

## Curriculum Vitae

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### Education

Ph.D.	05/2004	University of Nebraska-Lincoln, Prof. S. G. DiMagno
Diploma of Higher Education	03/1998	Higher Chemical College of the Russian Academy of Sciences, Moscow, Russia, Prof. Yu. N. Belokon

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### Research and Teaching Experience

Postdoctoral Fellow	03/2004 – present	Johns Hopkins University
Teaching/Research Assistant	08/1996 – 02/2004	University of Nebraska-Lincoln Organic and general chemistry recitations and labs
Undergraduate Research Assistant	01/1993 – 07/1996	Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, Russia.

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### Awards

- Stephen J. Fuerniss Award in Organic Chemistry, Lincoln, NE (2002)
- Korean Alumni of Chemistry Department Graduate Student Award, Lincoln, NE (2001)
- Soros Student, Moscow, Russia (1996)
- Diplomas of 5<sup>th</sup> and 6<sup>th</sup> Student Mendeleev Conferences, Moscow, Russia (1994, 1995)

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### Postdoctoral Publications

- (11) Smirnov, V. V.; Roth, J. P. **Mechanisms of Electron Transfer in Catalysis by Copper Zinc Superoxide Dismutase** *J. Am. Chem. Soc.* **2006**, *128*, 16424-16425.
- (10) Smirnov, V. V.; Roth, J. P. **Evidence for Cu–O<sub>2</sub> Intermediates in Superoxide Oxidations by Biomimetic Copper(II) Complexes** *J. Am. Chem. Soc.* **2006**, *128*, 3683-3695.
- (9) Smirnov, V. V.; Brinkley, D. W.; Lanci, M. P.; Karlin, K. D.; Roth, J. P. **Probing Metal-Mediated O<sub>2</sub> Activation in Chemical and Biological Systems** *J. Mol. Cat. A* **2006**, *251*, 100-107.
- (8) Lanci, M. P.; Brinkley, D. W.; Stone, K. L.; Smirnov, V. V.; Roth, J. P. **Structures of Transition States in Metal-Mediated O<sub>2</sub>-Activation Reactions** *Angew. Chem. Int. Ed.* **2005**, *44*, 7273-7276.

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### Graduate and Undergraduate Publications

- (7) Sun, H.; Smirnov, V. V.; DiMagno, S. G. **Slow Electron Transfer Rates for Fluorinated Cobalt Porphyrins: Electronic and Conformational Factors Modulating Metalloporphyrin ET** *Inorg. Chem.* **2003**, *42*, 6032-6040.
- (6) Smirnov, V. V.; Woller, E. K.; Tatman, D.; DiMagno, S. G. **Structure and Photophysics of  $\beta$ -Octafluoro-*meso*-tetraarylporphyrins** *Inorg. Chem.* **2001**, *40*, 2614-2619.
- (5) Audebert, P.; Miomandre, F.; DiMagno, S. G.; Smirnov, V. V.; Hapiot, P. **Polymerization of 3,4-Difluoropyrrole: Electrochemical and Physicochemical Behavior of Poly(Difluoropyrrole)** *Chem. Mater.* **2000**, *12*, 2025-2030.
- (4) Smirnov, V. V.; Woller, E. K.; DiMagno, S. G. **<sup>19</sup>F NMR and Structural Evidence for Spin-State Modulation of Six-Coordinate Cobalt(II) in a Weak Field Porphyrin Ligand** *Inorg. Chem.* **1998**, *37*, 4971-4978.
- (3) Woller, E. K.; Smirnov, V. V.; DiMagno, S. G. **A Straightforward Synthesis of 3,4-Difluoropyrrole** *J. Org. Chem.* **1998**, *63*, 5706-5707.
- (2) Belokon, Yu. N.; Kochetkov, K. A.; Churkina, T. D.; Chesnokov, A. A.; Smirnov, V. V.; Ikonnikov, N. S.; Orlova, S. A. **The First Example of Asymmetric Michael Reaction Catalyzed by Chiral Alkali Metal Alkoxides** *Russian Chem. Bull.* **1998**, *47*, 74-79.
- (1) Belokon, Yu. N.; Kochetkov, K. A.; Churkina, T. D.; Ikonnikov, N. S.; Orlova, S. A.; Smirnov, V. V.; Chesnokov, A. A. **Asymmetric Michael Addition of a Glycine Synthone to Methyl Methacrylate, Mediated by Sodium TADDOLate** *Mendeleev Commun.* **1997**, *4*, 137-138.

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### *Selected Presentations*

- (11) Mid-Atlantic Seaboard Inorganic Symposium (MASIS), August 16, **2006**, Washington, DC. **Superoxide Oxidation and Reduction by Copper Zinc Superoxide Dismutase.** Smirnov, V. V.; Roth, J. P.
- (10) 230<sup>th</sup> ACS National Meeting, August 28 – September 1, **2005**, Washington, DC. INOR-457. **Insights into Copper-Dioxygen Interactions from Kinetic Isotope Effect Measurements.** Smirnov, V. V.; Berkeley, E. R.; Karlin, K. D.; Roth, J. P.
- (9) ICBIC-12, 12<sup>th</sup> International Conference of Biological Inorganic Chemistry, July 31 – August 5, **2005**, Ann Arbor, MI. 2-VBG-109. **Oxygen Isotope Effects in Superoxide Oxidation by Tripodal Copper(II) Complexes.** Smirnov, V. V.; Berkeley, E. R.; Karlin, K. D.; Roth, J. P.
- (8) 229<sup>th</sup> ACS National Meeting, March 13-17, **2005**, San Diego, CA. ORG-290. **Gating Reversible Multielectron Transfer Reaction in Porphyrins and Metalloporphyrins.** Sun, H.; Smirnov, V. V.; Nelson, A. P.; Biffinger, J. C.; DiMagno, S. G.
- (7) 228<sup>th</sup> ACS National Meeting, August 22-26, **2004**, Philadelphia, PA. INOR-098. **Mechanistic Studies of Oxygen Activation Using Biomimetic Cu(II) and Cu(I) Complexes.** Smirnov, V. V.; Karlin, K. D.; Roth, J. P.
- (6) 36<sup>th</sup> ACS Midwest Regional Meeting, October 10-13, **2001**, Lincoln, NE. ORG-019. **Electronic Effect of Benzaldehyde p-Substituent in the Synthesis of  $\beta$ -Octafluoro-meso-tetraarylporphyrins.** DiMagno, S. G.; Smirnov, V. V.; Nelson, A. P.; Woller, E. K.
- (5) 222<sup>nd</sup> ACS National Meeting, August 26-30, **2001**, Chicago, IL. INOR-347. **Organometallic Complexes of Electron-Deficient Zirconium(IV) Porphyrins.** DiMagno, S. G.; Smirnov, V.
- (4) 218<sup>th</sup> ACS National Meeting, August 22-26, **1999**, New Orleans, LA. INOR-537. **Structure and Photophysics of  $\beta$ -Octafluoroporphyrins: Evidence for Electronic Control of Porphyrin Excited State Conformation.** DiMagno, S. G.; Smirnov, V. V.; Woller, E. K.; Tatman, D.
- (3) 216<sup>th</sup> ACS National Meeting, August 23-27, **1998**, Boston, MA. INOR-604.  **$\beta$ -Octafluorometalloporphyrins.** Smirnov, V. V.; DiMagno, S. G.
- (2) 215<sup>th</sup> ACS National Meeting, March 29-April 2, **1998**, Dallas, TX. INOR-320. **Resonance Raman, FT-Raman, and FT-IR spectroscopy of  $\beta$ -perhalogenated metalloporphyrins.** Walters, V. A.; DiMagno, S. G., Smirnov, V. V.; de Paula, J. C.
- (1) 32<sup>nd</sup> ACS Midwest Regional Meeting, October 29-November 1, **1997**, Lake of the Ozarks, MO. INOR-146. **Magnetic, Optical, and Redox Properties of Cobalt(II)  $\beta$ -Octafluoroporphyrins.** Smirnov, V. V.; DiMagno, S. G.

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### *Affiliations*

- The Society of Biological Inorganic Chemistry, 07/2005 – present
- American Association for the Advancement of Science, 07/2001 – present
- Phi Lambda Upsilon Honorary Chemical Society, 04/1998 – present
- American Chemical Society, 11/1997 – present

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### *References*

Prof. Justine P. Roth, Department of Chemistry, Johns Hopkins University, (410) 516-7835, jproth@jhu.edu

Prof. Kenneth D. Karlin, Department of Chemistry, Johns Hopkins University, (410) 516-8027, karlin@jhu.edu

Prof. Stephen G. DiMagno, Department of Chemistry, University of Nebraska-Lincoln, (402) 472-9895, sdimagno1@unl.edu

Prof. Patrick H. Dussault, Department of Chemistry, University of Nebraska-Lincoln, (402) 472-3634, pdussault1@unl.edu