Reality vs myth in the electronic structure of d^8 imine thiolate complexes", *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, INOR 188.
58. Reinheimer, E. W.; Hudson, J. M.; Dunbar, K. R.; **Omary, M. A.** "Novel supramolecular stacks assembled from inorganic donor complexes and organic acceptor molecules", *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, INOR 192.
57. Rawashdeh-Omary, M. A.; **Omary, M. A.**; Diyabalanage, H. V. K.; Dias, H. V. R. "Glowing copper, silver, and gold rings, diamonds, and chains", *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, INOR 540.
56. **Omary, M. A.**; Haneline, M. R.; Elbjeirami, O.; Kassab, R. M.; Gabbai, F. P. "Phosphorescence sensitization of arenes in molecular, polymeric, and dendritic materials", *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, INOR 25.
55. Barakat, K. A.; **Omary, M. A.**; Cundari, T. R.; Rosenfeld, D. C.; Wolczansk, P. T. "Spin forbidden reactions of heavy transition metals", *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, COMP 38.
54. Franzman, M. A.; Arvapally, R. K.; **Omary, M. A.** "Photophysics of cation-pi interactions", *227th American Chemical Society National Meeting*, Anaheim, California, March 28-April 1, 2004, CHED 426.
53. Dunbar, K. R.; Schelter, E. J.; Palii, A. V.; Ostrovsky, S. M.; Mirovitskii, V. Y.; Hudson, J. M.; **Omary, M. A.**; Klokishner, S. I.; Tsukerblat, B. S. "Unusual Magnetism of Mixed-Ligand $\text{Re}(\text{II})$ Complexes: jj -Crystal Field Coupling Scheme, Jahn-Teller Effect", *69th Annual Meeting of the Israel Chemical Society*, Tel Aviv, Israel, February 2-3, 2004.
52. **Omary, M. A.** "Luster of luminescence in coinage metal complexes", *59th American Chemical Society Southwest Regional Meeting*, Oklahoma City, Oklahoma, October, 2003.
51. **Omary, M. A.**; Hudson, J. M.; Reinheimer, E. W.; Dunbar, K. R. "Systematic design of efficient solar cell dyes based on supramolecular stacks of binary inorganic/organic donor/acceptor

- sandwich adducts”, *59th American Chemical Society Southwest Regional Meeting*, Oklahoma City, Oklahoma, October, 2003.
50. Gonser, M. W. A.; **Omary, M. A.**; Cundari, T. R. “Computational studies of the luminescent triplet states of gold(I) isonitrile complexes”, *59th American Chemical Society Southwest Regional Meeting*, Oklahoma City, Oklahoma, October, 2003.
 49. Arvapally, R. K.; Franzman, M. A.; **Omary, M. A.** “Electronic structure of silver(I) and thallium(I) adducts of luminescent aromatic hydrocarbons”, *59th American Chemical Society Southwest Regional Meeting*, Oklahoma City, Oklahoma, October, 2003.
 48. Rawashdeh-Omary, M. A.; Diyabalanage, H. V. K.; Dias, H. V. R.; **Omary, M. A.** “Multinuclear pyrazolate complexes of Cu(I), Ag(I), and Au(I) with tunable phosphorescence”, *59th American Chemical Society Southwest Regional Meeting*, Oklahoma City, Oklahoma, October, 2003.
 47. Sinha, P.; **Omary, M. A.**; Bagus, P. S.; Wilson, A. K. “Theoretical calculations for mercury excimers and exciplexes”, *59th American Chemical Society Southwest Regional Meeting*, Oklahoma City, Oklahoma, October, 2003.
 46. **Omary, M. A.**; Rawashdeh-Omary, M. A.; Dias, H. V. R.; Diyabalanage, H. V. K. “Phosphorescent trinuclear, dinuclear, and mononuclear complexes of Cu(I), Ag(I), and Au(I) with fluorinated pyrazolate ligands” *226th ACS National Meeting*, New York, NY, September, 2003, INOR-637.
 45. **Omary, M. A.** “Structure-luminescence relationship in luminescent Au(I) compounds” *226th ACS National Meeting*, New York, NY, September, 2003, INOR-633.
 44. Patterson, H. H.; Hettiarachchi, S. R.; Colis, J. C. F.; **Omary, M. A.** ““Write/Read/Erase” with laser irradiation of dicyanoargentate(I) doped and pure crystals” *226th ACS National Meeting*, New York, NY, September, 2003, INOR-631.
 43. **Omary, M. A.**; Larkin, S. A.; Elbjeirami, O.; Bruce, A. E.; Bruce, M. R. M. “Unusual luminescence and liquid crystalline properties of CyNCAuCl” *226th ACS National Meeting*, New York, NY, September, 2003, INOR-454.
 42. Barakat, K. A.; Cundari, T. R.; **Omary, M. A.** “Trigonal to T-Shaped Jahn-Teller distortion upon photoexcitation of luminescent 3-coordinate Au(I) complexes”, *226th ACS National Meeting*, New York, NY, September, 2003, INOR-208.
 41. **Omary, M. A.** “Coinage Metal Complexes with Bright, Tunable Phosphorescence”, *2003 Gordon Research Conference – Inorganic Chemistry*, New Port, Rhode Island, July, 2003.
 40. **Omary, M. A.**; Hudson, J. M.; Smucker, B. W.; Dunbar, K. R. “Pt(II) and Pd(II) Imine Complexes and Their Adducts with Nitrile Acceptors: Optoelectronic Properties and Potential Use as Solar Cell Dyes”, *225th American Chemical Society National Meeting*, New Orleans, Louisiana, March, 2003, INOR-860.
 39. Hudson, J. M.; Dowling, S. M.; Hines, K. D.; **Omary, M. A.** “Photophysical properties of square planar platinum(II) thiocyanate complexes”, *225th American Chemical Society National Meeting*, New Orleans, Louisiana, March, 2003, INOR-859.
 38. Haneline, M. R.; Gabbai, F. P.; Kassab, R. M.; **Omary, M. A.** “Luminescent Gold Rings and Their Supramolecular π Stacks with Organic Molecules”, *225th American Chemical Society National Meeting*, New Orleans, Louisiana, March, 2003, INOR-807.
 37. **Omary, M. A.** “Phosphorescent Trinuclear Ring Complexes of d^{10} Transition Metals”, *225th American Chemical Society National Meeting*, New Orleans, Louisiana, March, 2003, INOR-803.

36. Elbjeirami, O.; White-Morris, R. L.; Rawashdeh-Omary, M. A.; Doyal, M. F.; Balch, A. L.; **Omary, M. A.** "Luminescent neutral isonitrile gold(I) complexes", *225th American Chemical Society National Meeting*, New Orleans, Louisiana, March, 2003, INOR-802.
35. Arvapally, R. K.; Coker, N. L.; Hettiarachchi, S. R.; Elder, R. C.; Patterson, H. H.; **Omary, M. A.** "Temperature-dependent and Time-resolved Luminescence Studies of Bis(thiocyanato)gold(I) Complexes", *225th American Chemical Society National Meeting*, New Orleans, Louisiana, March, 2003, INOR-570.
34. Rawashdeh-Omary, M. A.; **Omary, M. A.**; Diyabalanage, H. V. K.; Dias, H. V. R. "New Classes of Luminescent Dinuclear and Trinuclear Clusters of Cu(I) and Ag(I) with Fluorinated Pyrazolate Ligands", *225th American Chemical Society National Meeting*, New Orleans, Louisiana, March, 2003, INOR-569.
33. Mohamed, A. A.; Fackler, J. P., Jr., Rawashdeh-Omary, M. A.; **Omary, M. A.** "Luminescent Gold Rings and Their Supramolecular π Stacks with Organic Molecules", *225th American Chemical Society National Meeting*, New Orleans, Louisiana, March, 2003, INOR-568.
32. Hudson, J. M.; Hines, K. D.; **Omary, M. A.** "Photophysics of Square Planar Platinum(II) and Palladium(II) Complexes with π -donor Ligands" *58th American Chemical Society Southwest Regional Meeting*, Austin, Texas, November, 2002.
31. El-Bjeirami, O.; Doyal, M. F.; **Omary, M. A.** "Aurochromism: A New Optical Phenomenon in Luminescent Isonitrile Gold(I) Complexes" *58th American Chemical Society Southwest Regional Meeting*, Austin, Texas, November, 2002.
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