Robert E. Blankenship

Formerly at:
Departments of Biology and Chemistry
Washington University in St. Louis
St. Louis, Missouri 63130
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EDUCATION:

University of California, Berkeley – Ph.D. in Chemistry, 1975
Nebraska Wesleyan University, Lincoln, Nebraska – B.S. in Chemistry with distinction, 1970

PROFESSIONAL EXPERIENCE:

7/19–Present – Lucille P. Markey Distinguished Professor of Arts and Sciences, Emeritus, Departments of Biology and Chemistry, Washington University, St. Louis, MO
7/06–7/19 – Lucille P. Markey Distinguished Professor of Arts and Sciences, Departments of Biology and Chemistry, Washington University, St. Louis, MO
7/08–7/19 – Secondary Faculty Appointment, Department of Biochemistry and Molecular Biophysics, Washington University, St. Louis, MO
7/06–Present – Professor of Chemistry and Biochemistry, Emeritus, Arizona State University, Tempe, AZ
7/02–6/06 – Chair, Department of Chemistry and Biochemistry, Arizona State University, Tempe, AZ
7/88–6/06 – Professor of Chemistry and Biochemistry, Arizona State University, Tempe, AZ
7/85–6/88 – Associate Professor of Chemistry, Arizona State University, Tempe, AZ
7/79–6/85 – Assistant Professor of Chemistry, Amherst College, Amherst, MA
6/76–6/79 – Postdoctoral Fellow, Department of Biochemistry, University of Washington, Seattle, WA with Prof. William Parson
8/75–12/75 – Assistant Professor of Chemistry, American University of Beirut, Beirut, Lebanon
1/75–7/75 & 1/76–5/76 – Postdoctoral Fellow, Lawrence Berkeley Lab., Berkeley, CA, with Prof. Kenneth Sauer
9/70–12/74 – Graduate Student, Department of Chemistry, University of California, Berkeley, CA, Prof. Kenneth Sauer, Advisor

RESEARCH INTERESTS:

Excitation and electron transfer in photosynthetic systems
Origin and early evolution of photosynthesis and nitrogen fixation
Metalloenzymes involved in electron transfer and oxidative stress processes

LEADERSHIP POSITIONS

Director, Photosynthetic Antenna Research Center (PARC), a DOE Energy Frontier Research Center, Washington University in St. Louis, 2009–2018
Chair, Department of Chemistry and Biochemistry, Arizona State University, 2002–2006
President, International Society for Photosynthesis Research, 2001–2004
Panel Manager, USDA Competitive Research Grants, Photosynthesis and Respiration Program, 1996
Director, Center for the Study of Early Events in Photosynthesis, Arizona State University, 1988–1991
Student Body President, Nebraska Wesleyan University, 1969–1970

AWARDS:

Outstanding Achievement Award in Photosynthesis Research, 11th International Conference on Photosynthesis and Hydrogen Energy Research for Sustainability, Istanbul, 2023
Midwest Award, American Chemical Society, 2015
Lifetime Achievement Award, Rebeiz Foundation for Basic Research, 2013
Paper of the Year, Rebeiz Foundation for Basic Research, 2013
Communications Award, International Society of Photosynthesis Research, 2013
Fellow, American Academy of Microbiology, 2012
Charles F. Kettering Award for Excellence in Photosynthesis, American Society of Plant Biologists, 2008
Beatrice NE Educational Foundation Hall of Fame, 2008
Fellow, American Association for the Advancement of Science, 2004
Founding Fellow, Arizona Arts, Sciences and Technology Academy, 2004
Graduate Mentoring Award, Arizona State University, 1998
Graduate College Distinguished Research Award, Arizona State University, 1992
Alumni Achievement Award, Nebraska Wesleyan University, 1991
Who's Who in the World
Who's Who in America
Who's Who in Science and Engineering
Who's Who in American Education
Who's Who Among America's Teachers
National Science Foundation National Needs Postdoctoral Fellowship, 1977

SERVICE TO PROFESSION:

Conferences Organized

Co-organizer, Midwest/Southeast Photosynthesis Conference, Turkey Run, IN, 2017, 2018
Co-organizer, 16th International Congress on Photosynthesis Research, St. Louis, MO, 2013
Co-organizer, Conference on Photosynthetic Light Harvesting Systems, St. Louis, MO, 2013
Co-organizer, Workshop on Cyanobacteria, St. Louis, MO, 2013
Co-organizer, DOE Workshop on Efficiency of Photosynthesis, Albuquerque, NM, 2009

Co-organizer, Conference on Photosynthetic Antennas, Drymen, UK, 2007
Co-organizer, Midwest/Southeast Photosynthesis Conference, Turkey Run, IN, 2007
Co-organizer, Agouron Institute Conference on Oxygen, Santa Fe, NM, 2006
Co-organizer, Conference on Photosynthetic Antennas, Montreal, Canada, 2004
Co-organizer, Astrobiology Science Conference, Tempe, AZ, 2003
Co-organizer, US-Australia Joint Workshop on Artificial Photosynthesis, Sydney, Australia, 2003
Co-organizer, Western Regional Photosynthesis Conference, Asilomar, CA, 2003
Co-organizer, Conference on Photosynthetic Antennas, Queensland, Australia, 2001
Co-organizer, Sauer/Klein Reunion Symposium, Berkeley, CA, 1998
Organizer, US-Japan Symposium on Photosynthetic Antennas, Kona, Hawaii, 1997
Vice Chairman (1990) and Chairman (1991) of Gordon Research Conferences on Photosynthesis
Organizer, First Eastern U.S. Photosynthesis Conference, Woods Hole, MA, 1984

Books and Editorial Service

Author**,** *Molecular Mechanisms of Photosynthesis 4th Edition*, Wiley, Chichester, UK, 2026
Editor, with Matthew Sattley, *Phototrophic Bacteria*, MDPI, Basel, Switzerland, 2022
Guest Editor, special issue on Phototrophic Bacteria, *Microorganisms*, 2022
Author**,** *Molecular Mechanisms of Photosynthesis 3rd Edition*, Wiley, Chichester, UK, 2021
Section Editor, *Encyclopedia of Biological Chemistry, 3rd Ed.,* J. Jez, Editor in Chief*,* Elsevier*,* Amsterdam, The Netherlands, 2019–2021
Associate Editor, *Photosynthesis Research*, 2018–present
Editorial Advisory Board, *Biochemistry*, 2001– 2023
Author**,** *Molecular Mechanisms of Photosynthesis 2nd Edition*, Wiley-Blackwell, Oxford, UK, 2014
Consulting Editor, *Advances in Photosynthesis and Respiration*, 2009–present
Associate Editor, Frontiers in Microbial Physiology and Metabolism, 2011–2017
Author**,** *Molecular Mechanisms of Photosynthesis*, Blackwell Science, Oxford, UK, 2002
Editor, with M. Madigan and C. Bauer, *Anoxygenic Photosynthetic Bacteria*, Kluwer Academic Publishing, Dordrecht, The Netherlands, 1995
Editorial Board, *International Journal of Astrobiology*, 2001–2011
Editorial Board, *Current Chemical Biology*, 2007–2011
Editorial Board, *Biophysical Journal*, 2000–2003
Editor-in-Chief, *Photosynthesis Research*, 1988–1999
Consulting Editor, *Advances in Photosynthesis*, 1991–1998
Editorial Board, *Photosynthesis Research*, 1985–1988

Grant Review Panels

Panel Member, NASA Exobiology Program, 2016
Panel Member, DOE Photosynthetic Systems and Physical Biosciences Programs, 2015
Panel Member, DOE Energy Biosciences Program, 2008
Panel Member, NSF Prokaryotic Molecular Biology Program, 2004–2008
Panel Member, NSF Microbial Genome Sequencing Program, 2005
Panel Manager, USDA Competitive Research Grants, Photosynthesis and Respiration Program, 1996

Panel Member, NASA Exobiology Program, 1994–1998
Panel Member, NSF Molecular Biophysics Program, 1991–1994
Panel Member, DOE Energy Biosciences Program, 1988
Panel Member, NIH Special Study Section Member, Sequencers, etc., 1987
Panel Member, USDA Competitive Research Grants on Photosynthesis, 1985, 1986, 1989

Advisory Service

Scientific Advisory Board, NASA Astrobiology Center for Metal Utilization and Selection Across Eons (MUSE), University of Wisconsin, 2021-present
Scientific Advisory Board, DOE Energy Frontier Research Center for Bioinspired Light-Escalated Chemistry (BioLEC), Princeton University, 2018–2022; Chair 2018–2022
Scientific Advisory Board, DOE Energy Frontier Research Center for Biological Electron Transfer and Catalysis, Montana State University, 2014–2020; Chair 2018-2020
Scientific Advisory Board, Canadian Institute for Advanced Research program in Biology, Energy, Technology, 2014–2018; Chair 2014–2018
Committee of Visitors, Chemical Sciences, Geosciences, and Biosciences (CSGB) Division, DOE Basic Energy Sciences, Subpanel Lead on Photochemistry and Biochemistry, 2017
Associate Investigator, ARC Centre of Excellence for Translational Photosynthesis, Australian National University, Canberra, Australia, 2015–2021
Site Review Team Member, U.S. Department of Energy Solar Photochemistry and Photosynthesis, Argonne National Laboratory, 2013
Council for Chemical and Biochemical Sciences, DOE Basic Energy Sciences, 2008–2015; Chair 2014–2015
Scientific Advisory Board, Centre for Low-Dimensional Chemistry, Univ. of Sheffield, UK, 2012–2015
External Program Review, Louisiana Board of Regents review of nanotechnology at Louisiana Tech University, 2003, 2012
Scientific Advisory Board, Ecosystems and Networks Integrated with Genes and Molecular Assemblies, (ENIGMA), Lawrence Berkeley Lab, 2010–2011
Proposal Review Panel, DOE Center for Integrated Nanotechnologies (CINT), Albuquerque, NM, 2008–2013
Scientific Advisory Board (Chair), Molecular Assemblies Genes, and Genomics Integrated Efficiently (MAGGIE), Lawrence Berkeley Lab, 2008–2009
Committee of Visitors, Chemical Sciences, Geosciences, and Biosciences (CSGB) Division, DOE Basic Energy Sciences, 2008
Scientific Advisory Board, Center for Photochemical Sciences, Bowling Green State University, 2001–2013
External Program Review, University of Washington, Astrobiology Program, 2005
International Scientific Committee for the Symposia on Phototrophic Prokaryotes, Executive Committee, 2000–2009
Director's Division Review Panel Member, Physical Biosciences Division, Lawrence Berkeley Laboratory, 2000
Swedish Natural Science Research Council Expert Committee in Biophysical Chemistry, 1992
Site Review Team Member, Ames Laboratory, Iowa State University, 1989, 1992
Site Review Team Member, Medical Free Electron Laser Program, Office of Naval Research, 1990

On-camera participant and technical consultant for film *Photosynthesis: Life Energy*, produced by the National Geographic Society, 1983

Society Service

President, International Society for Photosynthesis Research, 2001–2004
Executive Committee, International Society for Photosynthesis Research, 1995–2001
Local Arrangements Chairman, Biophysical Society Annual Meeting, Phoenix, AZ, 1988

SOCIETIES:

International Society for Photosynthesis Research
American Association for the Advancement of Science
American Society for Microbiology
American Society of Plant Biologists
American Chemical Society
Biophysical Society
International Society for the Study of the Origin of Life
Union of Concerned Scientists

MENTORING

Cumulative

PhD Degrees Awarded—32
MS Degrees Awarded—22
Postdoctoral Scholars Mentored—34

Amherst College

MS Degrees Awarded (1 Biochemistry and Biophysics, Univ. of Mass)
Postdoctoral Scholars Mentored—2

Arizona State University

PhD Degrees Awarded—19 (15 Chemistry, 2 Molecular and Cellular Biology, 1 Plant Biology, 1 Microbiology)
MS Degrees Awarded—9 (6 Chemistry, 1 Natural Science, 1 Molecular and Cellular Biology, 1 Computational Biosciences)
Postdoctoral Scholars Mentored—16

Washington University

PhD Degrees Awarded—13 (10 Chemistry, 2 Plant and Microbial Biology, 1 Energy, Environment and Chemical Engineering)
MS Degrees Awarded—12 (8 Chemistry, 2 Plant and Microbial Biology, 1 Plant Biology, 1 Energy, Environmental and Chemical Engineering)
Postdoctoral Scholars Mentored—16

TEACHING

Amherst College (1979-1985)

Physical Chemistry 1 & 2 (with lab)
General Chemistry 1 & 2 (with lab)

Chemistry and Society (with lab)

Arizona State University (1985-2006)
General Biochemistry 1 & 2
General Chemistry for Nurses (with Lab)
Honors General Chemistry (with Lab)
Elementary Physical Chemistry
Biophysical Chemistry Lab
Protein Chemistry
Chemistry and Society (with Lab)
Graduate Biophysical Chemistry
Graduate Photosynthesis

Washington University (2007-2019)
General Biochemistry 1
Biochemistry Lab
Bioinorganic Chemistry
Photosynthesis
Matter and Energy (Summer)

UNIVERSITY SERVICE:

Washington University
Biology Department Faculty Search Committee, Chair, 2018-2019
Chemistry Department Faculty Search Committee, 2016-2017
Review Committee, International Center for Advanced Renewable Energy & Sustainability (I-Cares), 2016
Research Working Group, 2015–2019
Advisory Committee, Washington University Prison Education Project, 2014–2015
Division of Biology and Biomedical Sciences Quality Assessment Committee, 2014
Faculty Senate Council, 2013–2016
Faculty Senate Council Advisory Committee on Tenure & Academic Freedom, 2013–2016
Director, Photosynthetic Antenna Research Center (PARC), a DOE Energy Frontier Research Center, 2009–2018
Biology Department Faculty Search Committee, Chair, 2011–2012
Faculty Advisor, Washington University iGEM Team, 2009
College of Arts and Sciences Promotion and Tenure Committee, 2008–2011
I-CARES Faculty Search Committee, 2008–2011
Chemistry Department Faculty Search Committee, 2010–2011
Chemistry Graduate Studies Committee, 2006–2016
Chemistry Department Chair Search Liaison Committee, 2009
Committee on Education of Undergraduates in the Life Sciences, 2008–2010
Biology Department Chair Search Committee, 2008–2009
Biochemistry Faculty Search Committee, Co-Chair, 2007–2008
Biochemistry Program Revision Committee, Chair, 2006–2007
Division of Biological and Biomedical Sciences (DBBS) Graduate Admissions Committee, 2007–2008

Florence Moog Scholarship Selection Committee, 2006–2008
Bio-Energy Faculty Search Committee, 2006–2007

Arizona State University
Chair, Department of Chemistry and Biochemistry, 2002–2006
School of Life Sciences Director Search Committee, 2004–2005
Dean's Strategic Planning and Academic Resources Advisory Council, 2003–2006
Molecular and Cellular Biology Executive Committee, 1994–1996; 1999–2003
Life Science Reorganization Committee, 2002–2003
Goldwater Scholarship Selection Committee, 1999–2006
Interim Director, Cancer Research Institute, 2004
Director, Bio and Molecular Photonics Initiative, 1999–2002
Biomedical Strategic Planning Committee, 1998–2001
ASU Main Campus Strategic Planning Committee, 1998–1999
Research Investigation Committee, Chair, 1998–1999
Founding Director, ASU Center for the Study of Early Events in Photosynthesis, 1988–1991

INVITED LECTURES/CHAIRMANSHIPS (1985-2025)
Keynote Lecture, Gordon Research Seminar on Photosynthesis, Newry, ME, July 26-27, 2025.
Keynote Lecture, Research Literature Competition, Alabama State University, July 18, 2025.
Invited Lecture, Center for Bioenergy and Photosynthesis, Arizona State University, March 21, 2024.
Session Chair, US/Japan Binational Photosynthesis Workshop, Tempe, Arizona, November 6, 2023.
Plenary Lecture, 11th International Conference on Photosynthesis and Hydrogen Energy Research for Sustainability, July 3-9, 2023, Istanbul, Turkey (virtual).
Session Chair, 18th International Congress on Photosynthesis Research, Rotarua, New Zealand, August 3, 2022 (virtual).
Invited Speaker, Class on Molecular Mechanisms of Photosynthesis, University of Tennessee, Knoxville, April 8, 2022 (virtual).
Invited Speaker, Astrobiology Class, University of Arizona, Tucson, AZ, March 24, 2021 (virtual).
Session Chair, Western US Photosynthesis Conference, Tempe, AZ, January 2, 2021 (virtual).
Keynote Lecture, Conference on Solar Energy to Biomass 2020: Optimization of Light Energy Conversion in Plants and Microalgae, Porto, Portugal, February 11-14, 2020.
Session Chair, Conference on Functional Dynamics—Visualizing Molecules in Action, Tempe, AZ, November 6-8, 2019.
Invited Speaker, John Lawrence Seminar Series in Biosciences, Lawrence Berkeley Laboratory, Berkeley, CA, October 1, 2019.
Session Chair and Discussion Leader, Gordon Research Conference on Photosynthesis. Newry, ME, July 21-26, 2019.
Invited Speaker, Carl Sagan Workshop, Caltech, Pasadena, CA, July 15-19, 2019.
Keynote Lecture, 16th International Symposium on Phototrophic Prokaryotes, Vancouver, BC, August 5-8, 2018.

Invited Symposium Speaker, American Chemical Society National Meeting, New Orleans, LA, March 18-22, 2018.

Plenary Lecture, Western US Photosynthesis Conference, Biosphere 2, Oracle, AZ, January 4-7, 2018.

Session Chair and Discussion Leader, Gordon Research Conference on Photosynthesis, Newry, ME, July 16-21, 2017.

Plenary Lecture, 13th International Conference on Tetrapyrrole Photoreceptors of Photosynthetic Organisms, Chicago, IL, July 9-13, 2017.

Plenary Lecture, NASA Astrobiology Science Conference, Mesa, AZ, April 24-28, 2017.

Invited Seminar, Department of Chemical and Physical Sciences, University of Toronto, Missisauga, Toronto, Canada, March 22, 2017.

Invited Seminar, Department of Biology, Duquesne University, Pittsburgh, PA, February 3, 2017.

Invited Seminar, Department of Microbiology, University of Chicago, Chicago, IL, November 3, 2016.

Session Chair/Discussion Leader, 17th International Congress on Photosynthesis Research, Maastrict, The Netherlands, August 7-12, 2016.

Keynote Lecture, International Photosynthetic Light-Harvesting Conference, Egmond aan Zee, The Netherlands, August 4-7, 2016.

Invited Lecture, Gordon Research Conference on Tetrapyrroles, Newport, RI, July 17-22, 2016.

Invited Speaker/Session Organizer, 38th Meeting of the American Society for Photobiology, Tampa, FL, May 21-26, 2016.

Session Chair/Discussion Leader, 12th Workshop on Cyanobacteria, Tempe, AZ May 19-22, 2016.

Invited Speaker, 11th Annual Harvard Plant Biology Symposium, Cambridge, MA, May 2-3, 2016.

Invited Speaker, Pacifichem: The International Chemical Congress of Pacific Basin Societies, Honolulu, HI, December 15-20, 2015.

Award Lecture, American Chemical Society Regional Meeting, St. Joseph, MO, October 22, 2015.

Session Chair/Discussion Leader/Session Organizer, Astrobiology Science Conference, Chicago, IL, June 15-19, 2015.

Invited Speaker, Workshop on Coherent Energy Transport and Optimization in Photosynthesis, Singapore, May 1-3, 2015.

Invited Speaker, Agouron Institute Conference on The Sulfur Cycle, Rancho Palos Verdes, CA October 26-30, 2014.

Keynote Lecture, Michigan State University Plant Research Laboratory Retreat, Kalamazoo, MI, October 19, 2014.

Invited Seminar, Department of Chemistry, University of Missouri, Columbia, MO, October 3, 2014.

Session Chair/Discussion Leader, Gordon Research Conference on Photosynthesis, Mount Snow VT, August 10-15, 2014.

Invited Seminar, Department of Plant and Environmental Sciences, Hebrew University of Jerusalem, Jerusalem, Israel, June 2, 2014.

Schulich Lecture in Chemistry, Technion, Israel Institute of Technology, Haifa, Israel, May 27, 2014.

Invited Seminar, Graduate School of Bioagricultural Sciences, University of Nagoya, Nagoya, Japan, March 28, 2014.

Invited Speaker, 94th Spring Annual Meeting, Chemical Society of Japan, Nagoya, Japan, March 27-30, 2014.

Invited Speaker, 2nd International Symposium of Earth-Life Science Institute, Tokyo, Japan, March 24-26, 2014.

Arnon Lecture, University of California, Berkeley, CA, March 5, 2014.

Invited Seminar, Department of Chemistry, University of California, Davis, CA, February 18, 2014.

Invited Speaker, Workshop on Light-Harvesting Antennas, Toronto, Canada, January 25-26, 2014.

Invited Speaker, Workshop on Neutron Science, San Diego, CA, January 18-20, 2014.

Invited Speaker, Krasnovsky Memorial Symposium, Russian Academy of Sciences, Moscow, Russia, October 10-11, 2013

Invited Lecture, Bakh Institute of Biochemistry, Russian Academy of Sciences, Moscow, Russia, October 9, 2013.

Milkman Lecture, Marine Biology Laboratory, Woods Hole, MA, July 6, 2013.

Invited Lecturer, NASA Astrobiology Summer School, Santander, Spain, June 24-28, 2013.

Invited Speaker, Symposium on Redesigning Photosynthesis – Identifying Opportunities and Novel Ideas, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, May 13-16, 2013.

Plenary Lecture, Eastern US Photosynthesis Conference, Woods Hole, MA, April 12-14, 2013.

Invited Seminar, Department of Chemistry, Oberlin College, Oberlin, OH, April 10, 2013.

Invited Seminar, Danforth Plant Science Center, St. Louis, MO, March 27, 2013.

Invited Seminar, ASU SkySong Center, Arizona State University, Tempe, AZ, February 21, 2013.

Invited Seminar, Department of Chemistry and Biochemistry, Arizona State University, Tempe, AZ, February 21, 2013.

Invited Seminar, Department of Chemistry and Biochemistry, University of Texas, Austin, Austin, TX, February 1, 2013.

Invited Seminar, Department of Biology, University of South Bohemia, Budweis, Czech Republic, December 18, 2012.

Invited Speaker, Birthday Symposium for Rienk van Grondelle, Amsterdam, The Netherlands, December 6-7, 2012.

Invited Seminar, Department of Biology, Queen Mary University of London, London, UK, December 5, 2012.

Invited Speaker, Royal Society Meeting on Bioenergetics and the Major Evolutionary Transitions, Kavli Royal Society Centre, Chicheley Hall, Buckinghamshire, UK, November 14-15, 2012.

Invited Seminar, Department of Chemistry, University of Sheffield, Sheffield, UK, November 22, 2012.

Invited Speaker, European Solar Fuels Meeting, Glasgow, UK, October 29-31, 2012.

Invited Speaker, European Bioenergetics Conference, Freiberg, Germany, September 14-20, 2012.

Invited Speaker, International Society of Microbial Ecology Meeting, Copenhagen, Denmark, August 19-24, 2012.
Invited Symposium Speaker, Protein Society Meeting, San Diego, CA, August 5-6, 2012.
Invited Speaker, Gordon Research Conference on Tetrapyrroles, Newport, RI, July 22-27, 2012.
Invited Speaker, 36th Meeting of the American Society for Photobiology, Toronto, Canada, June 23-27, 2012.
Invited Seminar, Department of Chemistry, Nebraska Wesleyan University, Lincoln, NE, April 26, 2012.
Invited Speaker/Session Organizer, Astrobiology Science Conference, Atlanta, GA, April 16-20, 2012.
Invited Seminar, Department of Microbiology, Southern Illinois University, Carbondale, IL, April 13, 2012.
Invited Speaker, 56th Annual Biophysical Society Meeting, San Diego, CA, February 25-29, 2012.
Invited Speaker, Conference on Solar Fuels, Science, Engineering and Policy, University of North Carolina, Chapel Hill, NC, January 11-12, 2012.
Invited Speaker, NSF Workshop on Algae, Washington, DC, November 21, 2011.
Invited Seminar, Department of Biology, Missouri University of Science and Technology, Rolla, November 14, 2011.
Invited Seminar, Departments of Chemistry and Microbiology, University of British Columbia, Vancouver, BC, Canada, October 13, 2011.
Invited Speaker, American Society for Plant Biology Meeting, Minneapolis, MN, August 10, 2011.
Invited Speaker, International Conference on Photosynthetic Sustainability, Baku, Azerbaijan, July 27, 2011.
Invited Speaker, DOE Conference on Neutron Science, Washington, DC, May 10, 2011.
Invited Speaker, Light Harvesting Conference, Banz, Germany, April 12, 2011.
Invited Seminar, Department of Physics, City University of New York, New York, April 7, 2011.
Invited Seminar, University of Colorado Biophysics Program, March 16, 2011.
Invited Speaker, Biophysical Evening, Washington University in St. Louis, St. Louis, MO, February 8, 2011.
Invited Speaker, Argonne-Northwestern Solar Energy Research Center, Evanston, IL, January 6, 2011.
Invited Speaker, National Astrobiology Institute Workshop on Evolution, Online, November 9, 2010.
Invited Speaker, Workshop on Anaerobic Phototrophic Ecosystems, Ancient and Modern, sponsored by NASA Astrobiology Institute, the Agouron Institute, and the Canadian Institute for Advanced Research, Green Lake, NY, October 12, 2010.
Invited Speaker, Oak Ridge National Laboratory Workshop on Neutron Scattering, September 16, 2010.
Invited Symposium Speaker, 12th International Congress on Photosynthesis, Beijing, China, August 25, 2010.
Invited Symposium Speaker, International Society for Plant Biotechnology Meeting, St. Louis, MO, June 7, 2010.

Invited Lecturer, University of Southern California course on Advanced Microbial Physiology, April 12, 2010.
Invited Seminar, University of Pennsylvania, Department of Biology, April 22, 2010.
Invited Speaker, University of California, Los Angeles, Workshop on Dating Early Events in Earth History, March 18, 2010.
Invited Speaker, Symposium in Honor of Daniel Arnon, Asilomar, CA, January 8, 2010.
Keynote Speaker, Midwest Photosynthesis Conference, Turkey Run, IN, November 13, 2009.
Invited Speaker, Agouron Institute Nitrogen Meeting, Scottsdale, AZ, October 15, 2009.
Invited Seminar, Department of Biology, University of Missouri, St. Louis, October 6, 2009.
Invited Seminar, Department of Physics, Washington University in St. Louis, St. Louis, MO, September 14, 2009.
Invited Symposium Speaker, International Symposium on Phototrophic Prokaryotes, Montreal, CA, August 10, 2009.
Plenary Lecture, International Conference on Tetrapyrrole Photoreceptors of Photosynthetic Organisms, Asilomar, CA, July 27, 2009.
Invited Speaker, DOE Conference on Energy for the 21st Century, Santa Fe, NM, May 20, 2009.
Invited Seminar, Department of Chemistry, Kansas State University, Manhattan, KS, May 13, 2009.
Invited Speaker, Aspen Institute, April 4, 2009.
Invited Speaker, Symposium at Brown University in Honor of Sam Beale, March 27, 2009.
Invited Lecture, Light Harvesting Symposium, Banz, Germany, March 11, 2009.
Invited Lecture, National Association of Biology Teachers Annual Meeting, Memphis, TN, October 16, 2008.
Invited Seminar, School of Biological Sciences, University of Sydney, Sydney, Australia, August 8, 2008.
Invited Seminar, Research School of Biological Sciences, Australian National University, Canberra, Australia, August 6, 2008.
Session Chair and Discussion Leader, Gordon Research Conference on Photosynthesis, South Hadley, MA, June 23, 2008.
Invited Speaker, Gordon Research Conference on Iron-Sulfur Proteins, New London, NH, June 10, 2008.
Invited Speaker, DOE Meeting on Solar Photochemistry, Wintergreen Resort, VA, June 2, 2008.
Invited Seminar, Department of Biology, University of Rochester, Rochester, NY, April 16, 2008.
Ernest C. Pollard Lecture, Department of Molecular Biology and Biochemistry, Penn State University, University Park, PA, April 14, 2008.
Invited Speaker, Conference on Cyanobacteria in the Lunar Environment, NASA Ames, January 28, 2008.
Invited Seminar, Department of Chemistry, Illinois State University, Normal, IL, November 9, 2007.
Plenary Lecture, 14th International Congress on Photosynthesis, Glasgow, UK, July 27, 2007.
Invited Speaker, American Chemical Society Symposium on Solar Energy, St. Louis Science Center, May 29, 2007.

Invited Seminar, Thermal Biology Institute, Montana State University, Bozeman, MT, May 7, 2007

Invited Seminar, Department of Biochemistry, University of Illinois, Urbana-Champaign, Champaign, IL, April 13, 2007.

Invited Seminar, Department of Biological Sciences, Purdue University, West Lafayette, IN, April 6, 2007.

Invited Seminar, Department of Physics, Purdue University, West Lafayette, IN, April 5, 2007.

Invited Speaker, Department of Biochemistry and Biophysics Washington University in St. Louis, St. Louis, MO, April 3, 2007.

Invited Seminars, Departments of Biology and Chemistry, Lafayette College, Easton, PA, March 26, 2007.

Invited Speaker, Conference on Energy Transfer: from the Nanoscale to the Macroscale, sponsored by International Institute for Complex Adaptive Matter, Santa Fe, NM, March 12, 2007.

Invited Symposium Speaker, 15th International Nitrogen Fixation Congress, Cape Town, South Africa, January 25, 2007.

Invited Seminar, Department of Biological Sciences, University of Tennessee, Knoxville, TN, November 1, 2006.

Keynote Speaker, Midwest US Photosynthesis Conference, Turkey Run, IN, October 29, 2006.

Invited Symposium Speaker, International Symposium on Phototrophic Prokaryotes, Pau, France, August 30, 2006.

Session Chair, Discussion Leader and After Dinner Speaker, Gordon Research Conference on Photosynthesis, Smithfield, RI, July 3-7, 2006.

Invited Seminar, Department of Geosciences, CalTech, April 24, 2006.

Invited Speaker, Agouron Institute Oxygen Meeting, Santa Fe, NM, April 6, 2006.

Invited Speaker, Conference on Evolution of Aquatic Photoautotrophs, Rutgers University, January 11, 2006.

Invited Speaker, Western US Photosynthesis Conference, Asilomar, CA, January 8, 2006.

Invited Seminar, Departments of Biology and Chemistry, Washington University in St. Louis, November 29, 2005.

Invited Symposium Speaker, Endosymbiosis Meeting, Hamburg, Germany, October 6, 2005.

Invited Symposium Speaker, American Society of Plant Biology Meeting, Seattle, WA, July 17, 2005.

Invited Symposium Speaker, Molecular Biology and Evolution Conference, Auckland, NZ, June 20, 2005.

Invited Seminar, Department of Chemistry, University of California, Berkeley, December 14, 2004.

Invited Symposium Speaker, American Geophysical Union Conference, San Francisco, CA December 15, 2004.

Invited Seminar, Department of Biology, Indiana University, October 18, 2004.

Invited Speaker, Agouron Geobiology Symposium, Catalina, CA, July 17, 2004.

Invited Symposium Speaker, Chemical Biophysics Symposium, University of Toronto, March 20, 2004.

Invited Seminar, Department of Biology, McMaster University, Canada, March 16, 2004.

Invited Seminar, Department of Biochemistry, Virginia Tech University, Blacksburg, VA October 17, 2003.
Invited Seminar, Department of Biology, Texas A&M University, October 14, 2003.
Invited Plenary Speaker, International Symposium on Phototrophic Prokaryotes, Tokyo, Japan, August 28, 2003.
Invited Speaker, Gordon Research Conference on Photosynthesis, Roger Williams University, Bristol, RI, June 23, 2003.
Invited Seminar, Department of Biology, University of Girona, Spain, June 13, 2003.
Invited Symposium Speaker, American Society for Microbiology Annual Meeting, Washington, DC, May 19, 2003.
Invited Keynote Speaker, Eastern Photosynthesis Conference, Marine Biology Laboratory, Woods Hole, MA, April 11, 2003.
Invited Seminar, Department of Chemistry, University of Connecticut, April 10, 2003.
Session Chair, Gordon Research Conference on Metals in Biology, Ventura, CA, February 3, 2003.
Invited Symposium Speaker, Western Photosynthesis Conference, Asilomar, CA, January 5, 2003.
Invited Seminar, Department of Physics, City University of New York, October 21, 2002.
Invited Symposium Speaker, 151st Ordinary Meeting of the Society for General Microbiology, Loughborough, UK, September 19, 2002.
Invited Symposium Speaker, 17th Biennial Conference on Chemical Education, Bellingham, WA, July 29, 2002.
Invited Symposium Speaker, Novartis Foundation/Royal Society Discussion Meeting on the Molecular Evolution of Photosynthesis and Respiration, London, UK, June 29, 2002.
Invited Discussion Leader, Gordon Research Conference on Photosynthesis, Bryant University, June 17, 2002.
Invited Speaker, Ames Laboratory, Iowa State University, June 7, 2002.
Invited Speaker, Shanghai Institute of Plant Physiology, Chinese Academy of Sciences, Shanghai, China, May 16, 2002.
Invited Speaker, Joint China/UK Symposium on Membrane Proteins, Beijing, China, May 13, 2002.
Invited Symposium Speaker, EMBO Workshop on Green and Heliobacteria, Passau, Germany, April 20, 2002.
Invited Symposium Speaker, 13th Winter Conference of the Inter-American Photochemical Society, Tempe, AZ, January 3, 2002.
Invited Seminar, Department of Chemistry, Princeton University, October 23, 2001.
Invited Plenary Lecturer, 12th International Congress on Photosynthesis, Brisbane, Australia, August 20, 2001.
Invited Speaker, Light Harvesting 2001, Surfer's Paradise, Australia, August 16, 2001.
Invited Speaker and Session Chair, Gerald Babcock Memorial Symposium, Michigan State University, June 1, 2001.
Invited Symposium Speaker, 13th International Congress on Photobiology, San Francisco, CA July 2, 2000.
Invited Session Chair and Discussion Leader, Gordon Research Conference on Photosynthesis, Kimball Union Academy, Meriden, NH, June 19, 2000.
Invited Speaker, W W. Parson Tribute Symposium, Rehovot, Israel, April 18, 2000.

Invited Speaker And Session Chair, 9th Western Photosynthesis Conference, Asilomar, CA, January 7, 2000.

Invited Speaker, Information Exchange Seminar on Photoconversion and Photosynthesis, Okazaki, japan, November 16, 1999.

Invited Speaker, Retirement Symposium for Govindjee, University of Illinois, Urbana-Champaign, October 14, 1999.

Invited Speaker, Yamaguchi University Symposium on Evolutionary Aspects of Photosynthesis, Fairbanks, AK, August 11, 1999.

Invited Seminar, Biochemistry Department, University of Sydney, Sydney, Australia, June 3, 1999.

Invited Seminar, Research School of Biological Sciences, Australian National University, Canberra, Australia, April 27 and April 28, 1999.

Invited Seminar, School of Biological Sciences, University of Sydney, Sydney, Australia, April 23, 1999.

Invited Seminar, Institute of Molecular Biosciences, Massey University, Palmerston North, New Zealand, April 14, 1999.

Invited Seminar, Biological Sciences Department, Macquarie University, Sydney, Australia, March 17, 1999.

Invited Speaker, Gordon Research Conference on Origin of Life, Ventura, CA, February 22, 1999.

Invited Seminars, Department of Chemistry, Ritsumeikan University, Kyoto, Japan, November 15 & 16, 1998.

Invited Speaker, Asian-Pacific Forum on Science and Technology, Japan Advanced Institute of Science and Technology, Ishikawa, Japan, November 11, 1998.

Discussion Leader, XIth International Congress on Photosynthesis, Budapest, Hungary, August 19, 1998.

Invited Speaker, International Workshop on Light-Harvesting Systems, Tata, Hungary, August 15, 1998.

Invited Symposium Speaker, 10th European Bioenergetics Conference, Göteborg, Sweden, June 28, 1998.

Invited Speaker, NASA Workshop on Life: From Local Origins to Global Persistence, New England Conference Center, June 9, 1998.

Invited Symposium Speaker, 98th Annual Conference of American Society of Microbiology, Atlanta, GA, May 18, 1998.

Invited Seminars, Department of Biology Bowling Green State University, March 4 & 5, 1998.

Invited Seminar, Chemistry Department, University of Arizona, February 19, 1998.

Invited Seminar, Chemistry Department, San Diego State University, February 9, 1998.

Invited Speaker and Co-Organizer, Symposium in Honor of Ken Sauer and Mel Klein, University of California, Berkeley, Berkeley, California, January 7, 1998.

Invited Seminar, Biology Department, Odense, University, Odense, Denmark, December 11, 1997.

Invited Speaker, Sixth Symposium on Chemical Evolution and the Origin and Evolution of Life, NASA Ames Research Center, Ames, CA, November 18, 1997.

Invited Speaker and Co-organizer, US/Japan Seminar on Molecular Organization of Photosynthetic Antennas, Kailua-Kona, Hawaii, November 13, 1997.

Session Chair, Gordon Research Conference on Photosynthesis, Plymouth, NH, August 4, 1997.

Invited Symposium Speaker, 213th American Chemical Society National Meeting, San Francisco, CA, April 14, 1997.

Invited Speaker NASA/NSF/DOE Interagency Microbial Extremophiles Meeting, Washington DC, January 21, 1997.

Plenary Lecture, DOE National Renewable Energy Laboratory Conference, Estes Park, CO, February 6, 1996.

Keynote Address, Biophysical Society of the Republic of China Second Annual Symposium on Recent Advances in Biophysics, Kenting, Taiwan, May 6, 1996.

Invited Symposium Speaker, 24th Annual Meeting of the American Society for Photobiology, Atlanta, GA, June 16, 1996.

Invited Symposium Speaker, 212th American Chemical Society National Meeting, Orlando, FL, August 26, 1996

Invited Symposium Speaker, Diversity, Genetics and Physiology of Photosynthetic Prokaryotes, Indiana University, October 19, 1996.

Invited Seminar, PBRTC, Washington State University, October 25, 1996.

Invited Seminar, Department of Chemistry and Biochemistry, University of California, Los Angeles, October 1, 1996.

Invited Seminar, Department of Chemistry, Northern Arizona University, October 27, 1995.

Invited Seminar, Department of Chemistry, Fort Lewis State College, Fort Lewis, CO, October 13, 1995.

Invited Talk, European Science Foundation Workshop on Excitation and Electron Transfer in Homodimeric Reaction Centers of Green Sulfur and Heliobacteria, Montpellier, France, August 26, 1995.

Discussion Leader, 10th International Congress on Photosynthesis, Montpellier, France, August 21, 1995.

Invited Seminar, Department of Biology, Kansas State University, April 17, 1995.

Invited Seminar, Department of Chemistry, California State University, Long Beach, March 22, 1995.

Invited Seminar, Department of Chemistry, California State University, Fullerton, February 16, 1995.

Invited Seminar, Department of Chemistry, California State University, Hayward, February 8, 1995.

Invited Seminar, Department of Biology, Kyoto University, Japan, December 5, 1994.

Invited Symposium Speaker, Symposium on Fe-S Type of Photosynthetic Reaction Centers, Kanazawa, Japan, December 2, 1994.

Invited Seminar, Department of Biology, Tokyo Metropolitan University, Japan, December 1, 1994.

Howard Hughes Medical Institute Distinguished Scholar in Residence, Nebraska Wesleyan University, November 10-11, 1994.

Invited Symposium Speaker and Session Chair, VIII International Symposium on Phototrophic Prokaryotes, Urbino, Italy, September 13, 1994.

Invited Symposium Speaker, 129th Meeting, Society for General Microbiology and Nederlandse Vereniging voor Microbiologie, Noordwijkerhout, The Netherlands, September 10, 1994.

Invited Speaker, Gordon Research Conference on Photosynthesis, Newport, RI, August 25, 1994.

Invited Speaker, Conference of Structure, Function and Biogenesis of Chlorophyll-Protein Complexes: A Symposium in honor of J. Philip Thornber, University of California, Los Angeles, August 4, 1994.

Invited Symposium Speaker and Session Chair, 22nd Annual Meeting, American Society for Photobiology, Scottsdale, AZ, June 26, 1994.

Invited Symposium Speaker, Fifth Exobiology Symposium and Mars Workshop, NASA Ames Research Center, Ames, CA, April 26, 1994.

Invited Overview Talk, Western US Photosynthesis Conference, Asilomar, CA, January 4, 1994.

Invited Symposium Speaker, Second Nordic Conference on Photosynthesis, Oslo, Norway, November 5, 1993.

Invited Symposium Speaker, EMBO Workshop on Green and Heliobacteria, Nyborg, Denmark, August 17, 1993.

Invited Speaker, Gordon Research Conference on Photosynthesis, New Hampton NH, August 3, 1993.

Invited Seminar, Department of Biochemistry, Ohio State University, May 25, 1993.

Invited Speaker, Eastern US Photosynthesis Conference, Woods Hole, MA, April 17, 1993.

Invited Speaker, Western US Photosynthesis Conference, Asilomar, CA, January 13, 1993.

Invited Speaker, Meeting on Evolution of Photosynthetic Systems, Okazaki, Japan, September 6, 1992.

Invited Speaker, Inorganic Biochemistry Summer Workshop, University of Georgia, August 10, 1992.

Invited Symposium Speaker, International Conference on Photosynthetic Antennas, Freising, Germany, March 31, 1992.

Invited Seminar, Department of Biophysics, State University of Leiden, The Netherlands, September 10, 1991.

Invited Seminar, Laboratorium voor Microbiologie, Rijkuniversity Gent, Belgium, September 6, 1991.

Invited Symposium Speaker, Fourth Congress of the European Society for Photobiology, Amsterdam, The Netherlands, September 2, 1991.

Invited Symposium Speaker, VII International Symposium on Photosynthetic Prokaryotes, Amherst, MA, July 22, 1991.

Invited Seminar, Department of Chemistry, University of Kansas, February 1, 1991.

Plenary Lecturer, Workshop on Bioinorganic Chemistry, Indian Institute of Technology, Madras, India, December 10, 1990.

Invited Seminar, Department of Chemistry, Texas Tech University, December 4, 1990.

Invited Speaker, Greater Phoenix Mensa Annual Meeting, Phoenix, AZ, November 24, 1990.

Invited Seminar, Department of Biochemistry, University of Nebraska, October 25, 1990.

Keynote Speaker, Southeast Nebraska Science Educator's Conference, Crete, NE, October 25, 1990.

Invited Seminar, Department of Chemistry, Nebraska Wesleyan University, October 24, 1990.

Invited Speaker, National Academy of Sciences—Academy of Sciences USSR Workshop on Photosynthesis, Woods Hole, MA, September 17, 1990.

Invited Speaker, Conference on Molecular Biology and the Origin of Life, Berkeley, CA, July 23, 1990.

Invited Symposium Speaker, Fourth NASA Symposium on Chemical Evolution and the Origin and Evolution of Life. Ames, CA July 23, 1990.

Invited Symposium Speaker, Joint Soviet-Indian Symposium on Regulation of Photosynthesis, Puschino, USSR, May 21, 1990.

Invited Symposium Speaker, 51st Annual Biology Colloquium, Oregon State University, April 25, 1990.

Invited Lecture, McKnight Foundation, University of Illinois, Urbana-Champaign, March 29, 1990.

Invited Speaker, US/Japan Binational Seminar on structure and Function of Photosynthetic Reaction Centers, Honolulu, HI, March 6, 1990.

Invited Symposium Speaker, VIIth International Congress on Photosynthesis, Stockholm, Sweden, August 7, 1989.

Invited Speaker, Conference on Molecular Models, Origins and Evolution of Photosynthesis, Stockholm, Sweden, August 12, 1989.

Invited Seminar, Department of Chemistry, University of California, Berkeley, April 24, 1989.

Invited Speaker, Third Annual Penn State Symposium in Plant Physiology, Penn State University, May 20, 1988.

Invited Symposium Speaker, 32nd Annual Meeting of the Biophysical Society, Phoenix, AZ March 1, 1988.

Invited Lecture NATO Conference on Structure of Bacterial Reaction Centers, Cadarache, France, September 21, 1987.

Invited Seminar, Department of Biochemistry, University of Arizona, September 11, 1987.

Invited Seminar, Department of Chemistry, University of New Mexico, September 4, 1987.

Invited Lecture, EMBO Workshop on Green and Heliobacteria, Nyborg, Denmark, August 20, 1987.

Invited Speaker, Gordon Research Conference on Photosynthesis, Colby-Sawyer College, NH, July 28, 1987.

Invited Symposium Speaker, 14th Annual Meeting, American Society for Photobiology, Los Angeles, CA, June 23, 1986.

Invited Seminar, RIKEN Institute of Physical and Chemical Research, Wako, Saitama, Japan, June 2, 1986.

Invited Seminar, Department of Biology, Osaka University, Osaka, Japan, May 30, 1986.

Invited Seminar, Department of Biology, Kyushu University, Fukuoka, Japan, May 29, 1986.

Invited Seminar, National Institute for Basic Biology, Okazaki, Japan, May 27, 1986.

Invited Seminar, Department of Biology, University of Tokyo, Tokyo, Japan, May 23, 1986.

Invited Seminar, Department of Chemistry, Tohoku University, Sendai, Japan, May 21, 1986.

Invited Seminar, Department of Chemistry, University of Pittsburgh, March 5, 1986.

Invited Seminar, McKnight Foundation Lecture, University of California, Berkeley, February 6, 1986.

Invited Lecture, Gordon Research Conference on Photosynthesis, New London, NH, July 29, 1985.

Invited Seminar, Department of Biology, Yale University, April 15, 1985.

Invited Seminar, University of Massachusetts, Boston, April 10, 1985.

Invited Lecture, Eastern US Photosynthesis Conference, Woods Hole, MA, March 30, 1985.

CITATION STATISTICS

Google Scholar (January 2026)
https://scholar.google.co.uk/citations?user=nXJkAnAAAAAJ&hl=en

	All	Since 2021
Citations:	46,473	11,017
h-index:	91	43
i10-index:	360	151

Web of Science (January 2026)
https://www-webofscience-com.libproxy.wustl.edu/wos/woscc/citation-report/5fe646e3-f2f0-4771-aee0-2193e7d45a66-e2d163cb

Sum of the Times Cited:	26,595
Sum of Times Cited without self-citations:	24,824
Citing Articles:	16,782
Citing Articles without self-citations:	16,450
Average Citations per Item:	54.84
h-index:	73
Total Entries:	485

Semantic Scholar (January 2026)
https://www.semanticscholar.org/author/Robert-Eugene-Blankenship/144031039

Publications	489
h-index	75
Citations	31,841
Highly influential Citations	1,338

Research Gate (January 2026)
https://www.researchgate.net/profile/Robert-Blankenship

Research Interest Score	16,951
Citations	36,211
h-index	79
Publications	470

Scholar GPS (January 2026)
https://scholargps.com/scholars/38382721184752/robert-e-blankenship

Publications	411
Citations	37,210
h-index	85
Highly Ranked Scholar – Lifetime All	
Overall (All Fields)	#14,266
Antenna (biology)	#2
Photosynthesis	#10
Bacteria	#143

PUBLICATIONS:

B = Book; BR = Book Review; CP = Conference Proceedings; IR = Invited Review; R = Refereed; MM = Multimedia; ‡ = Graduate Student Author (RB advisor); † = Undergraduate Student Author (RB advisor)

451. Blankenship, RE (2026) *Molecular Mechanisms of Photosynthesis, 4th Ed.,* Wiley, Chichester. In press (B)

450. Govindjee G, Björn LO, Blankenship RE (2024) On "P750s" in cyanobacteria: A historical perspective. *Photosynthetica* **62**: 406-408. (R)

449. Yano J, Kern J, Blankenship RE, Messinger J, Yachandra VK (2024) Editorial for the Special Issue 'Energy Conversion Reactions in Natural and Artificial Photosynthesis': A Tribute to Ken Sauer. *Photosynthesis Research* **162**: 101-102. (IR)

448. Yano J, Kern J, Blankenship RE, Messinger J, Yachandra VK (2024) Tribute to Kenneth Sauer (1931-2022) – A mentor, a role-model, and an inspiration to all in the field of photosynthesis. *Photosynthesis Research* **162**: 103-138. (IR)

447. Xin J, Min Z, Yu L, Yuan X, Liu A, Wu W, Zhang X, Ho H, Wu J, Xin Y, Blankenship RE, Tian C, Xu X (2024) Cryo-EM structure of HQNO-bound alternative complex III from the anoxygenic phototrophic bacterium *Chloroflexus aurantiacus. The Plant Cell* **36**: 4212–4233. (R)

446. Xin Y, Xin J, Blankenship R, Xu X, Min Z, Zhang X, Yuan X (2023) Structural basis of carotenoid regulation of quinone diffusion and the *Roseiflexus castenholzii* reaction center-light harvesting complex architecture. *eLife* **12**: e88951. (R)

445. Yu L, Min Z, Liu M, Xin Y, Liu A, Kuang J, Wu W, Wu J, He H, Xin J, Blankenship RE, Tian C, Xu X (2024) A cytochrome *c*-551 mediates the cyclic electron transport chain of anoxygenic phototrophic bacterium *Roseiflexus castenholzii*. *Plant Communications* **5**: 100715. (R)

444. Chen M, Blankenship RE (2023) Modifying the photosystem antenna system to improve light harvesting for photosynthesis in crops. In: *Understanding and Improving Crop Photosynthesis*. R Sharwood, Ed., Burleigh Dodds Publishers, Cambridge, UK, 93-112. (R)

443. Blankenship R and Sattley M, Eds. (2022) *Phototrophic Bacteria,* MDPI Basel. ISBN 978-3-0365-5556-0 (B)

442. Kiang NY, Swingley WD, Gautam G, Broddrick JT, Repeta DJ, Stolz JF, Blankenship RE, Wolf BM‡, Detweiler AM, Miller KA, Schladweiler JJ, Lindemann R, Parenteau, MN (2022) Isolation and characterization of a chlorophyll *d*-containing cyanobacterium from the site of the 1943 discovery of chlorophyll *d. Microorganisms* **10**: 819. (R)

441. Sattley WM, Swingley WD, Burchell BM, Dewey ED, Hayward MK, Renbarger TL, Shaffer KN, Stokes LM, Gurbani SA, Kujawa CM, Nuccio DA, Schladweiler J, Touchman JW, Wang-Otomo Z-Y, Blankenship RE and Madigan MT (2022) Complete genome of the thermophilic purple sulfur bacterium *Thermochromatium tepidum* compared to *Allochromatium vinosum* and other *Chromatiaceae. Photosynthesis Research* **151**: 125–142. (R)

440. Higgins J, Allodi MA, Lloyd LT, Otto JP, Sohail, SH, Saer RG, Wood RE, Massey SC, Ting P-C, Blankenship RE, and Engel GS (2021) Redox conditions correlated with vibronic coupling modulate quantum beats in photosynthetic pigment-protein complexes. *Proceedings of the National Academy of Sciences USA* **118**: e2112817118. (R)

439. Govindjee G and Blankenship RE (2021) Martin David Kamen (1913–2002): Discoverer of Carbon 14, and of new cytochromes in photosynthetic bacteria. *Photosynthesis Research* **149**: 265-273. (R)

438. Blankenship, RE (2021) *Molecular Mechanisms of Photosynthesis, 3rd Ed.,* Wiley, Chichester. ISBN-13: 978-1119800019. (B)

437. Chen M and Blankenship RE (2021) Photosynthesis. In *Encyclopedia of Biological Chemistry, 3rd Ed.*, J Jez, Ed., Elsevier, pp 150-156. (IR)

436. Higgins JS, Lloyd LT, Sohail SH, Allodi MA, Otto JP, Saer RG, Wood RE, Massey SC, Ting P-C, Blankenship RE and Engel GS (2021) Photosynthesis tunes quantum mechanical mixing of electronic and vibrational states to steer exciton energy transfer. *Proceedings of the National Academy of Sciences USA* **118:** e2018240118. (R)

435. Sparks WB, Parenteau MN, Blankenship RE, Germer TA, Patty CHL, Bott KM, Telesco CM and Meadows VS (2021) Spectropolarimetry of primitive phototrophs as global surface biosignatures. *Astrobiology* **21**: 219-234. (R)

434. Liu H, Zhang MM, Weisz DA, Cheng M, Pakrasi HB and Blankenship RE (2021) Structure of cyanobacterial phycobilisome core revealed by structural modeling and chemical cross-linking. *Science Advances* **7**: eaba5743. (R)

433. Sonani RR, Roszak AW, Liu H, Gross ML, Blankenship RE, Madamwar D and Cogdell RJ (2020) Revisiting high resolution crystal structure of *Phormidium rubidum* phycocyanin assisted by using mass spectrometry. *Photosynthesis Research* **144**: 349-360. (R)

432. Shi Y, Xin Y, Wang C, Tang W, Blankenship RE, Sun F and Xu X (2020) 3.3 Å cryo-EM structure of the photosynthetic Alternative Complex III from *Roseiflexus castenholzii* reveals a redox-coupled proton translocation mechanism. *Science Advances* **6**: eaba2739. (R)

431. Dewey ED, Stokes LM, Burchell BM, Shaffer KN, Huntington AM, Baker JM, Nadendla S, Giglio MG, Bender KS, Touchman JW, Blankenship RE, Madigan MT and Sattley WM (2020)

Analysis of the complete genome of the alkaliphilic and phototrophic Firmicute *Heliorestis convoluta* strain HHT. *Microorganisms* **8**: 313. (R)

430. Lou W, Niedzwiedzki DM, Blankenship RE and Liu H (2020) Binding of red form of the orange carotenoid protein to phycobilisome is not sufficient for its function—Evidence of a third state of OCP in cyanobacterial non-photochemical quenching. *Biochimica et Biophysica Acta* **1861**: 148155. (R)

429. Ho M-Y, Niedzwiedzki DM, MacGregor-Chatwin C, Gerstenecker G, Hunter CN, Blankenship RE and Bryant DA (2020) Extensive remodeling of the photosynthetic apparatus alters energy transfer among photosynthetic complexes when cyanobacteria acclimate to far-red light. *Biochimica et Biophysica Acta* **1861**: 148064. (R)

428. Irgen-Gioro S, Gururangan K, Goodson C, Blankenship RE and Harel E (2019) Electronic coherence lifetimes of the Fenna-Matthews-Olson complex and light harvesting complex II. *Chemical Science* **10**: 10503. (R)

427. Jassas M, Goodson C, Blankenship RE, Jankowiak R and Kell A (2019) On excitation energy transfer within the baseplate BChl *a*–CsmA complex of *Chloroflexus aurantiacus. Journal of Physical Chemistry B* **123**: 9786-9791. (R)

426. Liu H and Blankenship RE (2019) On the interface of light-harvesting antenna complexes and reaction centers in oxygenic photosynthesis. *Biochimica et Biophysica Acta* **1860**: 148079. (IR, R)

425. Weisz DA, Johnson VM, Niedzwiedzki DM, Shinn MK, Liu H, Klitzke CF, Gross ML, Blankenship RE, Lohman TM and Pakrasi HB (2019) A novel chlorophyll protein complex in the repair cycle of Photosystem II. *Proceedings of the National Academy of Sciences USA* **116**: 21907-21913. (R)

424. Lou W, Liu H, Wolf BM‡ and Blankenship RE (2019) The role of copper in OCP-related photoprotection in cyanobacteria. *Biochemistry* **58**: 3109-3115. (R)

423. Niedzwiedzki DM, Liu H and Blankenship RE (2019) Excitation energy transfer in intact CpcL-phycobilisome from *Synechocystis* sp PCC. 6803. *Journal of Physical Chemistry B* **123**: 4695-4704. (R)

422. Wolf BM‡ and Blankenship RE (2019) Far-red light acclimation in diverse oxygenic photosynthetic organisms. *Photosynthesis Research* **142**: 349-359. (R)

421. Liu H, Weisz DA, Zhang MM, Cheng M, Zhang B, Zhang H, Gerstenecker GS, Pakrasi HB, Gross ML and Blankenship RE (2019) Phycobilisomes harbor FNRL in cyanobacteria. *mBio* **10**: e00669-19 (R)

420. Niedzwiedzki DM, Wolf, BM‡ and Blankenship RE (2019) Excitation energy transfer in the far-red absorbing violaxanthin/vaucheriaxanthin chlorophyll *a* complex from the Eustigmatophyte Alga FP5. *Photosynthesis Research* **140**: 337-354. (R)

419. Lu X, Selvaraj B, Ghimire-Rijal S, Orf GS‡, Blankenship RE, Meilleur F, Cuneo MJ and Myles DAA (2019) Neutron and X-ray analysis of the Fenna-Matthews-Olson photosynthetic antenna complex from *Prosthecochloris aestuarii*. *Acta Crystallographica F* **71:** 171-175. (R)

418. Squires AH, Dahlberg PD, Magdaong NCM, Liu H, Blankenship RE and Moerner WE (2019) Identification of two distinct binding sites for Orange Carotenoid Protein on the phycobilisome by single-molecule trapping and spectroscopy. *Nature Communications* **10**: 1172. (R)

417. Niedzwiedzki DM, Bar-Zvi S, Blankenship RE and Adir N (2019) Excitation energy migration in phycobilisomes from the cyanobacterium *Acaryochloris marina*. *Biochimica et Biophysica Acta* **1860**: 286-296. (R)

416. Saer RG, Schultz R† and Blankenship RE (2019) The influence of quaternary structure on the stability of Fenna-Matthews-Olson (FMO) antenna complexes. *Photosynthesis Research* **140**: 39-49. (R)

415. Govindjee and Blankenship RE (2018) Martin D. Kamen, Whose Discovery of ^{14}C Changed Plant Biology as Well as Archaeology. *Plantae* https://community.plantae.org/files/posts/5111819907712942423/86e85933e3d0324e0f7045c0fcd6b35c_Martin%20D.%20Kamen.pdf. (MM)

414. Magdaong NCM, Niedzwiedzki DM, Saer RG, Goodson C and Blankenship RE (2018) Excitation energy transfer kinetics and efficiency in phototrophic green sulfur bacteria. *Biochimica et Biophysica Acta* **1859**: 1180-1190. (R)

413. Shah VB, Ferris C, Orf G‡, Kavadiya S, Ray J, Jun Y-S, Lee B, Blankenship RE and Biswas P (2018) Supramolecular self-assembly of bacteriochlorophyll *c* molecules in aerosolized droplets to synthesize biomimetic chlorosomes. *Journal of Photochemistry and Photobiology B* **185**: 161-168. (R)

412. Niedzwiedzki DM and Blankenship RE (2018) Excited-state properties of the central-*cis* isomer of the carotenoid peridinin. *Archives of Biochemistry and Biophysics* **649**: 29-36. (R)

411. Niedzwiedzki DM, Gardiner AT, Blankenship RE and Cogdell RJ (2018) Energy transfer in purple bacterial photosynthetic units from cells grown in various light intensities. *Photosynthesis Research* **137**: 389-402. (R)

410. Bar-Zvi S, Lahav A, Harris D, Niedzwiedzki DM, Blankenship RE and Adir N (2018) Structural heterogeneity leads to functional homogeneity in *A. marina* phycocyanin. *Biochimica et Biophysica Acta* **1859**: 544-553. (R)

409. Lu Y‡, Goodson C, Blankenship RE and Gross ML (2018) Primary and higher order structure of the reaction center from the purple phototrophic bacterium *Blastochloris viridis:* A test for native mass spectrometry. *Journal of Proteome Research* **17**: 1615- 1623. (R)

408. Khmelnitskiy A, Saer R, Blankenship RE and Jankowiak R (2018) On the excitonic energy landscape of the Y16F mutant of the *Chlorobium tepidum* FMO complex: High-resolution spectroscopic and modeling studies. *Journal of Physical Chemistry B* 122: 3734-3743. (R)

407. Tang JK-H and Blankenship RE (2018) Photosynthetic Electron Transport. *Enclyclopedia of Biophysics, 2nd Ed.,* G. C. K Roberts, Ed., Springer, The Netherlands. (IR)

406. Xin Y, Shi Y, Niu T, Wang Q, Niu W, Huang X, Ding W, Yang L, Blankenship RE, Xu X and Sun F (2018) Cryo-EM structure of the RC-LH core complex from an early branching photosynthetic prokaryote. *Nature Communications* **9**: 1568. (R)

405. Stadnytskyi, V, Orf GS‡, Bankenship RE and Savikhin S (2018) Shot-noise limited time-resolved circular dichroism pump-probe spectrometer. *Review of Scientific Instruments* **89**: 033184. (R)

404. Blankenship RE, Brune DC and Olson J (2018) Remembering John M. Olson (1929-2017). *Photosynthesis Research* **137**: 161-169. (IR)

403. Ogren JI, Tong AL, Gordon SC, Chenu A, Lu Y‡, Blankenship RE, Cao J and Schlau-Cohen GS (2018) Impact of the lipid bilayer membrane on energy transfer kinetics in the photosynthetic protein LH2. *Chemical Science* **9**: 3095-3104. (R)

402. Magdaong NCM and Blankenship RE (2018) Photoprotective excited state quenching mechanisms in diverse photosynthetic organisms. *Journal of Biological Chemistry* **293**: 5018-5025. (R, IR)

401. Allodi MA, Otto JP, Sohail SH, Saer RG, Wood RE, Rolczynski BS, Massey SC, Ting P-C, Blankenship RE and Engel GS (2018) Reactive oxygen species affect ultrafast exciton transport in photosynthetic pigment-protein complexes. *Journal of Physical Chemistry Letters* **9**: 89–95. (R)

400. Hernandez-Prieto MA, Postier B, Blankenship RE and Chen M (2018) Far-red light promotes biofilm formation but not chlorophyll *d* biosynthesis in the cyanobacterium *Acaryochloris marina*. *Environmental Microbiology* **20**: 535–545. (R)

399. Maiuri M, Ostroumov EE, Saer RG, Blankenship RE and Scholes GD (2018) Coherent wavepackets in the FMO complex are robust to excitonic-structure perturbations by mutagenesis. *Nature Chemistry* **10**: 177-183. (R)

398. Chen M and Blankenship RE (2018) Pigments: general properties and biosynthesis. In: *Light Harvesting in Photosynthesis*. Roberta Croce; Rienk van Grondelle; Herbert van Amerongen; Ivo van Stokkum, Eds. CRC Press, Boca Raton, FL, pp 3-20. (IR)

397. Liu H, Lu Y[‡], Wolf BM[‡], Saer R, Orf GS[‡], King JD[‡] and Blankenship RE (2018) Photoactivation and relaxation studies on the cyanobacterial OCP in the presence of copper ion. *Photosynthesis Research* **135**: 143-147. (R)

396. Wolf BM[‡], Magdaong NM, Roth R, Goodenough U and Blankenship RE (2018) Characterization of a newly isolated freshwater Eustigmatophyte alga capable of utilizing far-red light as its sole light source. *Photosynthesis Research* **135**: 177-189. (R)

395. Khmelnitskiy A, Kell A, Reinot T, Saer RG, Blankenship RE and Jankowiak R (2018) Energy landscape of the intact and destabilized FMO antennas from *C. tepidum* and the L122Q mutant: Low temperature spectroscopy and modeling study. *Biochimica et Biophysica Acta* **1859**: 165-173. (R)

394. Majumder EL-W[‡], Wolf BM[‡], Liu H, Berg RH, Timlin JA, Chen M and Blankenship RE (2017) Subcellular pigment distribution is altered under far red light acclimation in cyanobacteria that contain chlorophyll *f***.** *Photosynthesis Research* **134**: 183-192. (R)

393. Valleau S, Stüder R, Häse F, Kreisbeck C, Saer R, Blankenship RE, Shaknovicha E and Aspuru-Guzik A (2017) Evolutionary study and ancestral reconstruction of the Fenna-Matthews-Olson complex. *ACS Central Science* **3**: 1086-1095. (R)

392. Niedzwiedzki DM, Swainsbury DJK, Martin EC, Hunter CN and Blankenship RE (2017) Investigating the nature of the S*-excited state feature of carotenoids in light harvesting complex 1 from purple photosynthetic bacteria. *Journal of Physical Chemistry B* **121**: 7571-7585. (R)

391. Orf GS[‡], Collins AM[‡], Niedzwiedzki DM, Tank M, Thiel V, Kell A, Bryant DA, Montaño G and Blankenship RE (2017) Polymer-chlorosome nanocomposites consisting of nonnative combinations of self-assembling bacteriochlorophyll. *Langmuir* **33**: 6427-6438. (R)

390. Saer R and Blankenship RE (2017) Light-harvesting in phototrophic bacteria: structure and function. *Biochemical Journal* **474**: 2107-2131. (R, IR)

389. Blankenship RE (2017) How cyanobacteria went green. *Science* **355**: 1372-1373. (IR)

388. Lu Y[‡], Liu H, Saer R, Li VL[†], Zhang H, Shi L, Goodson C, Gross ML and Blankenship RE (2017) A molecular mechanism for non-photochemical quenching in cyanobacteria. *Biochemistry* **56**: 2812-2823. (R)

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B = Book; BR = Book Review; CP = Conference Proceedings; IR = Invited Review; R = Refereed; MM = Multimedia; ‡ = Graduate Student Author (RB advisor); † = Undergraduate Student Author (RB advisor)