

Sergei Savikhin

Conference presentations (Jan. 2003 - Aug. 2014)

(underlined - members of Savikhin's group)

75. Shigeharu Kihara, Daniel Hartzler, Gregory S. Orf, Robert E. Blankenship, **Sergei Savikhin**. Gordon Research Conference on Photosynthesis, Triplet energy transfer and photoprotection in Fenna-Matthews-Olson complex. West Dover, VT, August 10-15 2014.
74. Shigeharu Kihara, Daniel Hartzler, Gregory S. Orf, Robert E. Blankenship, **Sergei Savikhin**. The Fate of the Triplet Excitations in the Fenna-Matthews-Olson Complex and Stability of the Complex. 58th Annual Meeting of Biophysical Society. San Francisco, February 15-19, 2014.
73. Stanislav D. Zakharov, Saif S. Hasan, Adrien Chauvet, Valentyn Stadnytskyi, **Sergei Savikhin**, William A. Cramer. Dielectric Heterogeneity in the Cytochrome B6/F Complex. 58th Annual Meeting of Biophysical Society. San Francisco, February 15-19, 2014.
72. Dan Hartzler, Dariusz Niedzwiedzki, Donald A. Bryant, Robert E. Blankenship, **Sergei Savikhin**. Mapping triplet states of (bacterio)chlorophylls. The 39th Annual Midwest/Southeast Photosynthesis Meeting, Nov. 8-10 2013, Turkey Run, IN
71. Adrien Chauvet, Valentyn Stadnytskyi, Steven Romberger, John H. Golbeck, **Sergei Savikhin**. The intrinsic charge separation rate in the reaction center from *Chlorobium tepidum*. The 39th Annual Midwest/Southeast Photosynthesis Meeting, Nov. 8-10 2013, Turkey Run, IN.
70. Lifen Yan, Katherine Davis, Eric Goggins, Walter Weare, Valentyn Stadnytskyi, **Sergei Savikhin**, Yulia Pushkar. Time-resolved Spectroscopy Study of Electron Transfer in a New Class of Co-based Chromophores. The 16th International Congress on Photosynthesis. Aug. 11-16 2013, St. Louis
69. Adrien Chauvet, Valentyn Stadnytskyi, Steven Romberger, John H. Golbeck, **Sergei Savikhin**. The intrinsic charge separation rate in the reaction center from *Chlorobium tepidum*. The 16th International Congress on Photosynthesis. Aug. 11-16 2013, St. Louis.
68. Shigeharu Kihara, Daniel Hartzler, Gregory S. Orf, Robert E. Blankenship, **Sergei Savikhin**. The fate of the triplet excitations in the Fenna- Matthews-Olson complex. The 16th International Congress on Photosynthesis. Aug. 11-16 2013, St. Louis

67. Dan Hartzler, Dariusz Niedzwiedzki, Donald A. Bryant, Robert E. Blankenship, Sergei Savikhin. Mapping triplet states of (bacterio)chlorophylls. The 16th International Congress on Photosynthesis. Aug. 11-16 2013, St. Louis
66. S. D. Zakharov, S. Saif Hasan, A. Chauvet, **S. Savikhin**, W. A. Cramer, Dielectric Heterogeneity in the Cytochrome b₆f Complex. The 16th International Congress on Photosynthesis. Aug. 11-16 2013, St. Louis.
65. **S. Savikhin**. The fate of triplet states and photoprotection in photosynthesis: from monomeric (B)Chls to pigment-protein complexes. 2013 Photosynthesis Systems Research Meeting, Annapolis Nov. 3-6 2013.
64. Stanislav D. Zakharov, Syed Saif Hasan, Adrien Chauvet, **Sergei Savikhin**, William A. Cramer. Electrostatically Constrained Pathway of Intra-Monomer Electron Transfer in the Cytochrome B₆F Complex of Oxygenic Photosynthesis. 56th Annual Meeting of Biophysical Society. San Diego, February 25-29, 2013
63. S. Kihara, **S. Savikhin**. Oxygen concentration in functioning photosynthetic organisms. The 11th Nordic Photosynthesis Congress, Naantali, Finland, Sept. 11-14, 2012
62. Dan Hartzler, Dariusz Niedzwiedzki, Robert Blankenship, **Sergei Savikhin**. Mapping triplet state energies of chlorophylls. 38th Annual Midwest/Southeast Photosynthesis Meeting, Turkey Run State Park, IN, Nov. 9-11, 2012
61. Stanislav D. Zakharov, S. Saif Hasan, Adrien Chauvet, **Sergei Savikhin** and William A. Cramer. Electrostatically constrained pathway of intra-monomer electron transfer in the cytochrome b₆f complex. 38th Annual Midwest/Southeast Photosynthesis Meeting, Turkey Run State Park, IN, Nov. 9-11, 2012
60. D. A. Hartzler, S. Kihara, H. Li, Y. Tsukatani, J. Niklas, O. Poluektov, D. A. Bryant, **S. Savikhin**. Efficient intrinsic photoprotection in strongly coupled (bacterio)chlorophyll complexes. 56th Annual Meeting of Biophysical Society. San Diego, February 25-29, 2012
59. S. Kihara, S. Hasan, W. Cramer, **S. Savikhin**. The role of oxygen in long-distance triplet energy transfer from Chlorophyll a to β -Carotene in the Cytochrome b₆f complex of Oxygenic photosynthesis. 37th Midwest/Southeast Photosynthesis Meeting, Turkey Run, IN, November 11-13, 2011
58. D. Hartzler, **S. Savikhin**, Mapping triplet state energies of chlorophylls. 37th Midwest/Southeast Photosynthesis Meeting, Turkey Run, IN, November 11-13, 2011

57. A. Chauvet, B. Ferlez, J. H. Golbeck, T. W. Johnson, **S. Savikhin**. Spectral resolution of the first electron acceptor in type I reaction centers of *Heliobacterium modesticaldum* AND *Chlorobium tepidum*. 37th Midwest/Southeast Photosynthesis Meeting, Turkey Run, IN, November 11-13, 2011
56. A. Chauvet, N. Dashdorj, J. H. Golbeck, T. W. Johnson, **S. Savikhin**. Spectral Resolution of the first electron acceptor in photosystem I. 37th Midwest/Southeast Photosynthesis Meeting, Turkey Run, IN, November 11-13, 2011
55. D. A. Hartzler, S. Kihara, H. Li, Y. Tsukatani, J. Niklas, O. Poluektov, D. A. Bryant, **S. Savikhin**. Photoprotection in strongly coupled photosynthetic antennae. Gordon Research Conference on Photosynthesis. Davidson, NC, June 12-17, 2011
54. D. A. Hartzler, S. Kihara, O. Poluektov, H. Li, J. A. Maresca, D. A. Bryant, **S. Savikhin**. Triplet excitations in (bacterio)chlorophylls and their aggregates. 36th Midwest/Southeast Photosynthesis Meeting, Turkey Run, IN, October 29 - 31, 2010
53. A. Chauvet, B. Jagannathan, J. H. Golbeck, **S. Savikhin**. The first electron acceptor in the type I reaction center from the green sulfur bacteria *Chlorobium tepidum*. 36th Midwest/Southeast Photosynthesis Meeting, Turkey Run, IN, October 29 - 31, 2010
52. S. Kihara, S. Zakharov, W. A. Cramer, **S. Savikhin**. Oxygen dependence of triplet energy transfer from chlorophyll a to β -Carotene inside the cytochrome b6/f complex of oxygenic photosynthesis. 36th Midwest/Southeast Photosynthesis Meeting, Turkey Run, IN, October 29 - 31, 2010
51. H. Kim, H. Li, Maresca J. A., D. A. Bryant, **S. Savikhin**. Triplet excitons: a novel photoprotection mechanism in chlorosomes and oligomers of BChl. 15th International Congress of Photosynthesis. Beijing, China, August 22-27, 2010
50. A. Chauvet, B. Jagannathan, J. H. Golbeck, **S. Savikhin**. Type I reaction center from the green sulfur bacteria: is Chl a a primary electron acceptor? 35th Midwest/Southeast Photosynthesis Meeting, Turkey Run, IN, November 13 - 15, 2009
49. **S. Savikhin**. Triplet excitons: a novel photoprotection mechanism in strongly coupled photosynthetic complexes. DOE Photosynthetic Systems. October 25-27, 2009
48. **S. Savikhin**. (Invited Talk) Triplet excitons: a novel photoprotection mechanism in photosynthetic complexes. 15th International Congress of Photobiology - ICP 2009, Düsseldorf, Germany, June 18-23, 2009

47. A. Chauvet, B. Jagannathan, J. H. Golbeck, **S. Savikhin**. Type I reaction center from the green sulfur bacterium *Chlorobium tepidum*: is Chl a a primary electron acceptor? Biophysical Society 53rd Annual Meeting. February 28 - March 4, 2009
46. **S. Savikhin**. Multidisciplinary REU program at Purdue. Physics REU director workshop. College Park, MD, June 11-13, 2008
45. A. Chauvet, B. Jagannathan, J. H. Golbeck, **S. Savikhin**. Type I reaction center from the green sulfur bacterium *Chlorobium tepidum*: is Chl a a primary electron acceptor? 34th Midwest/Southeast Photosynthesis Meeting, Turkey Run, IN, October 21 - November 2, 2008
44. H. Kim, Maresca J.A., Bryant D. A., **S. Savikhin**. Triplet excitons: a novel photoprotection mechanism in chlorosomes and in olicobers of BChl. Gordon Research Conference on Photosynthesis, Mount Holyoke College, June 22-27, 2008.
43. **S. Savikhin**, S. Kihara, Oxygen dynamics in photosynthetic membranes. American Physical Society March Meeting, New Orleans, March 10-14, 2008
42. **S. Savikhin**, S. Kihara. Oxygen concentration in photosynthetic membranes. Joint 52nd Annual Meeting of the Biophysical Society and 16th IUPAB International Biophysical Congress. Long Beach, CA, February 2-6, 2008
41. S. Kihara and **S. Savikhin**. On oxygen concentration in photosynthetic membranes. Midwest/Southeastern Photosynthesis Meeting, Turkey Run, November 9-11, 2007.
40. J. Yan, N. Dashdorj, D. Baniulis, E. Yamashita, **S. Savikhin** and W. A. Cramer. p-Side Electron Transfer in the Cytochrome b₆f Complex does not depend on the Mobility of Its Single Chlorophyll a Molecule. Midwest/Southeastern Photosynthesis Meeting, Turkey Run, November 9-11, 2007.
39. **S. Savikhin**, H. Kim, H. Li, J. Maresca, D. Bryant, Novel photo-protection mechanism in strongly coupled chlorophyll complexes: triplet excitons in chlorosomes and in artificial chlorophyll aggregates. XIVth International Congress on Photosynthesis, Glasgow, UK, July 22-27, 2007. *This was one of only 4 submissions selected for oral presentation in this session; the remaining 66 were given as posters.*
38. N. Dashdorj, E. Yamashita, J. Schaibley, W. A. Cramer, and **S. Savikhin**. Ultrafast Optical Studies of the Cytochrome b₆f Complex in Solution and Crystalline States. XIVth International Congress on Photosynthesis, Glasgow, UK, July 22-27, 2007

37. **S. Savikhin**, *H. Kim*, H. Li, J. Maresca, D. Bryant. Novel photo-protection mechanism in strongly coupled chlorophyll complexes: triplet excitons in chlorosomes and in artificial chlorophyll aggregates. Light Harvesting Systems Workshop, Drymen, UK, July 19-21, 2007
36. **S. Savikhin**, *H. Kim*, H. Li, J. Maresca, D. Bryant, Novel photo-protection mechanism in strongly coupled chlorophyll complexes: triplet excitons in chlorosomes and in artificial chlorophyll aggregates. American Physical Society Meeting, Denver, CO, March 5-9, 2007.
35. *H. Kim*, H. Li, J. A. Maresca, D. A. Bryant, and **S. Savikhin**. Novel photo-protection mechanism in strongly coupled chlorophyll complexes: triplet excitons in chlorosomes and in artificial chlorophyll aggregates. 51st Meeting of American Biophysical Society, Baltimore MD, March 3-7, 2007
34. *Hanyoup Kim*, Hui Li, Julia A. Maresca, Donald A. Bryant and **Sergei Savikhin**. "Novel photo-protection mechanisms in chlorosomes from green sulfur bacterium *Chlorobium tepidum*." 32nd Annual Midwest Photosynthesis Meeting, October 29-31, 2006 Turkey Run State Park, Marshall, IN
33. *H. Kim*, *N. Dashdorj*, H. Zhang, J. Yan, W. A. Cramer, and **S. Savikhin**. "Divergence of protein structure in solvent from that in x-ray quality crystals: probing the local environment of Chl a in the cytochrome b6f complexes by ultrafast spectroscopy." 32nd Annual Midwest Photosynthesis Meeting, October 29-31, 2006 Turkey Run State Park, Marshall, IN
32. *N Dashdorj*, Yamashita G., Cramer WA and **Savikhin S** (2006). "Assessing the crystal packing on the protein structure: Comparative ultrafast optical studies of oligomeric protein complex in solution and in single crystals." Gordon Research Conference on Photosynthesis, July 2-7, Bryant University, Smithfield, RI
31. *H. Kim*, M. D. Kane, S. Kim, W. Dominguez, B. M. Applegate, and **S. Savikhin** (2006). "Development of False Signal Suppressing Biosensor Utilizing Color Changing Molecular Beacon on Microarray Platform for Rapid Detection of *Escherichia Coli* O157:H7." The Ninth World Congress on Biosensors, May 10-12, Toronto, ON, Canada
30. *N. Dashdorj*, H. Zhang, J. Yan, E. Yamashita, *J. Schaibley*, W. A. Cramer, and **S. Savikhin** (2006). "Divergence of protein structure in solvent from that in X-ray quality crystals: probing the local environment of Chl a in the cytochrome b6f complexes by ultrafast spectroscopy." American Physical Society Meeting, March 13-17, Baltimore, MD

29. H. Kim, N. Dashdorj, H. Zhang, J. Yan, W. A. Cramer, and **S. Savikhin** (2006). "Novel protection mechanisms against singlet oxygen formation by the Chl a molecule in the cytochrome b6f complex of oxygenic photosynthesis." American Physical Society Meeting, March 13-17, Baltimore, MD
28. H. Kim, H. Li, D. A. Bryant, and **S. Savikhin** (2006). "Novel photoprotection mechanisms in chlorosomes from green sulfur bacterium *Chlorobium tepidum*." American Physical Society Meeting, March 13-17, Baltimore, MD
27. H. Kim, H. Li, J. A. Maresca, D. A. Bryant, and **S. Savikhin** (2006) "Novel Photo-protection mechanisms in chlorosomes from the green sulfur bacterium *Chlorobium Tepidum*." 50th Meeting of American Biophysical Society. February 18-22, Salt Lake City, Utah. 775-Plat.
26. Applegate BM, **Savikhin S**, Fratamico P, Dominguez W, Kim H, Aimet A, Kane MD (2005) "Multiplexed detection of pathogens using fluorescence resonance energy transfer in a spatial detection format." 7th Annual ARS-Purdue Research Planning Workshop, Nov 2-3, West Lafayette, IN
25. H. Kim, Hui Li, Julia A. Maresca, Donald A. Bryant, and **S. Savikhin** (2005) "Novel photo-protection mechanisms in chlorosomes from the green sulfur bacterium *chlorobium tepidum*." 31st Midwest/Southeast Photosynthesis Meeting, October 28-30, Turkey Run, IN
24. N. Dashdorj, J. Yan, W. A. Cramer, and **S. Savikhin** (2005). "Tuning the chlorophyll singlet excited state lifetime: point mutagenesis studies in the nanospace of the unique chlorophyll a of the cytochrome b6f complex." 31st Midwest/Southeast Photosynthesis Meeting, October 28-30, Turkey Run, IN
23. N. Dashdorj, G. Shen, W. Xu, J. H. Golbeck, and **S. Savikhin** (2005). "Quaternary structural rearrangements: subunit deletion induced effects on the excitonic coupling of the primary electron donor in photosystem I." 31st Midwest/Southeast Photosynthesis Meeting, October 28-30, Turkey Run, IN
22. H. Kim, N. Dashdorj, H. Zhang, J. Yan, W. A. Cramer, and **S. Savikhin** (2005) "The Chl a molecule in the cytochrome b6f complex: Unique protection mechanisms against singlet oxygen," Gordon Research Conference, July 3-8, Bryant University, Smithfield, RI
21. Dominguez, W., S. Kim, H. Kim, **S. Savikhin**, M. Kane, and B. M. Applegate (2005). "Multiplex PCR for the Simultaneous Detection of the Foodborne Pathogens: *Escherichia coli* O157:H7, *Salmonella enterica*, and *Listeria*

monocytogenes.” American Society for Microbiology General Meeting, June 5-9, 2005, Atlanta, GA

20. N. Dashdorj, H. Zhang, J. Yan, H. Kim, W. A. Cramer and **S. Savikhin** (2005) “Quenching the singlet excited state of the monomeric chlorophyll a in the cytochrome b6f complex of oxygenic photosynthesis: Excitation-induced electron transfer mechanism.” 49th Annual Meeting of American Biophysical Society. February 12-16, Long Beach, CA. 2493-Pos.
19. H. Kim, N. Dashdorj, H. Zhang, J. Yan, W. A. Cramer, and **S. Savikhin** (2005) “The Chl a molecule in the cytochrome b6f of oxygenic photosynthesis: A unique protection mechanism against singlet oxygen formation.” 49th Annual Meeting of American Biophysical Society. February 12-16, Long Beach, CA. 864-Plat.
18. W. Dominquez, S. Kim, H. Kim, **S. Savikhin**, P. Fratamico, B. Applegate. Multiplexed PCR for detection of foodborn pathogens. USDA-ARS workshop, Philadelphia, PA, 2004
17. Dashdorj N, Xu W, Chitnis PR, Martinsson P, and **Savikhin S** (2004) “Stark Effect in Photosystem I: A Probe of Optical and Dielectric Properties around the Secondary Electron Acceptor.” 51st Midwest Solid State Conference. Purdue University, West Lafayette, IN. Oct 30-31.
16. Dashdorj N, Zhang H, Kim H, Yan J, Cramer WA, and **Savikhin S** (2004). “Quenching the Singlet Excited State of the Unique Chlorophyll a in the Cytochrome b6f Complex as a Unique Photoprotection Mechanism.” 30th Annual Midwest Photosynthesis Meeting. Turkey Run State Park, Marshall, IN. Oct 29-31.
15. Kim H, Dashdorj N, Zhang H, Yan J, Cramer WA, and **Savikhin S** (2004) “The chlorophyll a Molecule in the Cytochrome b6f Complex: Is It Protected against Singlet Oxygen Formation?” 30th Midwest Photosynthesis Meeting. Turkey Run State Park, Marshall, IN, U.S.A. Oct 29-31.
14. Dashdorj N, Xu W, Cohen RO, Golbeck JH, and **Savikhin S** (2004) “Probing the Active Electron Transfer Branch in the Photosystem I Reaction Center from Synechocystis sp. PCC 6803.” 13th International Congress of Photosynthesis, Aug 29 - Sep 3. Montréal, QU, Canada
13. Dashdorj N, Zhang H, Kim H, Yan J, Cramer WA, and **Savikhin S** (2004). “Unusual Optical Properties of the Monomeric Chlorophyll a in the Cytochrome b6f Complex of Oxygenic Photosynthesis.” 13th International Congress of Photosynthesis, Aug 29 - Sep 3. Montréal, QU, Canada

12. Kim H, Zhang H, Dashdorj N, Yan J, Cramer WA, and **Savikhin S** (2004). "Evidence For Long Range Triplet Excited State Energy Transfer from the Chlorophyll a to Carotenoid in the Cytochrome b6f Complex of Oxygenic Photosynthesis." 13th International Congress of Photosynthesis, Aug 29 - Sep 3. Montréal, QU, Canada
11. Dashdorj N, Zhang H, Kim H, Yan J, Cramer WA, and **Savikhin S** (2004) "Optical Properties of the Chlorophyll a Molecule in the Cytochrome b6f Complex of Oxygenic Photosynthesis." 32nd Annual Meeting of the American Society for Photobiology, Seattle, WA. July 10-14.
10. Dashdorj N, Xu W, Golbeck JH, Chitnis PR, and **Savikhin S** (2004). "Probing Active Electron Transfer Branch in the Photosystem I Reaction Center from Synechocystis sp. PCC 6803 by means of Ultrafast Spectroscopy." 32nd Annual Meeting of the American Society for Photobiology. Seattle, WA. July 10-14, 2004.
9. Dashdorj N, Zhang H, Kim H, Yan J, Cramer WA, and **Savikhin S** (2004). "Optical Properties of the Single Chlorophyll a Molecule in the Cytochrome b6f Complex of Oxygenic Photosynthesis". Biophysical Society's 48th Annual Meeting. Baltimore, MD. Feb. 14-18.
8. Dashdorj N, Xu W, Chitnis PR, Golbeck JH, and **Savikhin S** (2003). "Probing Active Electron Transfer Branch in Photosystem I: Ultrafast Pump-Probe Spectroscopy." 29th Annual Midwest Photosynthesis Meeting. TurkeyRun State Park, Marshall, IN. Nov. 2-4.
7. Dashdorj N, Xu W, Chitnis PR, Martinsson P, and **Savikhin S** (2003). "Electrochromic Shift and Effective Dielectric Constant around the Primary Electron acceptor in Photosystem I." 29th Annual Midwest Photosynthesis Meeting. TurkeyRun State Park, Marshall, IN. Nov 2-4.
6. Dashdorj N, Xu W, Chitnis PR, Martinsson P, and **Savikhin S** (2003). Electrochromic Shift and Effective Dielectric Constant around the Primary Electron Acceptor in Photosystem I." Gordon Research Conference on Photosynthesis. Roger Williams University, Bristol, RI. June 22-27.
5. Dashdorj N, Xu W, Chitnis PR, Shen G, Golbeck JH, and **Savikhin S** (2003). "Probing Active Electron Transfer Branch in Photosystem I: Ultrafast Pump-Probe Spectroscopy. Gordon Research Conference on Photosynthesis." Roger Williams University, Bristol, RI. June 22-27.

4. **Savikhin S**, Dashdorj N, Xu W, Chitnis PR, Shen G, and Golbeck JH (2003). Probing Active Electron Transfer Branch in Photosystem I: Ultrafast Pump-Probe Spectroscopy. Photosystem I Conference 2003. Berlin, Germany. May 12-15.
3. **Savikhin S**, Dashdorj N, Xu W, Martinsson P, and Chitnis PR (2003). "Local dielectric Constant around the Primary Electron Acceptor in Photosystem I: A Probe for Protein Matrix Relaxation." Annual American Physical Society March Meeting. Austin, TX. March 3-7.
2. Dashdorj N, Xu W, Chitnis PR, and **Savikhin S** (2003). "Probing Active Electron Transfer Branch in the Photosystem I Reaction Center by means of Ultrafast spectroscopy. Biophysical Society's 47th Annual Meeting. San Antonio, TX. March 1-5.
1. Xu W, Martinsson P, Struve WS, Dashdorj N, Chitnis PR, and **Savikhin S** (2002) "Probing Active Electron Transfer Branch in Photosystem I Reaction Center. Gordon Research Conference on Photosynthesis." RogerWilliams University, Bristol, RI. June 16-21.