RESEARCH PRESENTATIONS
Marina A. Petrukhina

Invited Oral Presentations:

1. "Photochemical Reactions of Lanthanide Atoms in Argon, Carbon Monoxide and Dinitrogen Matrices". Gordon Research Conference on Chemistry and Physics of Matrix Isolated Species, Helsinki, Finland, July **1993**.

2. "Low Temperature Synthesis of Polymer Films with Encapsulated Metal Nanoparticles". II Int. Conference on Low Temp. Chemistry, Kansas City, MO, Aug. **1996**, p. 71-72.

3. "A Remarkable Family of $Rh_2(O_2CCF_3)_4$-π-Arene Adducts Ranging from Discrete Molecules to 1D and 2D Networks". IUCCP-2000-Industry University Cooperative Chemistry Program, Department of Chemistry, Texas A&M University, College Station, TX, Sept. **2000**.

4. "$Rh_2(O_2CCF_3)_4$ Adducts with Polycyclic Aromatic Molecules: Discrete Molecules, 1D Polymers and 2D Networks". Department of Chemistry, Texas A&M University, Inorganic Chemistry Division, College Station, TX, Oct. **2000**.

5. "$Rh_2(O_2CCF_3)_4$: a Powerful Bidentate Lewis Acid in "Solventless" Reactions". Department of Chemistry, University at Albany, State University of New York, Albany, NY, January 25th, **2001**.

6. "$Rh_2(O_2CCF_3)_4$ Adducts with Polycyclic Aromatic Hydrocarbons: Discrete Molecules, 1D Polymers and 2D Networks". Department of Chemistry, Boston College, March 25th, **2002**. Hosted by L. T. Scott.

7. "Discrete and Extended Assemblies Based on Polynuclear Transition Metal Complexes and Polydentate N-Donor Ligands." M. A. Petrukhina, F. A. Cotton, E. V. Dikarev, P. J. Stang, S. R. Seidel. 223^{d} National Meeting of the ACS, Orlando, FL, April **2002**, paper INOR-220.

8. "Supramolecular Design: Assembling from Vapor Phase versus Solutions". Department of Chemistry, Union College, Schenectady, NY, April 26th, **2002.** Hosted by M. Carol and M. Hagerman.

9. "Supramolecular Organometallic Assembling from Polycyclic Aromatic Hydrocarbons and Dinuclear Metal Complexes". XXth ICOMC (Int. Conf. on Organometallic Chemistry), Corfu-Greece, July 7-12, **2002**.

10. "Solventless Synthesis for Supramolecular Organometallic Assembling". Institut fuer Anorganische Chemie, Mainz, Germany, July 19, **2002**. Hosted by J.Okuda.

11. "Coordination of Polycyclic Aromatic Hydrocarbons by Dinuclear Metal Complexes to Form Discrete Molecules, 1D and 2D Supramolecular Networks". ICCC-35 (Int. Conf. on Coordination Chemistry), Heidelberg, Germany, July 21-26, **2002**.

12. "Supramolecular Organometallic Assembling from Vapor Phase versus Solutions". Department of Chemistry, Rensselaer Polytechnic Institute, Troy, NY, February 11th, **2003**. Hosted by A. Cutler.

13. "Coordination Chemistry of Small Organoselenium Molecules". M.A. Petrukhina, E. Block, E. V. Dikarev, X. Li, Z. Shan, S.-Z. Zhang, K. Andreini, C. Henck, R. Earl. 225th National Meeting of the ACS, New Orleans, LA, March 23-27, **2003**, paper INOR-332.

14. "Solvent-Free Strategy: from Supramolecular Assembling to Entrapment of Reaction Intermediates". NSF Inorganic Chemistry Workshop, Moran, Wyoming, May 29-June 1, **2003**.

15. "Buckybowls as Multidentate Ligands for Metal Coordination". Inorganic Chemistry Gordon Research Conference, Newport, RI, July 16, **2003**.

16. "Carbon-rich Buckybowls as Multidentate Ligands for Metal Coordination". 226th National Meeting of the ACS, New York, NY, September 7, **2003**, paper INOR-50.

17. "Buckybowls as Multidentate Ligands for Metal Coordination". Department of Chemistry, University of Massachusetts, Amherst, MA, December 11, **2003**. Hosted by D. Ventkataraman.

18. "Playing with Buckybowls". Department of Chemical Sciences, Bridgewater State College, Bridgewater, MA, April 8, **2004**. Hosted by. S. Haefner.

19. "Playing with Buckybowls". Department of Chemistry, St. John's University, Jamaica, NY, April 29, **2004**.

20. "Coordination Chemistry of Buckybowls: from Corannulene to Hemifullerene". Department de Quimica Inorganica, Universitat de Valencia, Valencia, Spain, June 7, **2004**. Hosted by S.-E. Stiriba and E. Coronado.

21. "Coordination Chemistry of Buckybowls: from Corannulene to Hemifullerene". Department de Quimica Inorganica, Universidad Complutense de Madrid, Madrid, Spain, June 8, **2004**. Hosted by S. Herrero.

22. "Coordination Chemistry of Buckybowls: from Corannulene to Hemifullerene**".** Université Bordeaux I, Centre de Recherche Paul Pascal, Bordeaux, France, June 15, **2004**. Hosted by R. Clerac.

23. "Coordination Chemistry of Buckybowls: from Corannulene to Hemifullerene**".** Université Bordeaux I, LCOO, Bordeaux, France, June 17, **2004**. Hosted by D. Astruc.

24. "Coordination Chemistry of Buckybowls: from Corannulene to Hemifullerene". M. A. Petrukhina, K. Andreini, Y. Sevryugina, J. Mack, L. Peng, V. Tsefrikas, L. T. Scott. ICCC-36, O 5.59, Merida, Mexico, July 18-23, **2004**.

25. "Novel Approach Toward Organometallic Complexes for Future Applications in Materials Chemistry, Reagent Storage and Transport", WCC Symposium, "Glimpsing the Future: New Science from Our Region", 32nd Northeast Regional Meeting of the ACS (NERM-2004), Rochester, NY, Oct 31 - Nov 3 **2004**, GEN-343.

26. "Novel Approach Toward Organometallic Complexes of Buckybowls". Buffalo State College, Buffalo, NY, December 2, **2004**. Hosted by A. Nazarenko and W. S. Durfee.

27. "Novel Approach Toward Organometallic Complexes of Buckybowls". University at Buffalo, SUNY, Buffalo, NY, December 3, **2004**. Hosted by P. Coppens.

28. "Metal Binding of Fullerene Fragments". Syracuse University, Department of Chemistry, Syracuse, NY, April 12, **2005**. Hosted by J. Zubieta and K. Ruhlandt.

29. "Solventless Organometallic Synthesis: Advances and Applications". Pacifichem Congress, Honolulu, Hawaii, Dec 15, **2005**.

30. "Open Geodesic Polyarenes: a Controlled Switch of Metal Coordination". The 8th Boston Regional Inorganic Chemistry Meeting, MIT, Jan 21st, **2006**. Hosted by J. Sadighi.

31. "Tuning the Reactivity and Coordination Limits of Open Geodesic Polyarenes." Department of Chemistry and Chemical Biology, Rutgers University, March 21, **2006**. Hosted by Jing Li.

32. "Exploring the Reactivity of Dinuclear and Polynuclear Metal Complexes in Gas Phase Reactions". 231st National Meeting of the ACS, Atlanta, GA, March 26, **2006.**

33. "Playing with Buckybowls". Department of Chemistry, Connecticut College, April 11, **2006**. Hosted by Stanton Ching.

34. "Tuning the Reactivity and Coordination Limits of Open Geodesic Polyarenes", Department of Applied Chemistry, Tokyo University of A & T, May 23, **2006**. Hosted by S. Komiya.

35. "Tuning the Reactivity and Coordination Limits of Open Geodesic Polyarenes", Department of Applied Chemistry, Graduate School of Engineering, The University of Tokyo, May 24, **2006**. Hosted by M. Fujita.

36. "Tuning the Reactivity and Coordination Limits of Open Geodesic Polyarenes", Department of Chemistry, Tohoky University, May 27, **2006**. Hosted by H. Miyasaka.

37. "Tuning the Reactivity and Coordination Limits of Open Geodesic Polyarenes", Department of Chemistry, Yokohama City University, May 29, **2006**. Hosted by S. Takamizawa.

38. "Designed Solvent-Free Approach Toward Organometallic Networks". The 37th International Conference on Coordination Chemistry (ICCC-37), Cape Town, South Africa, August 13-18, **2006**. *Keynote speaker*.

39. "Fullerene Fragments: Synthesis, Molecular Geometry, Solid State Packing, and Reactivity". Department of Chemistry and Biochemistry, University of Maryland, Baltimore County, Dec 18, **2006**. Hosted by V. Szalai.

40. "Buckybowls: Synthesis, Molecular Geometry, Solid State Packing and Reactivity". Department of Chemistry, University of Georgia, Athens, Georgia, Feb 12, **2007**. Hosted by G. Robinson.

41. "Buckybowls: Synthesis, Molecular Geometry, Solid State Packing and Reactivity". Inorganic Chemistry Gordon Research Conferences, Newport, RI, July 17, **2007**.

42. "Buckybowls: Synthesis, Molecular Geometry, Solid State Packing and Reactivity". Solid State Chemistry II Gordon Research Conferences, Oxford, UK, September 4, **2007**.

43. "Playing with Buckyballs and Buckybowls". Department of Chemistry, Siena College, NY, February 29, **2008**. Hosted by K. Kitteridge.

44. "Fullerene Fragments: Molecular Geometry, Solid State Packing, and Reactivity". Department of Chemistry & Chemical Biology, Northeastern University, Boston, MA, March 19, **2008**. Hosted by G. Jones.

45. "Coordination Preferences of Bowl-Shaped Polyaromatic Hydrocarbons". 235th ACS National Meeting, New Orleans, LA, April 6-10, **2008**. INOR-470.

46. "Ordered CdSe Quantum Dot-Based Nanocomposites". Workshop "Synthesis, Structure-Determination and Properties of Complex Oxides", University of Antwerp, Belgium, April 25, **2008**. Hosted by G. Van Tendeloo.

47. "Fullerene Fragments: Synthesis, Molecular Geometry, Solid State Packing and Reactivity". Max-Planck Institute for Chemical Physics of Solids, Dresden, Germany, April 28, **2008**. Hosted by Yu. Grin.

48. "Fullerene Fragments: Synthesis, Molecular Geometry, Solid State Packing and Reactivity". Department of Chemistry, The Hebrew University of Jerusalem, Israel, July 23, **2008**. Hosted by R. Shenhar.

49. "Fullerene Fragments: Synthesis, Molecular Geometry, Solid State Packing and Reactivity". Osaka University, Japan, August 26, **2008**. Hosted by T. Hirao.

50. "Fullerene Fragments: Synthesis, Molecular Geometry, Solid State Packing and Reactivity". University of Regensburg, Germany, October 16, **2008**. Hosted by M. Scheer.

51. "Fullerene Fragments: Synthesis, Molecular Geometry, Solid State Packing and Reactivity". University of Hamburg, Germany, October 20, **2008**. Hosted by J. Heck.

Contributed Oral Presentations:

1. "Small Holmium Clusters in Argon Matrices". M. A. Petrukhina, W. E. Klotzbücher. 52nd Southwest Reg. Meeting of ACS, Houston, TX, Oct. 1996.

2. "Phosphine/Phosphide Complexes of Dimetal Cores". E.V. Dikarev, F.A. Cotton, S. Herrero, M.A. Petrukhina, 215th National Meeting of the ACS, Dallas, TX, March **1998**, paper INOR-500A.

3. "Preserving a Cis-Geometry of Monodentate Phosphines in the Dirhenium Complexes". E.V. Dikarev, F.A. Cotton, M.A. Petrukhina 215th National Meeting of the ACS, Dallas, TX, March **1998**, paper INOR-500.

4. "Solventless Synthesis with Dirhodium Tetraacetate". F.A. Cotton, E.V. Dikarev, M.A. Petrukhina. 221st National Meeting of the ACS, San Diego, CA, April **2001**, paper INOR-316.

5. "Novel Structural Modes of Multinuclear Transition Metal Carboxylates with No Exogenous Ligands". F.A. Cotton, R. Clerac, K.R. Dunbar, E.A. Hillard, C.A. Murillo, M.A. Petrukhina, B.W. Smucker, H.-C. Zhou. 221st National Meeting of the ACS, San Diego, CA, April **2001**, paper INOR-032.

6. "Concomitant Coordination of Terminal Oxo Function in Neutral Substrates by Multidentate Lewis Acids." E. V. Dikarev, M. A. Petrukhina. American Crystallographic Association, Annual Meeting, San Antonio, TX, May 26-29, **2002**. Paper 08.03.07, p. 54-55.

7. "Penta-*Tert*-Butyl-Corannulene *vs*. Corannulene: Structure, Disorder, and Reactivity". Y. Sevryugina, E. A. Jackson, L. T. Scott, M. A. Petrukhina. American Crystallographic Association, Annual Meeting, Honolulu, Hawaii, July 23 **2006**. Paper 13.02.04, p. 59.

8. "A New Family of Polynuclear Copper(I) Carboxylates: Synthesis, Structures, Photoluminescence, and Gas-Phase Reactivity". Y. Sevryugina, D. D. Vaughn II, M. A. Petrukhina. The 35th Northeast Regional Meeting of the ACS, Binghamton, NY, Oct 5-7, **2006**, NERM-037.

9. "Nanomaterials Enabled Chemical Sensors: The Detection of Hydrocarbons with a High Degree of Sensitivity and Selectivity". M. Carpenter, M. Petrukhina. The 5th IEEE Conference on Sensors, Daegu, Korea, October 22-25, **2006**, A4L-D-5. IEEE Sensors 2006 Conference Proceedings, p. 444-447.

10. "Semiconductor Quantum Dot/Polymer Thin Film Based Hydrocarbon Sensor: Characterization of Sensing Properties." Z. Zhao, M. Arrandale, O. Vassiltsova, M. A. Petrukhina, M. A. Carpenter. The 6th IEEE Conference on Sensors, Atlanta, GA, USA, October 28-31, **2007**. A4P-E18.

11. "Imposing Strain Energy on Molecular Level: Nonplanar Polyarenes as Templates for Bending Planar Metal Complexes". A. S. Filatov, M. A. Petrukhina. The 236th National Meeting of the ACS, Philadelphia, PA, Aug 17-21, **2008**. INOR-294.

Conference Proceedings

Quantum Dot-Enabled Chemical Sensors: The Detection of Hydrocarbons with a High Degree of Sensitivity and Selectivity. Z. Zhao, M. Arrandale, O. Vassiltsova, M. A. Petrukhina, M. A. Carpenter. *Proc. IMechE. J. Nanoengineering and Nanosystems* **2008**, *221 (N2)*, 73-79.

Poster Presentations:

1. "Properties and Structure of the Macroligand $[UMo_{12}O_{42}]^{8-}$ in Complexation Reactions with d- and f-Elements". M.A. Petrukhina, E.P. Samohvalova, V.N. Molchanov, I.V. Tatyanina, E.A. Torchenkova. Conf. on Chemistry and Technology of Molybdenum and Tungsten, Nal'chik, USSR, Sept. **1988**, p 23.

2. "Interactions of Cations with a Macroligand $[UMo_{12}O_{42}]^{8-}$ in Heteropolycomplexes of Transition Metals". M.A. Petrukhina, E.A. Torchenkova, V.S. Sergienko, V.N. Molchanov, I.V. Tatyanina. V Russian Conf. on Crystallochemistry of Inorganic and Coordination Compounds, Vladivostok, Russia, Sept. **1989**, p. 56.

3. "Cryochemical Formation and Investigation of Lead Colloidal Particles". M.A. Petrukhina, V.V. Zagorsky, G. B. Sergeev. V All-Union Conf. on Low Temperature Chemistry, Moscow, Russia, Dec. **1991**, p. 133.

4. "Interaction of Lead with Solid Poly-p-xylylene Matrices at 80-300 K". M.A. Petrukhina, A.E. Nasonova, V.V. Zagorsky, G.B. Sergeev. XI All-Union Conf. on Kinetics and Mechanisms of Chem. Reactions in the Solid State, Minsk, Belarus, June **1992**.

5. "Chemistry of Small Metal Clusters in the Organic Matrices at Low Temperatures". V.V. Zagorsky, M.A. Petrukhina, G.B. Sergeev. Gordon Research Conference on Chemistry and Physics of Matrix Isolated Species, Helsinki, Finland, July **1993**.

6. "Interaction of p-Xylylene and Poly-p-xylylene with Cluster Particles in Solid State". M.A. Petrukhina, A.E. Nasonova, V.V. Zagorsky, G.B. Sergeev. XI Int. Conf. on the Chemistry of the Organic Solid State, Jerusalem, Israel, July **1993**, p. 138.

7. "Organic Polymers as Matrices for the Stabilization of Silver Colloids Obtained by Cryochemical Techniques". B.M. Sergeev, I.A. Gromchenko, M.A.Petrukhina, G.B. Sergeev. XI Int. Conf. on the Chemistry of the Organic Solid State, Jerusalem, Israel, July **1993**, p. 77.

8. "Polymers Including Nanometer-scale Metal Clusters". G.B. Sergeev, V.V. Zagorsky, B.M. Sergeev, M.A. Petrukhina, I.A. Gromchenko. Ist Int. Material Chemistry Conference, Aberdeen, Scotland, July **1993**, p. 68.

9. "Holmium Atoms and Clusters in Argon Matrices". W.E. Klotzbűcher, M.A. Petrukhina, G.B. Sergeev. I Int. Conf. on Low Temperature Chemistry, Moscow, Russia, Sept. **1994**, p. 100.

10. "Binary Holmium/Silver Clusters in Argon Matrices". W.E. Klotzbűcher, M.A. Petrukhina, G.B. Sergeev. I Int. Conf. on Low Temperature Chemistry, Moscow, Russia, Sept. **1994**, p. 101.

11. "Nanosize Metal Particles in Polymer Films". G.B. Sergeev, V.V. Zagorsky, M.A. Petrukhina. 7th Int. Symp. on Small Particles and Inorg. Clusters, Kobe, Japan, Sept. **1994**, p. 250.

12. "Nano-structures and Self-Assemblies in Polymer Systems". G.B. Sergeev, I.A. Gromchenko, M.A. Petrukhina, B.M. Sergeev, V.V. Zagorsky. Int. Conference on Nano-Structures and Self-Assemblies in Polymer Systems, St.-Petersburg, Russia, May **1995**, OL10.

13. "Polymer Films with Metal Nanoclusters". M.A. Petrukhina, V.V. Zagorsky, G.B. Sergeev. The 7th Int. Conf. on Organized Molecular Films, Numana (Ancona), Italy, Sept. **1995**, p. 2.86.

14. "Nanosize Metal Clusters in Polymer Systems". G.B. Sergeev, I.A. Gromchenko, V.V. Zagorsky, M.A. Petrukhina, B.M. Sergeev. II Int. Conference on High-Tech Chemistry, Tver', Russia, Sept. **1995**.

15. "Synthesis and Physical-chemical Properties of Nanosize Metal Clusters Encapsulated in Polymer Matrices". G.B. Sergeev, I.A. Gromchenko, V.V. Zagorsky, M.A. Petrukhina. NATO Advanced Research Workshop, Szeged, Hungary, March **1996**.

16. "Clusters of Holmium and Silver in Argon Matrices". M.A. Petrukhina, W.E. Klotzbűcher. 8th Int. Symposium on Small Particles and Inorg. Clusters, Copenhagen, Denmark, July **1996**, p. 3.26.

17. "Small Metal Particles in Polymer Matrices". G.B. Sergeev, I.A. Gromchenko, M.A. Petrukhina, V.V. Zagorsky. 8th Int. Symposium on Small Particles and Inorg. Clusters, Copenhagen, Denmark, July **1996**, p. 3.34.

18. "Theoretical Interpretation of Optical Spectra of Holmium Species in Argon Matrices". A.V. Nemukhin, A.Yu. Ermilov, M.A. Petrukhina, W.E. Klotzbűcher. 14th Int. Conference on High Resolution Molecular Spectroscopy, Prague, Czech., Sept. **1996**.

19. "Nanosize Metal Particles in Novel Dielectric Metal-Polymer Materials". G.B. Sergeev, B.M. Sergeev, V.V. Zagorskii, M.A. Petrukhina, A.N. Prusov, Y.J. Lee. 5th Int. Conf. Properties and Applications of Dielectr. Materials. Seoul, May **1997**, Proceedings v2, p. 829-832.

20. "New Techniques for Synthesis of Previously Unknown Dirhenium Complexes". F.A. Cotton, E.V. Dikarev, M.A. Petrukhina. Gordon Research Conference on Inorganic Chemistry, Newport, RI, July **1997**.

21. "Modeling of Optical Spectra of Holmium Species in Low-Temperature Matrices". A.V. Nemukhin, A.Yu. Ermilov, B.L. Grigorenko, M.A. Petrukhina, W.E. Klotzbűcher. 17th Austin Symposium on Molecular Structure, Austin, TX, March **1998**, p. 84.

22. "Reactions of $TiCl_4$ with Phosphines and Alkylating Reagents: an Organometallic Route to a Titanium(II) Cluster Compound". F.A. Cotton, C.A. Murillo, M.A. Petrukhina. Gordon Research Conference on Inorganic Chemistry, Newport, RI, July **1998**.

23. "Dinuclear Titanium Complexes Supported by Calix[4]arene Ligands". F.A. Cotton, C.A. Murillo, M.A. Petrukhina, Gordon Research Conference on Inorganic Chemistry, Newport, RI, July **1999**.

24. "Novel 'Solventless' Strategy for the Synthesis of $Rh_2(O_2CCF_3)_4$-π Arene Adducts: from Discrete Molecules to 2D Networks". M.A. Petrukhina, E.V. Dikarev, F.A. Cotton. Contemporary Inorganic Chemistry-II, College Station, TX, March **2000**.

25. "Mixed Iodide/Phosphine Complexes of the Dirhenium Core Re_2^{n+} (n = 6, 5, and 4)". P.A. Angaridis, M.A. Petrukhina, E.V. Dikarev, F.A. Cotton. Contemporary Inorganic Chemistry-II, College Station, TX, March **2000**.

26. "Solventless Synthesis as a New Approach to Dirhodium Tetracarboxylate Complexes with Axial Ligands". M.A. Petrukhina, E.V. Dikarev, S.-E. Stiriba, F.A. Cotton. Contemporary Inorganic Chemistry-II, College Station, TX, March **2000**.

27. "Powerful Bidentate Lewis Acid as a Trap for Weakly Coordinated Ligands". F.A. Cotton, E.V. Dikarev, M.A. Petrukhina. Gordon Research Conference on Inorganic Chemistry, Newport, RI, July **2001**.

28. "Structural Characterization of Small Organoselenium Molecules". M. A. Petrukhina, E. Block, J. Jin, X. Li, S.-Z. Zhang, E. V. Dikarev. 224th National Meeting of the ACS, Boston, MA, August **2002**, paper INOR-197.

29. "Tailored Nanomaterials: Highly Selective and Sensitive Chemical Sensors for Hydrocarbon Analysis". G. Sirinakis, Z. Zhao, Y. Sevryugina, M. Petrukhina, M. A. Carpenter, A. Tayi. 31st Northeast Regional Meeting of the ACS, Saratoga Springs, NY, June 15-18, **2003**.

30. "Metal Complexes of Buckyballs and Buckybowls". M. A. Petrukhina, K. Andreini. The 31st Northeast Regional Meeting of the ACS, Saratoga Springs, NY, June 15-18, **2003**.

31. "Probing a New Ligand for Linkage Isomerism". C. Henck, M. Petrukhina, E. Block. The 31st Northeast Regional Meeting of the ACS, Saratoga Springs, NY, June 15-18, **2003**.

32. "Buckybowls as Multidentate Ligands for Metal Coordination". M. A. Petrukhina, K. W. Andreini, J. Mack, L. Peng, V. Tsefrikas, L. T. Scott. Inorganic Chemistry Gordon Research Conference, Newport, RI, July 13-18, **2003**.

33. "Open Geodesic Polyarenes as New Ligands for Supramolecular Assembling". M. A. Petrukhina, K.W. Andreini, J. Mack, L. T. Scott. The 39th IUPAC Congress and the 86th Conference of the Canadian Society for Chemistry, Ottawa, Canada, August 10-15, **2003**.

34. "Surface Functionalization of CdSe Quantum Dots for Environmental Sensing". Z. Zhao, G. Sirinakis, Y. Sevryugina, M. Carpenter, M. A. Petrukhina. 226th National Meeting of the ACS, New York, NY, Sept 7-11, **2003**, paper INOR-100.

35. "Recognition of Supramolecular Structures by Powder Diffraction". E. V. Dikarev, M. A. Petrukhina, R. V. Shpanchenko, K. W. Andreini. 226th National Meeting of the ACS, New York, NY, Sept 7-11, **2003**, paper INOR-182.

36. "Concomitant Coordination of Terminal Oxo Function in Various Neutral Substrates by Multidentate Lewis Acids". M. A. Petrukhina, K. W. Andreini, Y. Sevryugina, E. V. Dikarev. 227th National Meeting of the ACS, Anaheim, CA, March 28-April 1, **2004**, paper INOR-600.

37. "Surface Functionalization of Cadmium Selenide Quantum Dots for Environmental Sensing". Z. Zhao, G. Sirinkas,

M. Carpeneter, O. Vassiltsova, Y. Sevryugina, M. A. Petrukhina. AIAA/ASME 2nd Annual Northeast Aerospace/Mechanical Engineering Symposium, Colonie, NY, April 14, **2004**.

38. "Paracyclophanes as Versatile Ligands Directing Formation of Extended Organometallic Networks". M. A. Petrukhina, K. Andreini, Y. Sevryugina. ICCC-36, P 2.005, Merida, Mexico, July 18-23, **2004**.

39. "Thermal Decomposition of Diazo Ligands: Entrapment of Reactive Fragments in Gas Phase and Solution". A. S. Filatov, K. W. Andreini, D. J. Mindiola, M. A. Petrukhina. 228th National Meeting of the ACS, Philadelphia, PA, August 22-26, **2004**, paper INOR-120.

40. "Paracyclophanes as Multidentate Aromatic Ligands for Organometallic Supramolecular Assembling". K. W. Andreini, Y. Sevryugina, M. A. Petrukhina. 228th National Meeting of the ACS, Philadelphia, PA, August 22-26, **2004**, paper INOR-223.

41. "Dispiro Sulfur and Selenium Ligands as Molecular Rigid Rods in Metal Coordination Reactions". C. Henck, E. Block, J. Jin, M. A. Petrukhina. 228th National Meeting of the ACS, Philadelphia, PA, August 22-26, **2004**, paper INOR-467.

42. "New Mixed Ligand Complexes of Ruthenium(I): Gas Phase Transformations and Coordination of Aromatic Substrates". Y. Sevryugina, K. W. Andreini, M. A. Petrukhina. 228th National Meeting of the ACS, Philadelphia, PA, August 22-26, **2004**, paper INOR-602.

43. "Environmental Sensing by Surface Modified CdSe Nanocrystals". Z. Zhao, G. Sirinakis, M. Carpenter, O. Vassiltsova, Y. Sevryugina, M. A. Petrukhina. 228th National Meeting of the ACS, Philadelphia, PA, August 22-26, **2004**, paper PHYS-447.

44. "Environmental Sensing by Surface Modified CdSe Nanocrystals". Z. Zhao, G. Sirinakis, M. Carpenter, O. Vassiltsova, Y. Sevryugina, M. A. Petrukhina. NY-Nanotech 2004, Albany, NY, October 6-8, **2004**.

45. "New Volatile Organometallic Complexes of Ruthenium(I)". Y. Sevryugina, M. A. Petrukhina. NY-Nanotech 2004, Albany, NY, October 6-8, **2004**.

46. "Metal Coordination Reactions of Corannulene and Dibenzo[*a*,*g*]corannulene: A Comparative Study". M. A. Petrukhina, K. W. Andreini, Y. Sevryugina, J. Mack, V. Tsefrikas, L. T. Scott. 229th National Meeting of the ACS, San Diego, CA, March 13-18, **2005**, paper INOR-621.

47. "Complementary Use of Single-Crystal and Powder X-Ray Diffraction for Analysis of Supramolecular Systems". E. V. Dikarev, V. V. Chernyshev, R. V. Shpanchenko, A. S. Filatov, B. Li, M. A. Petrukhina. 229th National Meeting of the ACS, San Diego, CA, March 13-18, **2005**, paper INOR-710.

48. "Exploring the Reactivity of Electrophilic Ruthenium(I) Carbonyl Carboxylates for Catalytic Applications". Y. Sevryugina, B. E. Weaver, J. Thompson, H. M. L. Davies, M. A. Petrukhina. The 33rd Northeast Regional Meeting of the ACS, Fairfield, CT, July 14-17, **2005**.

49. "Metal Complexes of Fullerene Fragments". M. A. Petrukhina, K. W. Andreini, Y. Sevryugina, E. A. Jackson, L. T. Scott. Inorganic Chemistry Gordon Research Conference, Newport, RI, July 17-22, **2005**.

50. "Complementary Use of Single-Crystal and Powder X-Ray Diffraction for Analysis of Supramolecular Systems". E. V. Dikarev, V. V. Chernyshev, R. V. Shpanchenko, A. S. Filatov, B. Li, M. A. Petrukhina. Inorganic Chemistry Gordon Research Conference, Newport, RI, July 17-22, **2005**.

51. "Metal Complexes of Fullerene Fragments". M. A. Petrukhina. XX Congress of the International Union of Crystallography, Florence, Italy, Aug 23-31, **2005**, P.0703.1. *Acta Cryst.* **2005**, *A61*, C304-C305.

52. "Tailor Designed CdSe Quantum Dot Based Chemical Sensors for Hydrocarbon Detection". O. Vassiltsova, Z. Zhao, M. A. Petrukhina, M. Carpenter. 230th National Meeting of the ACS, Washington, DC, Aug 28-Sept 1, **2005**, paper COLL-217.

53. "Ruthenium(I) Complexes of Corannulene: Synthesis, Structures and Novel Coordination Mode". Y. Sevryugina, B. E. Weaver, E. A. Jackson, L. T. Scott, M. A. Petrukhina. 230th National Meeting of the ACS, Washington, DC, Aug 28-Sept 1, **2005**, paper INOR-119.

54. "Synthesis and Structures of New Ruthenium(I) Carbonyl Carboxylate Catalysts with Fluorinated Ligands". B. E. Weaver, Y. Sevryugina, M. A. Petrukhina. 7th Annual R. A. Laudise Symposium, Union College, Schenectady, NY,

Sept 24, **2005**.

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