Andrey Solovyev

E-mail: asmolgam@gmail.com

Current Occupation:

2013-present — Self-employed developer: chemistry, educational, and game applications for mobile devices. http://asmolgam.com/

Education:

2007–2012 — *Ph.D. Degree in Chemistry*
University of Pittsburgh, Pittsburgh, Pennsylvania
Advisor: Prof. Dennis P. Curran
Cumulative GPA 4.0 / 4.0

2002–2007 — *B.S. Degree in Chemistry*
Saint-Petersburg State University, St. Petersburg, Russia
Advisor: Prof. Alexander G. Shavva
Cumulative GPA 5.0 / 5.0

Research Experience:

2012 — **Lawrence Berkeley National Laboratory**
University of California, Berkeley; Department of Chemistry
Postdoctoral Fellow
Synthesis of model compounds of metalloenzymes.
Advisor: Prof. John F. Hartwig

2008–2011 — **University of Pittsburgh**; Department of Chemistry
Graduate Research Assistant
Chemistry of N-heterocyclic carbene-borane complexes.
Advisor: Prof. Dennis P. Curran

2006 — **Bowling Green State University**, Bowling Green, Ohio
Center for Photochemical Sciences
Summer Research Assistant
Development of a new method of synthesis of aminobenzo[*b*]thiophenes.
Advisors: Prof. Douglas C. Neckers, Dr. Dmitry A. Androsov

2004–2007 **St. Petersburg State University**, Russia
Department of Chemistry, Division of Natural Products Chemistry
Undergraduate Research Assistant:
Isolation of triterpenoid betulin and synthesis of its derivatives.
Total synthesis of modified analogs of estrogens via the Torgov scheme.
Advisors: Prof. Alexander G. Shavva, Dr. Svetlana N. Morozkina

Teaching Experience:

2007–2008 **University of Pittsburgh**, Department of Chemistry
Laboratory instructor: CHEM 0330 Organic Chemistry Laboratory 1 and CHEM 0340 Organic Chemistry Laboratory 2.

Scholarships and Awards:

2011 Reaxys PhD Prize Finalist.

2011 Goldblatt Predoctoral Fellowship (University of Pittsburgh).

2010 Andrew Mellon Predoctoral Fellowship (University of Pittsburgh).

2009 Graduate Excellence Fellowship (University of Pittsburgh).

2007 Bayer Fellowship (Predoctoral Chairman's Scholar Grant, University of Pittsburgh).

2006 Armin de Meijere Scholarship for the best scientific project in organic chemistry by an undergraduate student (St. Petersburg State University).

2006 Scholarship provided by ChemBridge Corporation for the 4th place (the best result among regional participants) at the 5th All-Russian Olympiad in Organic Chemistry, Moscow, Russia.

2003 The 2nd degree diploma at the Internet Olympiad by InnoCentive Inc.

2002 Potanin Scholarship for winners of the International Olympiads.

2002 Silver medal at the 34th International Chemistry Olympiad, Groningen, the Netherlands.

Publications:

14. Prokofjevs, A.; Kampf, J. W.; **Solovyev, A.**; Curran, D. P.; Vedejs, E. Weakly Stabilized Primary Borenium Cations and Their Dicationic Dimers. *J. Am. Chem. Soc.* **2013**, *135*, 15686-15689. [link]
13. **Solovyev, A.**; Lacôte, E.; Curran, D. P. Tetrahydrofuran ring opening and related reactions with N-heterocyclic carbine-boryl trifluoromethanesulfonate. *Dalton Trans.* **2013**, *42*, 695-700. [link]

12. **Solovyev, A.**; Geib, S. J.; Lacôte, E.; Curran, D. P. Reactions of Boron-Substituted N-Heterocyclic Carbene Boranes with Triflic Acid. Isolation of a New Dihydroxyborenium Cation. *Organometallics* **2012**, *31*, 54-56. [link]

11. **Solovyev, A.**; Lacôte, E.; Curran, D. P. Ring Lithiation and Functionalization of Imidazol-2-ylidene-boranes. *Org. Lett.* **2011**, *13*, 6042-6045. [link]

10. Curran, D. P.; **Solovyev, A.**; Makhlouf Brahmi, M.; Fensterbank, L.; Malacria, M.; Lacôte, E. Synthesis and Reactions of N-Heterocyclic Carbene Boranes. *Angew. Chem. Int. Ed.* **2011**, *50*, 10294-10317. [link]

    The paper is highlighted on the Cover Picture. [link]

9. **Solovyev, A.**; Chu, Q.; Geib, S. J.; Fensterbank, L.; Malacria, M.; Lacôte, E.; Curran, D. P. Substitution Reactions at Tetracoordinate Boron: Synthesis of N-Heterocyclic Carbenes Boranes with Boron–Heteroatom Bonds. *J. Am. Chem. Soc.* **2010**, *132*, 15072-15080. [link]

8. Monot, J.; **Solovyev, A.**; Bonin-Dubarle, H.; Derat, É.; Curran, D. P.; Robert, M.; Fensterbank, L.; Malacria, M.; Lacôte, E. Generation and Reactions of an Unsubstituted N-Heterocyclic Carbene Boryl Anion. *Angew. Chem. Int. Ed.* **2010**, *49*, 9166-9169. [link]

    The paper is highlighted on the Inside Cover. [link]

7. **Solovyev, A.**; Ueng, S.-H.; Monot, J.; Fensterbank, L.; Malacria, M.; Lacôte, E.; Curran, D. P. Estimated Rate Constants for Hydrogen Abstraction from N-Heterocyclic Carbene–Borane Complexes by an Alkyl Radical. *Org. Lett.* **2010**, *12*, 2998-3001. [link]

6. Walton, J. C.; Makhlouf Brahmi, M.; Fensterbank, L.; Lacôte, E.; Malacria, M.; Chu, Q.; Ueng, S.-H.; **Solovyev, A.**; Curran, D. P. EPR Studies of the Generation, Structure, and Reactivity of N-Heterocyclic Carbene Borane Radicals. *J. Am. Chem. Soc.* **2010**, *132*, 2350-2358. [link]

5. Androsov, D. A.; **Solovyev, A. Y.**; Petrov, M. L.; Butcher, R. J.; Jasinski, J. P. A convenient approach towards 2- and 3-aminobenzo[*b*]thiophenes. *Tetrahedron* **2010**, *66*, 2474-2485. [link]

4. Chu, Q.; Makhlouf Brahmi, M.; **Solovyev, A.**; Ueng, S.-H.; Curran, D. P.; Malacria, M.; Fensterbank, L.; Lacôte, E. Ionic and Organometallic Reductions with N-Heterocyclic Carbene Boranes. *Chem. Eur. J.* **2009**, 12937-12940. [link]

3. Ueng, S.-H.; **Solovyev, A.**; Yuan, X.; Geib, S. J.; Fensterbank, L.; Lacôte, E.; Malacria, M.; Newcomb, M.; Walton, J. C.; Curran, D. P. *N*-Heterocyclic Carbene Boryl Radicals: A New Class of Boron-Centered Radical. *J. Am. Chem. Soc.* **2009**, *131*, 11256-11262. [link]

2. **Solovyev, A. Y.**; Androsov, D. A.; Neckers, D. C. One-pot Synthesis of Substituted 2-Aminobenzo[*b*]thiophenes. *J. Org. Chem.* **2007**, *72*, 3122-3124. [link]

1. Selivanov, S. I.; **Solov'ev, A. Yu.**; Morozkina, S. N.; Shavva, A. G. An NMR study of the conformational mobility of steroid estrogen 7α-methyl-8α analogues. *Russian Journal of Bioorganic Chemistry* **2007**, *33*, 302-309. [link]

Presentations:

3. **Solovyev, A.** Chemistry of N-Heterocyclic Carbenes-Boranes. Oral presentation at *the 2011 Graduate Research Symposium (DOC ACS)*, University of California, Santa Barbara CA, July 14–17, **2011**.

2. **Solovyev, A.**; Ueng, S.-H.; Monot, J.; Curran, D. P. Chemistry of Complexes between N-Heterocyclic Carbenes and Boranes. Poster presentation at *the 42th National Organic Chemistry Symposium*, Princeton University, Princeton NJ, June 5–9, **2011**.

1. **Solovyev, A.**; Geib, S. J.; Curran D. P. Synthesis and Nucleophilic Substitution of N-Heterocyclic Carbene–Boryl Halides and Sulfonates. Poster presentation at *the Organometallic Chemistry Gordon Research Conference*, Salve Regina University, Newport RI, July 11–16, **2010**.