



Kevin Arrigo

Donald and Donald M. Steel Professor of Earth Sciences and Senior Fellow at the Woods Institute for the Environment
Earth System Science

Bio

BIO

Kevin Arrigo received his B.S in Natural Resources from the University of Michigan in 1983. After working for the Michigan Department of Natural Resources, he attended the University of Southern California where he earned his Ph.D. in Biological Sciences in 1992. He went on to a postdoctoral position at the NASA Goddard Space Flight Center and became a civil servant there in 1995. In 1999, he joined the Stanford University faculty as an Assistant Professor in the Department of Geophysics, where he stayed until 2007 when he joined the Department of Environmental Earth System Science. Arrigo served as director of the interdisciplinary Graduate Program in Earth, Energy, and Environmental Sciences from 2005-2013. In 2012, he became co-director of the Earth Systems Program within the School of Earth Sciences. He has served on a number of university committees, including the Committee on Academic Computing and Information Services (2010-2012), Committee for the Review of Undergraduate Majors (2010-2013), and the Bing Overseas Studies Faculty Oversight Committee (2011-present). As a biological oceanographer, his principal interest has been in the role marine microalgae play in modulating the cycling of carbon and nitrogen, with particular emphasis on the scales of temporal and spatial variability of biological productivity in polar oceans. This knowledge is essential to understanding how anthropogenic and atmospheric forcing controls the biogenic flux of carbon dioxide into the oceans, and ultimately, to the sediments. His research is highly interdisciplinary and incorporates three fundamental approaches, (1) satellite remote sensing, (2) ecophysiological modeling, and (3) laboratory and field studies. By combining these techniques, it is possible to address many complex aspects of ocean biogeochemistry at spatial and temporal scales that would not be possible using a single approach

ACADEMIC APPOINTMENTS

- Professor, Earth System Science
- Senior Fellow, Stanford Woods Institute for the Environment
- Member, Bio-X
- Affiliate, Stanford Woods Institute for the Environment

ADMINISTRATIVE APPOINTMENTS

- Fisheries Biologist, Department of Natural Resources, State of Michigan, (1984-1986)
- Teaching Assistant, Department of Biological Sciences, University of Southern California, (1986-1991)
- Research Assistant, Department of Biological Sciences, University of Southern California, (1987-1992)
- Resident Research Assistant, NASA Goddard Space Flight Center, (1992-1994)
- Adjunct Assistant Professor MEES, Horn Point Environmental Laboratory, University of Maryland, (1993-1999)
- Assistant Research Professor Dept. of Meteorology, University of Maryland, (1994-1995)
- Adjunct Assistant Professor Dept. of Meteorology, University of Maryland, (1994-1999)

- Oceanographer, NASA Goddard Space Flight Center, (1995-1999)
- Assistant Professor of Geophysics, Stanford University, (1999-2004)
- Associate Professor of Geophysics, Stanford University, (2004-2007)
- Director, Graduate Program in Earth, Energy, and Environmental Sciences, School of Earth Sciences, Stanford University, (2005-2010)
- Associate Chair, Department of Environmental Earth System Science, Stanford University, (2007- present)
- Associate Professor, Department of Environmental Earth System Science, Stanford University, (2007-2009)
- Professor, Department of Environmental Earth System Science, Stanford University, (2009- present)

HONORS AND AWARDS

- Competitive Scholarship, Oakland University (1977 - 1979)
- Competitive Scholarship, State of Michigan (1980 - 1983)
- Cum Laude, University of Michigan (1983)
- Outstanding Teaching Assistant Award, University of Southern California (1987 - 1991)
- Antarctic Service Medal, National Science Foundation (1988 - 1989)
- ARCS Fellowship, University of Southern California (1990 - 1992)
- Global Change Distinguished Postdoctoral Fellowship, United States Department of Energy (1992 - 1994)
- Peer Award for Outstanding Publication, NASA GSFC, Laboratory for Hydrospheric Processes (1995)
- Performance Award, NASA Goddard Space Flight Center (1995)
- Special Act Award, NASA Goddard Space Flight Center (1995)
- Quality Increase Award, NASA Goddard Space Flight Center (1996)
- Special Act Award, NASA Goddard Space Flight Center (1997)
- Frederick E. Terman Fellowship Award, School of Earth Sciences, Stanford University (1999-2002)
- Chair, Gordon Research Conference on Polar Marine Science, Gordon Research Conference (2007)
- School of Earth Sciences Excellence in Teaching Award, Stanford University (2008)
- Aldo Leopold Leadership Fellowship, Woods Institute for the Environment, Stanford University (2009)
- Gerhard Caspar University Fellow in Undergraduate Education, Stanford University (2011-2016)
- Group Achievement Award for ICESCAPE, NASA (2012)
- Donald & Donald M. Steel Professor in Earth Sciences, Stanford University (2013-present)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Director, Earth Systems Program, Stanford University (2015 - present)
- Associate Editor, Journal of Geophysical Research - Biogeochemistry (2012 - present)
- Co-Director, Earth Systems Program, School of Earth Sciences, Stanford University (2012 - 2015)
- Aldo Leopold Leadership Program Committee, Stanford University (2011 - present)
- Bing Overseas Studies Program, Faculty Oversight Committee, Stanford University (2011 - present)
- Advisory Board, Alliance for Climate Education (2010 - present)
- Committee for the Review of Undergraduate majors (C-RUM), Stanford University (2010 - 2013)
- Faculty of 1000, Contributing Member, Ecosystem Ecology (2010 - 2013)
- Committee on Academic Computing and Information Services (C-ACIS), Stanford University (2010 - 2011)
- E-IPER Reauthorization Review Committee, Stanford University (2010 - 2010)

- Environmental Ventures Project, Woods Institute for the Environment, Review Committee, Stanford University (2009 - 2012)
- Invited Speaker, Recent changes in Arctic Ocean Primary Production. Gordon Research Conference on Polar Marine Science, Lucca (Barga), Italy, March 15-20, Gordon Research Conference (2009 - 2009)
- Invited Speaker, University of California Santa Cruz, 19 January 2009, University of California Santa Cruz (2009 - 2009)
- Invited Speaker, Using remote sensing to monitor oceans and ice. Southern Ocean Sentinel program, Hobart, Tasmania (Australia), April 20-25, Southern Ocean Sentinel program (2009 - 2009)
- Board of Governors, Alternate, Ocean Leadership (2008 - present)
- Center for Ocean Solutions Early Career Fellowship, Selection Committee, Stanford University (2008 - present)
- Review Editor, Aquatic Biology (2008 - present)
- Earth Systems Undergraduate Curriculum Committee, Stanford University (2008 - 2012)
- Library Committee, School of Earth Sciences, Stanford University (2008 - 2012)
- Advisory Committee for Educational Outreach, School of Earth Sciences, Stanford University (2008 - 2011)
- Branner Library Space Committee, School of Earth Sciences, Stanford University (2008 - 2010)
- Chair, School of Earth Sciences Faculty Search Committee, Marine Chemist/Geochemist, Stanford University (2008 - 2010)
- School of Earth Sciences Faculty Search Committee, Climate scientist, Stanford University (2008 - 2009)
- Invited Speaker, Changes in Arctic Ocean primary production, 1998-2008, Arctic Change 2008, Quebec City, Quebec, Canada, December 9-12, Arctic Change 2008 (2008 - 2008)
- Associate Chair, Department of Environmental Earth System Science, Stanford University (2007 - present)
- Oceans Working Group, Canadian Institute for Advanced Research (CIFAR) (2007 - 2009)
- Chair, Gordon Research Conference on Polar Marine Science, Ventura, CA, March 25-30, Gordon Research Conference (2007 - 2007)
- Invited Speaker, C.B. van Niel Lecture, Hopkins Marine Station, Stanford University, April 6, Hopkins Marine Station, Stanford University (2007 - 2007)
- Invited Speaker, Duke University, 12 January, Duke University (2007 - 2007)
- Invited Speaker, Nicholas School Marine Laboratory, Duke University, 1 May, Duke University (2007 - 2007)
- Editorial Board, Annual Reviews of Marine Science (2006 - 2012)
- Chair, School of Earth Sciences Faculty Search Committee, Physical Oceanographer, Stanford University (2006 - 2007)
- Committee for School of Earth Sciences Reorganization, Stanford University (2006 - 2007)
- Invited Participant, SCOR Workshop on Anthropogenic Nitrogen Impacts on the Open Ocean, Norwich, UK, 16-20 November, Scientific Committee on Oceanic Research (2006 - 2006)
- Working Group for Carbon Research, IMBER/SOLAS (2005 - 2011)
- Director, Graduate Program in Earth, Energy, and Environmental Sciences, Stanford University (2005 - 2010)
- CEES Faculty Advisory Board, Stanford University (2005 - 2009)
- Understanding Change Panel (UCP), Study of Environmental Arctic Change (SEARCH) (2005 - 2008)
- School of Earth Sciences Faculty Search Committee, Climate scientist, Stanford University (2005 - 2007)
- Appointment Committee, Suki Hoagland-Senior Lecturer in IPER, Stanford University (2005 - 2005)
- Geological and Environmental Sciences Faculty Search Committee, Paleobiology, Stanford University (2005 - 2005)
- Invited Speaker, Oregon State University, 7 December, Oregon State University (2005 - 2005)
- Vice-Chair, Gordon Research Conference on Polar Marine Science, Gordon Research Conference (2005 - 2005)
- School of Earth Sciences Council, Stanford University (2004 - 2010)
- Board of Governors, Alternate, Ocean Leadership (2004 - 2008)
- Chair, School of Earth Sciences Ph.D/M.S. Academic Programs Committee, Stanford University (2004 - 2005)
- Geophysics Faculty Search Committee, Computational Global Seismology, Stanford University (2004 - 2005)

- Invited Speaker, Oregon State University, December 2, Oregon State University (2004 - 2004)
- Member, The Bering Sea Ecological Study (BEST) Committee, National Science Foundation (2003 - 2006)
- Carnegie Institute of Washington, Global Ecology/Oceanographer Search Committee, Stanford University (2003 - 2005)
- Committee on A Science Plan for the North Pacific Research Board, National Research Council of the National Academies (2003 - 2005)
- Member, Committee on A Science Plan for the North Pacific Research Board, National Research Council of the National Academies (2003 - 2005)
- Planning committee for the Bering Sea Ecological Study (BEST), National Science Foundation (2003 - 2005)
- Geophysics Faculty Pre-Search Committee, Stanford University (2003 - 2004)
- School of Earth Sciences Academic Programs Committee, Stanford University (2003 - 2004)
- Invited Speaker, Aquatic Sciences Meeting, Salt Lake City, American Society of Limnology and Oceanography (2003 - 2003)
- Invited Speaker, EGS-AGU-EUG Joint Assembly, Nice, France, EGS-AGU-EUG (2003 - 2003)
- Invited Speaker, Gordon Research Conference on Polar Marine Science, Ventura, California, Gordon Research Conference (2003 - 2003)
- Invited Speaker, The Bering Sea Ecological Study (BEST) Workshop, Seattle, Washington, The Bering Sea Ecological Study (BEST) (2003 - 2003)
- Invited Speaker, The Royal Society (The Role of the Southern Ocean in Global Processes: An Earth System Science Approach), London, The Royal Society (2003 - 2003)
- Invited Speaker, University of Southern California, Los Angeles, CA, January 28, University of Southern California (2003 - 2003)
- Faculty Liaison, The Australia Program, Overseas Studies Program, Stanford University (2002 - present)
- Earth Systems Executive Committee, Stanford University (2002 - 2012)
- Academic Advisor for Sophomores, Stanford University (2002 - 2009)
- Editor, Oceanography of the Ross Sea, Antarctic Science (2002 - 2002)
- Invited Speaker, Hopkins Marine Station, Stanford University, January 25, Hopkins Marine Station, Stanford University (2002 - 2002)
- Invited Speaker, United States Geological Survey, Menlo Park, CA, December, United States Geological Survey (2002 - 2002)
- Invited Speaker, University of California, Irvine, April 19, University of California, Irvine (2002 - 2002)
- Invited Speaker, University of California, Santa Barbara, March 12, University of California, Santa Barbara (2002 - 2002)
- Academic Advisor for Freshmen, Stanford University (2001 - 2008)
- Interdisciplinary Graduate Program In Environment and Resource (IPER) Advisory Council, Stanford University (2001 - 2008)
- Stanford's Environmental Initiative, Stanford University (2001 - 2004)
- Invited Speaker, International Polynya Symposium 2001, Polynyas in Changing Polar Seas, International Polynya Symposium 2001 (2001 - 2001)
- Invited Speaker, Romberg Tiburon Center, San Francisco State University (2001 - 2001)
- Panel on Biocomplexity in the Environment/Instrumentation Development for Environmental Activities, National Science Foundation (2001 - 2001)
- Chair, Department of Geophysics Teaching & Technology Committee, Stanford University (2000 - 2007)
- Ad-hoc Committee for Interdisciplinary Environmental Studies, Stanford University (2000 - 2005)
- Curriculum Committee, Geophysics Dept., Stanford University (2000 - 2004)
- Strategic Planning Committee, Geophysics Dept., Stanford University (2000 - 2004)
- Technology and Teaching Committee, Geophysics Dept., Stanford University (2000 - 2004)
- Faculty/Staff Development Committee, Geophysics Dept., Stanford University (2000 - 2003)
- Member, AGU Committee on Statutes and Bylaws, American Geophysical Union (2000 - 2003)
- Invited speaker, UC Santa Cruz (2000 - 2000)
- Member, DOE Panel on Ocean Carbon Sequestration Research, Department of Energy (2000 - 2000)
- Invited speaker, Gordon Research Conference (1998 - 1998)
- Council of Fellows, Joint Center for Earth System Science, Dept. of Meteorology, University of Maryland (1997 - 1997)

- Editor, Vol. 73, Antarctic Research Series (1997 - 1997)
- Invited speaker, NASA Goddard Space Flight Center (1997 - 1997)
- NASA Earth Science Vision team, NASA (1997 - 1997)
- Visiting Senior Scientist Search Committee, Laboratory for Hydrospheric Processes, NASA (1997 - 1997)

PROFESSIONAL EDUCATION

- Ph.D., University of Southern California , Biology (1992)
- B.S., University of Michigan , Natural Resources (1983)

LINKS

- Ocean Biogeochemistry Group: <http://ocean.stanford.edu/>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Research

My students and I use a combination of laboratory and field studies, remote sensing, and computer modeling techniques to understand phytoplankton dynamics in regions ranging from the Southern Ocean to the Red Sea. In particular, we are interested in the role these organisms play in regulating the uptake of atmospheric carbon dioxide by the ocean, as well as in how they help structure marine ecosystems. We work with colleagues in fields as diverse as molecular biology, glaciology, and physical oceanography to develop a comprehensive understanding of how these ecosystems operate and how they may respond to environmental changes--past, present, and future.

Teaching

I teach courses for graduate and undergraduate students on ocean biogeochemistry, global environmental change, satellite remote sensing, numerical ecosystem modeling, and biological oceanography. I also co-teach a field course on coral reef ecology as part of Stanford's Overseas Studies Program in Australia.

Professional Activities

Chair, Gordon Research Conference on Polar Marine Science, 2007; Editorial Board, Annual Reviews, 2006-present; IMBER/SOLAS Working Group for Carbon Research, 2005-present; Board of Governors, Alternate, Joint Oceanographic Institutions, 2004-present; Vice-Chair, Gordon Research Conference on Polar Marine Science, 2005; Member, Bering Sea Ecological Study (BEST) Committee, National Science Foundation, March 2003-present; Member, Committee on A Science Plan for the North Pacific Research Board, National Research Council of the National Academies, 2003-2005; Editor, Ross Sea Oceanography, Antarctic Science, Volume 15, 2003

PROJECTS

- Research Project - Stanford University
- Research Project - Stanford University

Teaching

COURSES

2025-26

- Biological Oceanography: EARTHSYS 151, EARTHSYS 251, ESS 151, ESS 251 (Aut)
- Remote Sensing of the Oceans: EARTHSYS 141, EARTHSYS 241, ESS 141, ESS 241, GEOPHYS 141 (Win)

2024-25

- Introduction to Earth Systems: EARTHSYS 10 (Aut)

2023-24

- Biological Oceanography: EARTHSYS 151, EARTHSYS 251, ESS 151, ESS 251 (Spr)
- Introduction to Earth Systems: EARTHSYS 10 (Aut)
- Remote Sensing of the Oceans: EARTHSYS 141, EARTHSYS 241, ESS 141, ESS 241 (Win)
- The Oceans: An Introduction to the Marine Environment: EARTHSYS 8, ESS 8 (Spr)

2022-23

- Biological Oceanography: EARTHSYS 151, EARTHSYS 251, ESS 151, ESS 251 (Spr)
- Coral Reef Ecosystems: OSPAU STL 10 (Aut)
- Introduction to Earth Systems: EARTHSYS 10 (Aut)
- Marine Ecosystem Modeling: ESS 244 (Win)
- Remote Sensing of the Oceans: EARTHSYS 141, EARTHSYS 241, ESS 141, ESS 241, GEOPHYS 141 (Win)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Stephanie Lim

Doctoral Dissertation Advisor (AC)

Claudette Proctor

Doctoral (Program)

James Lauer, Claudette Proctor

Publications

PUBLICATIONS

- **Southern Ocean net primary production influenced by seismically modulated hydrothermal iron** *NATURE GEOSCIENCE*
Schine, C. M. S., Lund Snee, J., Lyford, A., Van Dijken, G., Arrigo, K. R.
2025
- **Monitoring Harmful Algal Blooms in the Southern California Current Using Satellite Ocean Color and In Situ Data** *JOURNAL OF MARINE SCIENCE AND ENGINEERING*
Lee, M., Arrigo, K., Smith, A., Woodson, C., Lee, J., Micheli, F.
2025; 13 (11)
- **Genome-resolved biogeography of Phaeocystales, cosmopolitan bloom-forming algae.** *Nature communications*
Füßy, Z., Lampe, R. H., Arrigo, K. R., Barry, K., Brisbin, M. M., Brussaard, C. P., Decelle, J., de Vargas, C., DiTullio, G. R., Elbourne, L. D., Frischer, M. E., Goodstein, D. M., Grigoriev, et al
2025; 16 (1): 8559
- **Ice gliding diatoms establish record-low temperature limits for motility in a eukaryotic cell.** *Proceedings of the National Academy of Sciences of the United States of America*
Zhang, Q., Leng, H. T., Li, H., Arrigo, K. R., Prakash, M.
2025; 122 (37): e2423725122
- **Observation-Based Estimate of Net Community Production in Antarctic Sea Ice** *GEOPHYSICAL RESEARCH LETTERS*
Dalman, L. A., Meiners, K. M., Thomas, D. N., Deman, F., Bestley, S., Moreau, S., Arrigo, K. R., Campbell, K., Corkill, M., Cozzi, S., Delille, B., Fransson, A., Fraser, et al
2025; 52 (7)

- **Unveiling the contribution of particle-associated non-cyanobacterial diazotrophs to N₂ fixation in the upper mesopelagic North Pacific Gyre.** *Communications biology*
Reeder, C. F., Filella, A., Voznyuk, A., Coët, A., James, R. C., Rohrer, T., White, A. E., Berline, L., Grosso, O., van Dijken, G., Arrigo, K. R., Mills, M. M., Turk-Kubo, et al
2025; 8 (1): 287
- **Vertical Carbon Export During a Phytoplankton Bloom in the Chukchi Sea: Physical Setting and Frontal Subduction** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Pickart, R. S., Spall, M. A., Bahr, F., Lago, L., Lin, P., Pacini, A., Mills, M., Huang, J., Arrigo, K. R., van Dijken, G., Mcraven, L. T., Roberts, S.
2024; 129 (11)
- **Response of indicator species to changes in food web and ocean dynamics of the Ross Sea, Antarctica** *ANTARCTIC SCIENCE*
Ainley, D. G., Morandini, V., Salas, L., Nur, N., Rotella, J., Barton, K., Lyver, P., Goetz, K. T., Larue, M., Foster-Dyer, R., Parkinson, C. L., Arrigo, K. R., Van Dijken, et al
2024
- **The role of biota in the Southern Ocean carbon cycle (vol 5, pg 390, 2024)** *NATURE REVIEWS EARTH & ENVIRONMENT*
Boyd, P. W., Arrigo, K. R., Ardyna, M., Halfter, S., Huckstadt, L., Kuhn, A. M., Lannuzel, D., Neukermans, G., Novaglio, C., Shadwick, E. H., Swart, S., Thomalla, S. J.
2024
- **The Arctic Ocean Nitrogen Cycle** *JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES*
Arrigo, K. R., Mills, M. M., Juranek, L. W.
2024; 129 (7)
- **The role of biota in the Southern Ocean carbon cycle** *NATURE REVIEWS EARTH & ENVIRONMENT*
Boyd, P. W., Arrigo, K. R., Ardyna, M., Halfter, S., Huckstadt, L., Kuhn, A. M., Lannuzel, D., Neukermans, G., Novaglio, C., Shadwick, E. H., Swart, S., Thomalla, S. J.
2024
- **Pan-Arctic analysis of the frequency of under-ice and marginal ice zone phytoplankton blooms, 2003-2021** *ELEMENTA-SCIENCE OF THE ANTHROPOCENE*
Payne, C. M., van Dijken, G. L., Arrigo, K. R.
2024; 12 (1)
- **The Pacific water flow branches in the eastern Chukchi Sea** *PROGRESS IN OCEANOGRAPHY*
Pickart, R. S., Lin, P., Bahr, F., Mcraven, L. T., Huang, J., Pacini, A., Arrigo, K. R., Ashjian, C. J., Berchok, C., Baumgartner, M. F., Cho, K., Cooper, L. W., Danielson, et al
2023; 219
- **Macronutrient biogeochemistry in Antarctic land-fast sea ice: Insights from a circumpolar data compilation** *MARINE CHEMISTRY*
Henley, S. F., Cozzi, S., Fripiat, F., Lannuzel, D., Nomura, D., Thomas, D. N., Meinersg, K. M., Vancoppenollej, M., Arrigo, K., Stefels, J., van Leeuwe, M., Moreau, S., Jones, et al
2023; 257
- **Rapid climate change alters the environment and biological production of the Indian Ocean.** *The Science of the total environment*
Dalpadado, P., Roxy, M. K., Arrigo, K. R., van Dijken, G. L., Chierici, M., Ostrowski, M., Skern-Mauritzen, R., Bakke, G., Richardson, A. J., Sperfeld, E.
2023: 167342
- **Spatial and Interannual Variability of Antarctic Sea Ice Bottom Algal Habitat, 2004-2019** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Lim, S. M., van Dijken, G. L., Arrigo, K. R.
2023; 128 (9)
- **Similarity in phytoplankton photophysiology among under-ice, marginal ice, and open water environments of Baffin Bay (Arctic Ocean)** *ELEMENTA-SCIENCE OF THE ANTHROPOCENE*
Joy-Warren, H. L., Lewis, K. M., Ardyna, M., Tremblay, J., Babin, M., Arrigo, K. R.
2023; 11 (1)
- **Light, ammonium, pH, and phytoplankton competition as environmental factors controlling nitrification** *LIMNOLOGY AND OCEANOGRAPHY*

- Proctor, C., Coupel, P., Casciotti, K., Tremblay, J., Zakem, E., Arrigo, K. R., Mills, M. M.
2023
- **Sensitivity of the Relationship Between Antarctic Ice Shelves and Iron Supply to Projected Changes in the Atmospheric Forcing** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Dinniman, M. S., St-Laurent, P., Arrigo, K. R., Hofmann, E. E., van Dijken, G. L.
2023; 128 (2)
 - **Wildfire aerosol deposition likely amplified a summertime Arctic phytoplankton bloom** *COMMUNICATIONS EARTH & ENVIRONMENT*
Ardyna, M., Hamilton, D. S., Harmel, T., Lacour, L., Bernstein, D. N., Laliberte, J., Horvat, C., Laxenaire, R., Mills, M. M., van Dijken, G., Polyakov, I., Claustre, H., Mahowald, et al
2022; 3 (1)
 - **Seasonal Water Mass Evolution and Non-Redfield Dynamics Enhance CO₂ Uptake in the Chukchi Sea** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Zhangxian, O., Collins, A., Li, Y., Qi, D., Arrigo, K. R., Zhuang, Y., Nishino, S., Humphreys, M. P., Kosugi, N., Murata, A., Kirchman, D. L., Chen, L., Chen, et al
2022; 127 (8)
 - **Seasonal Water Mass Evolution and Non-Redfield Dynamics Enhance CO₂ Uptake in the Chukchi Sea.** *Journal of geophysical research. Oceans*
Ouyang, Z., Collins, A., Li, Y., Qi, D., Arrigo, K. R., Zhuang, Y., Nishino, S., Humphreys, M. P., Kosugi, N., Murata, A., Kirchman, D. L., Chen, L., Chen, et al
2022; 127 (8): e2021JC018326
 - **North-South Differences in Under-Ice Primary Production in the Chukchi Sea From 1988 to 2018** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Payne, C. M., van Dijken, G. L., Arrigo, K. R.
2022; 127 (7)
 - **Springtime phytoplankton responses to light and iron availability along the western Antarctic Peninsula** *LIMNOLOGY AND OCEANOGRAPHY*
Joy-Warren, H. L., Alderkamp, A., van Dijken, G. L., Jabre, L., Bertrand, E. M., Baldonado, E. N., Glickman, M. W., Lewis, K. M., Middag, R., Seyitmuhammedov, K., Lowry, K. E., van de Poll, W., Arrigo, et al
2022
 - **The distribution of Fe across the shelf of the Western Antarctic Peninsula at the start of the phytoplankton growing season** *MARINE CHEMISTRY*
Seyitmuhammedov, K., Stirling, C. H., Reid, M. R., van Hale, R., Laan, P., Arrigo, K. R., van Dijken, G., Alderkamp, A., Middag, R.
2022; 238
 - **Increases in Arctic sea ice algal habitat, 1985-2018** *Elementa: Science of the Anthropocene*
Lim, S. M., Payne, C. M., van Dijken, G. L., Arrigo, K. R.
2022; 10 (1)
 - **Warming of the Indian Ocean and its impact on temporal and spatial dynamics of primary production** *PROGRESS IN OCEANOGRAPHY*
Dalpadado, P., Arrigo, K. R., van Dijken, G. L., Gunasekara, S. S., Ostrowski, M., Bianchi, G., Sperfeld, E.
2021; 198
 - **UCYN-A/haptophyte symbioses dominate N₂ fixation in the Southern California Current System.** *ISME communications*
Turk-Kubo, K. A., Mills, M. M., Arrigo, K. R., van Dijken, G., Henke, B. A., Stewart, B., Wilson, S. T., Zehr, J. P.
2021; 1 (1): 42
 - **Fe-binding organic ligands in coastal and frontal regions of the western Antarctic Peninsula** *BIOGEOSCIENCES*
Ardiningsih, I., Seyitmuhammedov, K., Sander, S. G., Stirling, C. H., Reichart, G., Arrigo, K. R., Gerringa, L. J. A., Middag, R.
2021; 18 (15): 4587-4601
 - **Physical Controls on the Macrofaunal Benthic Biomass in Barrow Canyon, Chukchi Sea** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Pickart, R. S., Spall, M. A., Lin, P., Bahr, F., McRaven, L. T., Arrigo, K. R., Grebmeier, J. M.
2021; 126 (5)

- **Massive Southern Ocean phytoplankton bloom fed by iron of possible hydrothermal origin.** *Nature communications*
Schine, C. M., Alderkamp, A., van Dijken, G., Gerringa, L. J., Sergi, S., Laan, P., van Haren, H., van de Poll, W. H., Arrigo, K. R.
2021; 12 (1): 1211
- **Response of Lower Sacramento River phytoplankton to high-ammonium wastewater effluent** *Elementa: Science of the Anthropocene*
Strong, A. L., Mills, M. M., Huang, I. B., van Dijken, G. L., Driscoll, S. E., Berg, G. M., Kudela, R. M., Monismith, S. G., Francis, C. A., Arrigo, K. R.
2021; 9(1)
- **Under-Ice Phytoplankton Blooms: Shedding Light on the "Invisible" Part of Arctic Primary Production** *FRONTIERS IN MARINE SCIENCE*
Ardyna, M., Mundy, C. J., Mayot, N., Matthes, L. C., Oziel, L., Horvat, C., Leu, E., Assmy, P., Hill, V., Matrai, P. A., Gale, M., Melnikov, I. A., Arrigo, et al
2020; 7
- **Dissolved Trace Metals in the Ross Sea** *FRONTIERS IN MARINE SCIENCE*
Gerringa, L. J. A., Alderkamp, A., van Dijken, G., Laan, P., Middag, R., Arrigo, K. R.
2020; 7
- **Comparison of Cloud-Filling Algorithms for Marine Satellite Data** *REMOTE SENSING*
Stock, A., Subramaniam, A., Van Dijken, G. L., Wedding, L. M., Arrigo, K. R., Mills, M. M., Cameron, M. A., Micheli, F.
2020; 12 (20)
- **Phytoplankton dynamics in a changing Arctic Ocean** *NATURE CLIMATE CHANGE*
Ardyna, M., Arrigo, K.
2020; 10 (10): 892–903
- **Summer High-Wind Events and Phytoplankton Productivity in the Arctic Ocean** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Crawford, A. D., Krumhardt, K. M., Lovenduski, N. S., van Dijken, G. L., Arrigo, K. R.
2020; 125 (9)
- **The Atlantic Water Boundary Current in the Chukchi Borderland and Southern Canada Basin** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Li, J., Pickart, R. S., Lin, P., Bahr, F., Arrigo, K. R., Juranek, L., Yang, X.
2020; 125 (8)
- **Environmental drivers of under-ice phytoplankton bloom dynamics in the Arctic Ocean** *ELEMENTA-SCIENCE OF THE ANTHROPOCENE*
Ardyna, M., Mundy, C. J., Mills, M. M., Oziel, L., Grondin, P., Lacour, L., Verin, G., Van Dijken, G., Ras, J., Alou-Font, E., Babin, M., Gosselin, M., Tremblay, et al
2020; 8
- **Unusual marine cyanobacteria/haptophyte symbiosis relies on N₂ fixation even in N-rich environments.** *The ISME journal*
Mills, M. M., Turk-Kubo, K. A., van Dijken, G. L., Henke, B. A., Harding, K., Wilson, S. T., Arrigo, K. R., Zehr, J. P.
2020
- **Climate effects on temporal and spatial dynamics of phytoplankton and zooplankton in the Barents Sea** *PROGRESS IN OCEANOGRAPHY*
Dalpadado, P., Arrigo, K. R., van Dijken, G. L., Skjoldal, H., Bagoien, E., Dolgov, A., Prokopchuk, I. P., Sperfeld, E.
2020; 185
- **Analysis of Iron Sources in Antarctic Continental Shelf Waters** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Dinniman, M. S., St-Laurent, P., Arrigo, K. R., Hofmann, E. E., van Dijken, G. L.
2020; 125 (5)
- **Light Is the Primary Driver of Early Season Phytoplankton Production Along the Western Antarctic Peninsula** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Joy-Warren, H. L., van Dijken, G. L., Alderkamp, A., Leventer, A., Lewis, K. M., Selz, V., Lowry, K. E., van de Poll, W., Arrigo, K. R.
2019
- **Characteristics and Transformation of Pacific Winter Water on the Chukchi Sea Shelf in Late Spring** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Pacini, A., Moore, G. K., Pickart, R. S., Nobre, C., Bahr, F., Vage, K., Arrigo, K. R.
2019

- **Zooplankton and micronekton respond to climate fluctuations in the Amundsen Sea polynya, Antarctica.** *Scientific reports*
La, H. S., Park, K., Wahlin, A., Arrigo, K. R., Kim, D. S., Yang, E. J., Atkinson, A., Fielding, S., Im, J., Kim, T., Shin, H. C., Lee, S., Ha, et al
2019; 9 (1): 10087
- **Effects of iron and light availability on phytoplankton photosynthetic properties in the Ross Sea** *MARINE ECOLOGY PROGRESS SERIES*
Alderkamp, A., van Dijken, G. L., Lowry, K. E., Lewis, K. M., Joy-Warren, H. L., van de Poll, W., Laan, P., Gerringa, L., Delmont, T. O., Jenkins, B. D., Arrigo, K. R.
2019; 621: 33–50
- **Water Mass Evolution and Circulation of the Northeastern Chukchi Sea in Summer: Implications for Nutrient Distributions** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Lin, P., Pickart, R. S., McRaven, L. T., Arrigo, K. R., Bahr, F., Lowry, K. E., Stockwell, D. A., Mordy, C. W.
2019; 124 (7): 4416–32
- **Seasonal to mesoscale variability of water masses and atmospheric conditions in Barrow Canyon, Chukchi Sea** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Pickart, R. S., Nobre, C., Lin, P., Arrigo, K. R., Ashjian, C. J., Berchok, C., Cooper, L. W., Grebmeier, J. M., Hartwell, I., He, J., Itoh, M., Kikuchi, T., Nishino, et al
2019; 162: 32–49
- **Benthic fluxes of trace metals in the Chukchi Sea and their transport into the Arctic Ocean** *MARINE CHEMISTRY*
Vieira, L. H., Achterberg, E. P., Scholten, J., Beck, A. J., Liebetrau, V., Mills, M. M., Arrigo, K. R.
2019; 208: 43–55
- **Fine-scale oceanographic features characterizing successful Adelie penguin foraging in the SW Ross Sea** *MARINE ECOLOGY PROGRESS SERIES*
Ballard, G., Schmidt, A. E., Toniolo, V., Veloz, S., Jongsomjit, D., Arrigo, K. R., Ainley, D. G.
2019; 608: 263–77
- **Hydrothermal vents trigger massive phytoplankton blooms in the Southern Ocean.** *Nature communications*
Ardyna, M. n., Lacour, L. n., Sergi, S. n., d'Ovidio, F. n., Sallée, J. B., Rembauville, M. n., Blain, S. n., Tagliabue, A. n., Schlitzer, R. n., Jeandel, C. n., Arrigo, K. R., Claustre, H. n.
2019; 10 (1): 2451
- **A DECISION FRAMEWORK FOR INTERVENTIONS TO INCREASE THE PERSISTENCE AND RESILIENCE OF CORAL REEFS**
Introduction *DECISION FRAMEWORK FOR INTERVENTIONS TO INCREASE THE PERSISTENCE AND RESILIENCE OF CORAL REEFS*
Palumbi, S. R., Anthony, K. R. N., Baker, A. C., Baskett, M. L., Bhattacharya, D., Bourne, D. G., Knowlton, N., Logan, C. A., Naish, K. A., Richmond, R. H., Smith, T. B., Von Stackelberg, K., Mayer, et al
2019: 19–32
- **Nitrogen Limitation of the Summer Phytoplankton and Heterotrophic Prokaryote Communities in the Chukchi Sea** *FRONTIERS IN MARINE SCIENCE*
Mills, M. M., Brown, Z. W., Laney, S. R., Ortega-Retuerta, E., Lowry, K. E., van Dijken, G. L., Arrigo, K. R.
2018; 5
- **Drivers of Ice Algal Bloom Variability Between 1980 and 2015 in the Chukchi Sea** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Selz, V., Saenz, B. T., van Dijken, G. L., Arrigo, K. R.
2018; 123 (10): 7037–52
- **Phytoplankton and bacterial dynamics on the Chukchi Sea Shelf during the spring-summer transition** *MARINE ECOLOGY PROGRESS SERIES*
Connell, P. E., Michel, C., Meisterhans, G., Arrigo, K. R., Caron, D. A.
2018; 602: 49–62
- **Optically-derived estimates of phytoplankton size class and taxonomic group biomass in the Eastern Subarctic Pacific Ocean** *DEEP-SEA RESEARCH PART I-OCEANOGRAPHIC RESEARCH PAPERS*
Zeng, C., Rosengard, S. Z., Burt, W., Pena, M., Nemcek, N., Zeng, T., Arrigo, K. R., Tortell, P. D.
2018; 136: 107–18
- **Ice algal communities in the Chukchi and Beaufort Seas in spring and early summer: Composition, distribution, and coupling with phytoplankton assemblages** *LIMNOLOGY AND OCEANOGRAPHY*

- Selz, V., Laney, S., Arnsten, A. E., Lewis, K. M., Lowry, K. E., Joy-Warren, H. L., Mills, M. M., van Dijken, G. L., Arrigo, K. R.
2018; 63 (3): 1109–33
- **Carbon and nitrogen zooplankton isoscapes in West Antarctica reflect oceanographic transitions** *MARINE ECOLOGY PROGRESS SERIES*
Brault, E. K., Koch, P. L., McMahon, K. W., Broach, K. H., Rosenfield, A. P., Sauthoff, W., Loeb, V. J., Arrigo, K. R., Smith, W. O.
2018; 593: 29–45
 - **Exploring the Potential Impact of Greenland Meltwater on Stratification, Photosynthetically Active Radiation, and Primary Production in the Labrador Sea** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Oliver, H., Luo, H., Castelao, R. M., van Dijken, G. L., Mattingly, K. S., Rosen, J. J., Mote, T. L., Arrigo, K. R., Rennermalm, A. K., Tedesco, M., Yager, P. L.
2018; 123 (4): 2570–91
 - **Satellite sensor requirements for monitoring essential biodiversity variables of coastal ecosystems** *ECOLOGICAL APPLICATIONS*
Muller-Karger, F. E., Hestir, E., Ade, C., Turpie, K., Roberts, D. A., Siegel, D., Miller, R. J., Humm, D., Izenberg, N., Keller, M., Morgan, F., Frouin, R., Dekker, et al
2018; 28 (3): 749–60
 - **Microalgal community structure and primary production in Arctic and Antarctic sea ice: A synthesis** *ELEMENTA-SCIENCE OF THE ANTHROPOCENE*
van Leeuwe, M. A., Tedesco, L., Arrigo, K. R., Assmy, P., Campbell, K., Meiners, K. M., Rintala, J., Selz, V., Thomas, D. N., Stefels, J.
2018; 6
 - **Distribution of *Phaeocystis antarctica*-dominated sea ice algal communities and their potential to seed phytoplankton across the western Antarctic Peninsula in spring** *MARINE ECOLOGY PROGRESS SERIES*
Selz, V., Lowry, K. E., Lewis, K. M., Joy-Warren, H. L., van de Poll, W., Nirmel, S., Tong, A., Arrigo, K. R.
2018; 586: 91–112
 - **Under-Ice Phytoplankton Blooms Inhibited by Spring Convective Mixing in Refreezing Leads** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Lowry, K. E., Pickart, R. S., Selz, V., Mills, M. M., Pacini, A., Lewis, K. M., Joy-Warren, H. L., Nobre, C., van Dijken, G. L., Grondin, P., Ferland, J., Arrigo, K. R.
2018; 123 (1): 90–109
 - **Early Spring Phytoplankton Dynamics in the Western Antarctic Peninsula** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., van Dijken, G. L., Alderkamp, A., Erickson, Z. K., Lewis, K. M., Lowry, K. E., Joy-Warren, H. L., Middag, R., Nash-Arrigo, J. E., Selz, V., van de Poll, W.
2017; 122 (12): 9350–69
 - **Late Spring Nitrate Distributions Beneath the Ice-Covered Northeastern Chukchi Shelf** *JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES*
Arrigo, K. R., Mills, M. M., van Dijken, G. L., Lowry, K. E., Pickart, R. S., Schlitzer, R.
2017; 122 (9): 2409–17
 - **Melting glaciers stimulate large summer phytoplankton blooms in southwest Greenland waters** *GEOPHYSICAL RESEARCH LETTERS*
Arrigo, K. R., van Dijken, G. L., Castelao, R. M., Luo, H., Rennermalm, A. K., Tedesco, M., Mote, T. L., Oliver, H., Yager, P. L.
2017; 44 (12): 6278–85
 - **Macro-nutrient concentrations in Antarctic pack ice: Overall patterns and overlooked processes** *ELEMENTA-SCIENCE OF THE ANTHROPOCENE*
Fripiat, F., Meiners, K. M., Vancoppenolle, M., Papadimitriou, S., Thomas, D. N., Ackley, S. F., Arrigo, K. R., Carnat, G., Cozzi, S., Delille, B., Dieckmann, G. S., Dunbar, R. B., Fransson, et al
2017; 5
 - **Advection in polar and sub-polar environments: Impacts on high latitude marine ecosystems** *PROGRESS IN OCEANOGRAPHY*
Hunt, G. L., Drinkwater, K. F., Arrigo, K., Berge, J., Daly, K. L., Danielson, S., Daase, M., Hop, H., Isla, E., Karnovsky, N., Laidre, K., Mueter, F. J., Murphy, et al
2016; 149: 40-81
 - **Regional chlorophyll a algorithms in the Arctic Ocean and their effect on satellite-derived primary production estimates** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Lewis, K. M., Mitchell, B. G., van Dijken, G. L., Arrigo, K. R.

2016; 130: 14-27

- **Mass balance estimates of carbon export in different water masses of the Chukchi Sea shelf** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Strong, A. L., Lowry, K. E., Brown, Z. W., Mills, M. M., Van Dijken, G. L., Pickart, R. S., Cooper, L. W., Frey, K. E., Benner, R., Fichot, C. G., Mathis, J. T., Bates, N. R., Arrigo, et al
2016; 130: 88-99
- **Decadal trends in air-sea CO₂ exchange in the Ross Sea (Antarctica)** *GEOPHYSICAL RESEARCH LETTERS*
Tagliabue, A., Arrigo, K. R.
2016; 43 (10): 5271-5278
- **Spatial analysis of trends in primary production and relationship with large-scale climate variability in the Ross Sea, Antarctica (1997-2013)** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Schine, C. M., van Dijken, G., Arrigo, K. R.
2016; 121 (1): 368-386
- **Sources of iron in the Ross Sea Polynya in early summer** *MARINE CHEMISTRY*
Gerringa, L. J., Laan, P., van Dijken, G. L., Van Haren, H., de Baar, H. J., Arrigo, K. R., Alderkamp, A.
2015; 177: 447-459
- **Iron supply and demand in an Antarctic shelf ecosystem** *GEOPHYSICAL RESEARCH LETTERS*
McGillicuddy, D. J., Sedwick, P. N., Dinniman, M. S., Arrigo, K. R., Bibby, T. S., Greenan, B. J., Hofmann, E. E., Klinck, J. M., Smith, W. O., MACK, S. L., Marsay, C. M., Sohst, B. M., van Dijken, et al
2015; 42 (19): 8088-8097
- **Water properties, heat and volume fluxes of Pacific water in Barrow Canyon during summer 2010** *DEEP-SEA RESEARCH PART I-OCEANOGRAPHIC RESEARCH PAPERS*
Itoh, M., Pickart, R. S., Kikuchi, T., Fukamachi, Y., Ohshima, K. I., Simizu, D., Arrigo, K. R., Vagle, S., He, J., Ashjian, C., Mathis, J. T., Nishino, S., Nobre, et al
2015; 102: 43-54
- **Environmental controls of marine productivity hot spots around Antarctica** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Van Dijken, G. L., Strong, A. L.
2015; 120 (8): 5545-5565
- **Characteristics of colored dissolved organic matter (CDOM) in the Western Arctic Ocean: Relationships with microbial activities** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Matsuoka, A., Ortega-Retuerta, E., Bricaud, A., Arrigo, K. R., Babin, M.
2015; 118: 44-52
- **The influence of winter water on phytoplankton blooms in the Chukchi Sea** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Lowry, K. E., Pickart, R. S., Mills, M. M., Brown, Z. W., Van Dijken, G. L., Bates, N. R., Arrigo, K. R.
2015; 118: 53-72
- **Continued increases in Arctic Ocean primary production** *PROGRESS IN OCEANOGRAPHY*
Arrigo, K. R., Van Dijken, G. L.
2015; 136: 60-70
- **Ecosystem characteristics and processes facilitating persistent macrobenthic biomass hotspots and associated benthivory in the Pacific Arctic** *PROGRESS IN OCEANOGRAPHY*
Grebmeier, J. M., Bluhm, B. A., Cooper, L. W., Danielson, S. L., Arrigo, K. R., Blanchard, A. L., Clarke, J. T., Day, R. H., Frey, K. E., Gradinger, R. R., Kedra, M., Konar, B., Kuletz, et al
2015; 136: 92-114
- **Characterizing the subsurface chlorophyll a maximum in the Chukchi Sea and Canada Basin** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Brown, Z. W., Lowry, K. E., Palmer, M. A., Van Dijken, G. L., Mills, M. M., Pickart, R. S., Arrigo, K. R.
2015; 118: 88-104

- **Aspects of the marine nitrogen cycle of the Chukchi Sea shelf and Canada Basin** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Brown, Z. W., Casciotti, K. L., Pickart, R. S., Swift, J. H., Arrigo, K. R.
2015; 118: 73-87
- **Impacts of low phytoplankton NO₃- :PO₄³⁻ utilization ratios over the Chukchi Shelf, Arctic Ocean** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Mills, M. M., Brown, Z. W., Lowry, K. E., Van Dijken, G. L., Becker, S., Pal, S., Benitez-Nelson, C. R., Downer, M. M., Strong, A. L., Swift, J. H., Pickart, R. S., Arrigo, K. R.
2015; 118: 105-121
- **Tight coupling of primary production and marine mammal reproduction in the Southern Ocean** *PROCEEDINGS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES*
Paterson, J. T., Rotella, J. J., Arrigo, K. R., Garrott, R. A.
2015; 282 (1806)
- **Estimates of net community production in the Southern Ocean determined from time series observations (2002-2011) of nutrients, dissolved inorganic carbon, and surface ocean pCO₂ in Drake Passage** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Munro, D. R., Lovenduski, N. S., Stephens, B. B., Newberger, T., Arrigo, K. R., Takahashi, T., Quay, P. D., Sprintall, J., Freeman, N. M., Sweeney, C.
2015; 114: 49-63
- **Climate change and Southern Ocean ecosystems I: how changes in physical habitats directly affect marine biota** *GLOBAL CHANGE BIOLOGY*
Constable, A. J., Melbourne-Thomas, J., Corney, S. P., Arrigo, K. R., Barbraud, C., Barnes, D. K., Bindoff, N. L., Boyd, P. W., Brandt, A., Costa, D. P., Davidson, A. T., Ducklow, H. W., Emmerson, et al
2014; 20 (10): 3004-3025
- **Climate change and Southern Ocean ecosystems I: how changes in physical habitats directly affect marine biota.** *Global change biology*
Constable, A. J., Melbourne-Thomas, J., Corney, S. P., Arrigo, K. R., Barbraud, C., Barnes, D. K., Bindoff, N. L., Boyd, P. W., Brandt, A., Costa, D. P., Davidson, A. T., Ducklow, H. W., Emmerson, et al
2014; 20 (10): 3004-3025
- **Response of marine bacterioplankton to a massive under-ice phytoplankton bloom in the Chukchi Sea (Western Arctic Ocean)** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Ortega-Retuerta, E., Fichot, C. G., Arrigo, K. R., van Dijken, G. L., Joux, E.
2014; 105: 74-84
- **Role of shelfbreak upwelling in the formation of a massive under-ice bloom in the Chukchi Sea** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Spall, M. A., Pickart, R. S., Brugler, E. T., Moore, G. W., Thomas, L., Arrigo, K. R.
2014; 105: 17-29
- **Impacts of sea ice retreat, thinning, and melt-pond proliferation on the summer phytoplankton bloom in the Chukchi Sea, Arctic Ocean** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Palmer, M. A., Saenz, B. T., Arrigo, K. R.
2014; 105: 85-104
- **Evidence of under-ice phytoplankton blooms in the Chukchi Sea from 1998 to 2012** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Lowry, K. E., Van Dijken, G. L., Arrigo, K. R.
2014; 105: 105-117
- **Phytoplankton blooms beneath the sea ice in the Chukchi sea** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Arrigo, K. R., Perovich, D. K., Pickart, R. S., Brown, Z. W., Van Dijken, G. L., Lowry, K. E., Mills, M. M., Palmer, M. A., Balch, W. M., Bates, N. R., Benitez-Nelson, C. R., Brownlee, E., Frey, et al
2014; 105: 1-16
- **Annual primary production in Antarctic sea ice during 2005-2006 from a sea ice state estimate** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Saenz, B. T., Arrigo, K. R.

2014; 119 (6): 3645-3678

- **Twentieth century sea-ice trends in the Ross Sea from a high-resolution, coastal ice-core record** *GEOPHYSICAL RESEARCH LETTERS*
Sinclair, K. E., Bertler, N. A., Bowen, M. M., Arrigo, K. R.
2014; 41 (10): 3510-3516
- **Productivity in the Barents Sea - Response to Recent Climate Variability** *PLOS ONE*
Dalpadado, P., Arrigo, K. R., Hjollo, S. S., Rey, F., Ingvaldsen, R. B., Sperfeld, E., Van Dijken, G. L., Stige, L. C., Olsen, A., Ottersen, G.
2014; 9 (5)
- **Massive difference in synonymous substitution rates among mitochondrial, plastid, and nuclear genes of Phaeocystis algae** *MOLECULAR PHYLOGENETICS AND EVOLUTION*
Smith, D. R., Arrigo, K. R., Alderkamp, A., Allen, A. E.
2014; 71: 36-40
- **Sea ice ecosystems** *Annual Review of Marine Science*
Arrigo, K. R.
2014
- **Sea Ice Ecosystems** *ANNUAL REVIEW OF MARINE SCIENCE, VOL 6*
Arrigo, K. R.
2014; 6: 439-467
- **Productivity in the barents sea--response to recent climate variability.** *PloS one*
Dalpadado, P., Arrigo, K. R., Hjollo, S. S., Rey, F., Ingvaldsen, R. B., Sperfeld, E., Van Dijken, G. L., Stige, L. C., Olsen, A., Ottersen, G.
2014; 9 (5)
- **The oceanography and ecology of the ross sea.** *Annual review of marine science*
Smith, W. O., Ainley, D. G., Arrigo, K. R., Dinniman, M. S.
2014; 6: 469-487
- **(submitted) Primary Production in Antarctic Sea Ice from a Sea Ice State Estimate** *Journal of Geophysical Research*
Saenz, B. T., Arrigo, K. R.
2014
- **(submitted) Iron supply and demand in an antarctic shelf ecosystem** *Nature Geosciences*
McGillicuddy, D. J., Sedwick, P. N., Dinniman, M. S., Arrigo, K. R., Bibby, T. S., Greenan, B. E., Hofmann, E. E., Klinck, J. M., Marsay, C. M., Smith Jr., W. O., Sohst, B. M., van Dijken, G. L.
2014
- **The oceanography and ecology of the Ross Sea** *Annual Reviews of Marine Science*
Smith, Jr., W. O., Ainley, D. G., Arrigo, K. R., Dinniman, M. S.
2014; 6 (10): 1-19
- **(submitted) Impacts of low phytoplankton NO₃:PO₄ utilization ratios over the Chukchi Shelf, Arctic Ocean** *Deep Sea Research, Part II*
Mills, M. M., Brown, Z. W., Lowry, K. E., van Dijken, G. L., Becker, S., Pal, S., Benitez-Nelson, C., Downer, M. M., Strong, A. L., Swift, J. H., Pickart, R. S., Arrigo, K. R.
2014
- **Light and nutrient control of photosynthesis in natural phytoplankton populations from the Chukchi and Beaufort seas, Arctic Ocean** *LIMNOLOGY AND OCEANOGRAPHY*
Palmer, M. A., Van Dijken, G. L., Mitchell, B. G., Seegers, B. J., Lowry, K. E., Mills, M. M., Arrigo, K. R.
2013; 58 (6): 2185-2205
- **Processes and patterns of oceanic nutrient limitation** *NATURE GEOSCIENCE*
Moore, C. M., Mills, M. M., Arrigo, K. R., Berman-Frank, I., Bopp, L., Boyd, P. W., Galbraith, E. D., Geider, R. J., Guieu, C., Jaccard, S. L., Jickells, T. D., La Roche, J., Lenton, et al
2013; 6 (9): 701-710
- **Long-term trends of upwelling and impacts on primary productivity in the Alaskan Beaufort Sea** *DEEP-SEA RESEARCH PART I-OCEANOGRAPHIC RESEARCH PAPERS*

- Pickart, R. S., Schulze, L. M., Moore, G. W., Charette, M. A., Arrigo, K. R., van Dijken, G., Danielson, S. L.
2013; 79: 106-121
- **Sea ice impacts on spring bloom dynamics and net primary production in the Eastern Bering Sea** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Brown, Z. W., Arrigo, K. R.
2013; 118 (1): 43-62
 - **Light and nutrient control of photosynthesis in natural phytoplankton populations from the Chukchi and Beaufort Seas, Arctic Ocean** *LIMINOLOGY AND OCEANOGRAPHY*
Palmer, M. A., van Dijken, G. L., Mitchell, B. G., Seegers, B. J., Lowry, K. E., Mills, M. M., Arrigo, K. R.
2013
 - **Photoacclimation and non-photochemical quenching under in situ irradiance in natural phytoplankton assemblages from the Amundsen Sea, Antarctica** *MARINE ECOLOGY PROGRESS SERIES*
Alderkamp, A., Mills, M. M., Van Dijken, G. L., Arrigo, K. R.
2013; 475: 15-?
 - **Insignificant buffering capacity of Antarctic shelf carbonates** *GLOBAL BIOGEOCHEMICAL CYCLES*
Hauck, J., Arrigo, K. R., Hoppema, M., van Dijken, G. L., Voelker, C., Wolf-Gladrow, D. A.
2013; 27 (1): 11-20
 - **Inorganic C utilization and C isotope fractionation by pelagic and sea ice algal assemblages along the Antarctic continental shelf** *MARINE ECOLOGY PROGRESS SERIES*
Tortell, P. D., Mills, M. M., Payne, C. D., Maldonado, M. T., Chierici, M., Fransson, A., Alderkamp, A., Arrigo, K. R.
2013; 483: 47-66
 - **Chlorophyll a in Antarctic sea ice from historical ice core data** *GEOPHYSICAL RESEARCH LETTERS*
Meiners, K. M., Vancoppenolle, M., Thanassekos, S., Dieckmann, G. S., Thomas, D. N., Tison, J., Arrigo, K. R., Garrison, D. L., McMinn, A., Lannuzel, D., Van der Merwe, P., Swadling, K. M., Smith, et al
2012; 39
 - **Patterns and controlling factors of species diversity in the Arctic Ocean** *JOURNAL OF BIOGEOGRAPHY*
Yasuhara, M., Hunt, G., van Dijken, G., Arrigo, K. R., Cronin, T. M., Wollenburg, J. E.
2012; 39 (11): 2081-2088
 - **Key role of organic complexation of iron in sustaining phytoplankton blooms in the Pine Island and Amundsen Polynyas (Southern Ocean)** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Thuroczy, C., Alderkamp, A., Laan, P., Gerringa, L. J., Mills, M. M., Van Dijken, G. L., de Baar, H. J., Arrigo, K. R.
2012; 71-76: 49-60
 - **Iron from melting glaciers fuels the phytoplankton blooms in Amundsen Sea (Southern Ocean): Iron biogeochemistry** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Gerringa, L. J., Alderkamp, A., Laan, P., Thuroczy, C., de Baar, H. J., Mills, M. M., Van Dijken, G. L., van Haren, H., Arrigo, K. R.
2012; 71-76: 16-31
 - **Iron from melting glaciers fuels phytoplankton blooms in the Amundsen Sea (Southern Ocean): Phytoplankton characteristics and productivity** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Alderkamp, A., Mills, M. M., Van Dijken, G. L., Laan, P., Thuroczy, C., Gerringa, L. J., de Baar, H. J., Payne, C. D., Visser, R. J., Buma, A. G., Arrigo, K. R.
2012; 71-76: 32-48
 - **Spatial distribution of pCO₂, Delta O-2/Ar and dimethylsulfide (DMS) in polynya waters and the sea ice zone of the Amundsen Sea, Antarctica** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Tortell, P. D., Long, M. C., Payne, C. D., Alderkamp, A., Dutrieux, P., Arrigo, K. R.
2012; 71-76: 77-93
 - **Shedding dynamic light on Fe limitation (DynaLiFe) Introduction** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Arrigo, K. R., Alderkamp, A.
2012; 71-76: 1-4

- **Phytoplankton biomass and pigment responses to Fe amendments in the Pine Island and Amundsen polynyas** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Mills, M. M., Alderkamp, A., Thuroczy, C., Van Dijken, G. L., Laan, P., de Baar, H. J., Arrigo, K. R.
2012; 71-76: 61-76
- **Annual changes in sea ice and phytoplankton in polynyas of the Amundsen Sea, Antarctica** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Arrigo, K. R., Lowry, K. E., Van Dijken, G. L.
2012; 71-76: 5-15
- **THE ROSS SEA IN A SEA OF CHANGE** *OCEANOGRAPHY*
Smith, W. O., Sedwick, P. N., Arrigo, K. R., Ainley, D. G., Orsi, A. H.
2012; 25 (3): 90-103
- **ASPIRE The Amundsen Sea Polynya International Research Expedition** *OCEANOGRAPHY*
Yager, P. L., Sherrell, R. M., Stammerjohn, S. E., Alderkamp, A., Schofield, O., Abrahamsen, E. P., Arrigo, K. R., Bertilsson, S., Garay, D. L., Guerrero, R., Lowry, K. E., Moksnes, P., Ndungu, et al
2012; 25 (3): 40-53
- **Contrasting trends in sea ice and primary production in the Bering Sea and Arctic Ocean** *ICES JOURNAL OF MARINE SCIENCE*
Brown, Z. W., Arrigo, K. R.
2012; 69 (7): 1180-1193
- **Massive Phytoplankton Blooms Under Arctic Sea Ice** *SCIENCE*
Arrigo, K. R., Perovich, D. K., Pickart, R. S., Brown, Z. W., Van Dijken, G. L., Lowry, K. E., Mills, M. M., Palmer, M. A., Balch, W. M., Bahr, F., Bates, N. R., Benitez-Nelson, C., Bowler, et al
2012; 336 (6087): 1408-1408
- **Mapping phytoplankton iron utilization: Insights into Southern Ocean supply mechanisms** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Boyd, P. W., Arrigo, K. R., Strzepek, R., van Dijken, G. L.
2012; 117
- **Simulation of a sea ice ecosystem using a hybrid model for slush layer desalination** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Saenz, B. T., Arrigo, K. R.
2012; 117
- **THE EFFECT OF IRON LIMITATION ON THE PHOTOPHYSIOLOGY OF PHAEOCYSTIS ANTARCTICA (PRYMNESIOPHYCEAE) AND FRAGILARIOPSIS CYLINDRUS (BACILLARIOPHYCEAE) UNDER DYNAMIC IRRADIANCE** *JOURNAL OF PHYCOLOGY*
Alderkamp, A., Kulk, G., Buma, A. G., Visser, R. J., Van Dijken, G. L., Mills, M. M., Arrigo, K. R.
2012; 48 (1): 45-59
- **THE EFFECT OF IRON LIMITATION ON THE PHOTOPHYSIOLOGY OF PHAEOCYSTIS ANTARCTICA (PRYMNESIOPHYCEAE) AND FRAGILARIOPSIS CYLINDRUS (BACILLARIOPHYCEAE) UNDER DYNAMIC IRRADIANCE(1).** *Journal of phycology*
Alderkamp, A. C., Kulk, G., Buma, A. G., Visser, R. J., Van Dijken, G. L., Mills, M. M., Arrigo, K. R.
2012; 48 (1): 45-59
- **Early season depletion of dissolved iron in the Ross Sea polynya: Implications for iron dynamics on the Antarctic continental shelf** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Sedwick, P. N., Marsay, C. M., Sohst, B. M., Aguilar-Islas, A. M., Lohan, M. C., Long, M. C., Arrigo, K. R., Dunbar, R. B., Saito, M. A., Smith, W. O., DiTullio, G. R.
2011; 116
- **High concentrations and turnover rates of DMS, DMSP and DMSO in Antarctic sea ice** *GEOPHYSICAL RESEARCH LETTERS*
Asher, E. C., Dacey, J. W., Mills, M. M., Arrigo, K. R., Tortell, P. D.
2011; 38
- **Spatial and temporal variation of photosynthetic parameters in natural phytoplankton assemblages in the Beaufort Sea, Canadian Arctic** *POLAR BIOLOGY*
Palmer, M. A., Arrigo, K. R., Mundy, C. J., Ehn, J. K., Gosselin, M., Barber, D. G., Martin, J., Alou, E., Roy, S., Tremblay, J.
2011; 34 (12): 1915-1928

- **Primary productivity in the Arctic Ocean: Impacts of complex optical properties and subsurface chlorophyll maxima on large-scale estimates** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Matrai, P. A., Van Dijken, G. L.
2011; 116
- **Secular trends in Arctic Ocean net primary production** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Van Dijken, G. L.
2011; 116
- **Short-term photoacclimation effects on photoinhibition of phytoplankton in the Drake Passage (Southern Ocean)** *DEEP-SEA RESEARCH PART I-OCEANOGRAPHIC RESEARCH PAPERS*
Alderkamp, A., Garcon, V., de Baar, H. J., Arrigo, K. R.
2011; 58 (9): 943-955
- **A reassessment of primary production and environmental change in the Bering Sea** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Brown, Z. W., Van Dijken, G. L., Arrigo, K. R.
2011; 116
- **Variation in particulate C and N isotope composition following iron fertilization in two successive phytoplankton communities in the Southern Ocean** *GLOBAL BIOGEOCHEMICAL CYCLES*
Berg, G. M., Mills, M. M., Long, M. C., Bellerby, R., Strass, V., Savoye, N., Roettgers, R., Croot, P. L., Webb, A., Arrigo, K. R.
2011; 25
- **Responses of psbA, hli and ptox genes to changes in irradiance in marine Synechococcus and Prochlorococcus** *AQUATIC MICROBIAL ECOLOGY*
Berg, G. M., Shrager, J., van Dijken, G., Mills, M. M., Arrigo, K. R., Grossman, A. R.
2011; 65 (1): 1-14
- **Influence of atmospheric nutrients on primary productivity in a coastal upwelling region** *GLOBAL BIOGEOCHEMICAL CYCLES*
Mackey, K. R., Van Dijken, G. L., Mazloom, S., Erhardt, A. M., Ryan, J., Arrigo, K. R., Paytan, A.
2010; 24
- **STRATEGIES AND RATES OF PHOTOACCLIMATION IN TWO MAJOR SOUTHERN OCEAN PHYTOPLANKTON TAXA: PHAEOCYSTIS ANTARCTICA (HAPTOPHYTA) AND FRAGILARIOPSIS CYLINDRUS (BACILLARIOPHYCEAE)** *JOURNAL OF PHYCOLOGY*
Kropuenske, L. R., Mills, M. M., Van Dijken, G. L., Alderkamp, A., Berg, G. M., Robinson, D. H., Welschmeyer, N. A., Arrigo, K. R.
2010; 46 (6): 1138-1151
- **Photophysiology in Two Major Southern Ocean Phytoplankton Taxa: Photosynthesis and Growth of Phaeocystis antarctica and Fragilariopsis cylindrus under Different Irradiance Levels** *Annual Meeting of the Society-for-Integrative-and-Comparative-Biology*
Arrigo, K. R., Mills, M. M., Kropuenske, L. R., Van Dijken, G. L., Alderkamp, A., Robinson, D. H.
OXFORD UNIV PRESS INC.2010: 950-66
- **PHOTOPHYSIOLOGY IN TWO SOUTHERN OCEAN PHYTOPLANKTON TAXA: PHOTOSYNTHESIS OF PHAEOCYSTIS ANTARCTICA (PRYMNESIOPHYCEAE) AND FRAGILARIOPSIS CYLINDRUS (BACILLARIOPHYCEAE) UNDER SIMULATED MIXED-LAYER IRRADIANCE** *JOURNAL OF PHYCOLOGY*
Mills, M. M., Kropuenske, L. R., Van Dijken, G. L., Alderkamp, A., Berg, G. M., Robinson, D. H., Welschmeyer, N. A., Arrigo, K. R.
2010; 46 (6): 1114-1127
- **Air-sea flux of CO₂ in the Arctic Ocean, 1998-2003** *JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES*
Arrigo, K. R., Pabi, S., Van Dijken, G. L., Maslowski, W.
2010; 115
- **Stable isotope composition of dissolved inorganic carbon and particulate organic carbon in sea ice from the Ross Sea, Antarctica** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Munro, D. R., Dunbar, R. B., Mucciarone, D. A., Arrigo, K. R., Long, M. C.
2010; 115
- **Responding to climate change: Adelie Penguins confront astronomical and ocean boundaries** *ECOLOGY*
Ballard, G., Toniolo, V., Ainley, D. G., Parkinson, C. L., Arrigo, K. R., Trathan, P. N.
2010; 91 (7): 2056-2069

- **Magnitude of oceanic nitrogen fixation influenced by the nutrient uptake ratio of phytoplankton** *NATURE GEOSCIENCE*
Mills, M. M., Arrigo, K. R.
2010; 3 (6): 412-416
- **Can photoinhibition control phytoplankton abundance in deeply mixed water columns of the Southern Ocean?** *LIMNOLOGY AND OCEANOGRAPHY*
Alderkamp, A., de Baar, H. J., Visser, R. J., Arrigo, K. R.
2010; 55 (3): 1248-1264
- **Ross ice shelf cavity circulation, residence time, and melting: Results from a model of oceanic chlorofluorocarbons** *CONTINENTAL SHELF RESEARCH*
Reddy, T. E., Holland, D. M., Arrigo, K. R.
2010; 30 (7): 733-742
- **Contrasting spring and summer phytoplankton dynamics in the nearshore Southern California Bight** *LIMNOLOGY AND OCEANOGRAPHY*
Santoro, A. E., Nidzieko, N. J., Van Dijken, G. L., Arrigo, K. R., Boehm, A. B.
2010; 55 (1): 264-278
- **Non-Redfield N:P utilization by phytoplankton significantly impacts oceanic nitrogen fixation** *Nature Geoscience*
Mills, M. M., Arrigo, K. R.
2010; 3: 412-416
- **Primary Producers and Sea Ice** *Sea Ice*
Arrigo, K. R., Lizotte, M. P., Mock, T.
edited by Thomas, D. N., Dieckmann, G. S.
Blackwell Science, Ltd., Oxford, UK.2010; 2nd: 283–326
- **Contribution of under-ice primary production to an ice-edge upwelling phytoplankton bloom in the Canadian Beaufort Sea** *GEOPHYSICAL RESEARCH LETTERS*
Mundy, C. J., Gosselin, M., Ehn, J., Gratton, Y., Rosznagel, A., Barber, D. G., Martin, J., Tremblay, J., Palmer, M., Arrigo, K. R., Darnis, G., Fortier, L., Else, et al
2009; 36
- **Photophysiology in two major Southern Ocean phytoplankton taxa: Photoprotection in *Phaeocystis antarctica* and *Fragilariopsis cylindrus*** *LIMNOLOGY AND OCEANOGRAPHY*
Kropuenske, L. R., Mills, M. M., Van Dijken, G. L., Bailey, S., Robinson, D. H., Welschmeyer, N. A., Arrigo, K. R.
2009; 54 (4): 1176-1196
- **Influence of light and temperature on the marine iron cycle: From theoretical to global modeling** *GLOBAL BIOGEOCHEMICAL CYCLES*
Tagliabue, A., Bopp, L., Aumont, O., Arrigo, K. R.
2009; 23
- **Sea ice variability and primary productivity in the Ross Sea, Antarctica, from methylsulphonate snow record** *GEOPHYSICAL RESEARCH LETTERS*
Rhodes, R. H., Bertler, N. A., Baker, J. A., Sneed, S. B., Oerter, H., Arrigo, K. R.
2009; 36
- **Hydrodynamic control of phytoplankton loss to the benthos in an estuarine environment** *LIMNOLOGY AND OCEANOGRAPHY*
Jones, N. L., Thompson, J. K., Arrigo, K. R., Monismith, S. G.
2009; 54 (3): 952-969
- **Coastal phytoplankton blooms in the Southern California Bight: evaluating the roles of land-based and upwelled nutrient delivery** *Limnology and Oceanography*
Santoro, A. E., Nidzieko, N. J., van Dijken, G. L., Arrigo, K. R., Boehm, A. B.
2009; 55: 264-278
- **Coastal Southern Ocean: A strong anthropogenic CO₂ sink** *GEOPHYSICAL RESEARCH LETTERS*
Arrigo, K. R., van Dijken, G., Long, M.
2008; 35 (21)

- **Impact of a shrinking Arctic ice cover on marine primary production** *GEOPHYSICAL RESEARCH LETTERS*
Arrigo, K. R., van Dijken, G., Pabi, S.
2008; 35 (19)
- **Understanding nitrogen limitation in *Aureococcus anophagefferens* (Pelagophyceae) through cDNA and qRT-PCR analysis** *JOURNAL OF PHYCOLOGY*
Berg, G. M., Shrager, J., Gloeckner, G., Arrigo, K. R., Grossman, A. R.
2008; 44 (5): 1235-1249
- **UNDERSTANDING NITROGEN LIMITATION IN AUREOCOCCUS ANOPHAGEFFERENS (PELAGOPHYCEAE) THROUGH cDNA AND qRT-PCR ANALYSIS(1).** *Journal of phycology*
Berg, G. M., Shrager, J., Glöckner, G., Arrigo, K. R., Grossman, A. R.
2008; 44 (5): 1235-1249
- **Primary production in the Southern Ocean, 1997-2006** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Van Dijken, G. L., Bushinsky, S.
2008; 113 (C8)
- **Primary production in the Arctic Ocean, 1998-2006** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Pabi, S., Van Dijken, G. L., Arrigo, K. R.
2008; 113 (C8)
- **Impacts of atmospheric anthropogenic nitrogen on the open ocean** *SCIENCE*
Duce, R. A., Laroche, J., ALTIERI, K., Arrigo, K. R., BAKER, A. R., Capone, D. G., CORNELL, S., Dentener, F., Galloway, J., Ganeshram, R. S., Geider, R. J., Jickells, T., Kuypers, et al
2008; 320 (5878): 893-897
- **Alternative photosynthetic electron flow to oxygen in marine *Synechococcus*** *BIOCHIMICA ET BIOPHYSICA ACTA-BIOENERGETICS*
Bailey, S., Melis, A., Mackey, K. R., Cardol, P., Finazzi, G., van Dijken, G., Berg, G. M., Arrigo, K., Shrager, J., Grossman, A.
2008; 1777 (3): 269-276
- **Carbon cycle - Marine manipulations** *NATURE*
Arrigo, K. R.
2007; 450 (7169): 491-492
- **The role of thermal and mechanical processes in the formation of the Ross Sea summer polynya** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Reddy, T. E., Arrigo, K. R., Holland, D. M.
2007; 112 (C7)
- **Interannual variation in air-sea CO₂ flux in the Ross Sea, Antarctica: A model analysis** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Van Dijken, G. L.
2007; 112 (C3)
- **A method for representing and developing process models** *ECOLOGICAL COMPLEXITY*
Borrett, S. R., Bridewell, W., Langley, P., Arrigo, K. R.
2007; 4 (1-2): 1-12
- **Physical control of primary productivity in Arctic and Antarctic polynyas** *Polynyas: Windows to the World*
Arrigo, K. R.
edited by Smith, W. O., Barber, D.
Elsevier, Amsterdam.2007
- **Satellite estimation of marine particulate organic carbon in waters dominated by different phytoplankton taxa** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Pabi, S., Arrigo, K. R.
2006; 111 (C9)
- **Constraints on the extent of the Ross Sea phytoplankton bloom** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Reddy, T. E., Arrigo, K. R.

2006; 111 (C7)

- **Processes governing the supply of iron to phytoplankton in stratified seas** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Tagliabue, A., Arrigo, K. R.
2006; 111 (C6)
- **Examination of diel changes in global transcript accumulation in *Synechocystis* (cyanobacteria)** *JOURNAL OF PHYCOLOGY*
Labiosa, R. G., Arrigo, K. R., Tu, C. J., Bhaya, D., Bay, S., Grossman, A. R., Shrager, J.
2006; 42 (3): 622-636
- **Inductive revision of quantitative process models** *4th International Workshop on Environmental Applications of Machine Learning (EAML)*
Asgharbeygi, N., Langley, P., Bay, S., Arrigo, K.
ELSEVIER SCIENCE BV.2006: 70-79
- **A comparison of global estimates of marine primary production from ocean color** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Carr, M., Friedrichs, M. A., Schmeltz, M., Aita, M. N., Antoine, D., Arrigo, K. R., Asanuma, I., Aumont, O., Barber, R., Behrenfeld, M., Bidigare, R., Buitenhuis, E. T., Campbell, et al
2006; 53 (5-7): 741-770
- **Marine microorganisms and global nutrient cycles** *NATURE*
Arrigo, K. R.
2005; 437 (7057): 349-355
- **Decadal-scale changes in the climate and biota of the Pacific sector of the Southern Ocean, 1950s to the 1990s** *ANTARCTIC SCIENCE*
Ainley, D. G., Clarke, E. D., Arrigo, K., Fraser, W. R., Kato, A., Barton, K. J., Wilson, P. R.
2005; 17 (2): 171-182
- **Agricultural runoff fuels large phytoplankton blooms in vulnerable areas of the ocean** *NATURE*
Beman, J. M., Arrigo, K. R., Matson, P. A.
2005; 434 (7030): 211-214
- **Iron in the Ross Sea: 2. Impact of discrete iron addition strategies** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Tagliabue, A.
2005; 110 (C3)
- **Iron in the Ross Sea: 1. Impact on CO₂ fluxes via variation in phytoplankton functional group and non-Redfield stoichiometry** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Tagliabue, A., Arrigo, K. R.
2005; 110 (C3)
- **Large scale importance of sea ice biology in the Southern Ocean** *ANTARCTIC SCIENCE*
Arrigo, K. R., Thomas, D. N.
2004; 16 (4): 471-486
- **Increased exposure of Southern Ocean phytoplankton to ultraviolet radiation** *GEOPHYSICAL RESEARCH LETTERS*
Lubin, D., Arrigo, K. R., van Dijken, G. L.
2004; 31 (9)
- **Annual cycles of sea ice and phytoplankton in Cape Bathurst polynya, southeastern Beaufort Sea, Canadian Arctic** *GEOPHYSICAL RESEARCH LETTERS*
Arrigo, K. R., van Dijken, G. L.
2004; 31 (8)
- **Annual changes in sea-ice, chlorophyll a, and primary production in the Ross Sea, Antarctica** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*
Arrigo, K. R., van Dijken, G. L.
2004; 51 (1-3): 117-138
- **The interplay between upwelling and deep convective mixing in determining the seasonal phytoplankton dynamics in the Gulf of Aqaba: Evidence from SeaWiFS and MODIS** *LIMNOLOGY AND OCEANOGRAPHY*

Labiosa, R. G., Arrigo, K. R.
2003; 48 (6): 2355-2368

- **Physical control of chlorophyll a, POC, and TPN distributions in the pack ice of the Ross Sea, Antarctica** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., ROBINSON, D. H., Dunbar, R. B., Leventer, A. R., Lizotte, M. P.
2003; 108 (C10)
- **Phytoplankton dynamics within 37 Antarctic coastal polynya systems** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., van Dijken, G. L.
2003; 108 (C8)
- **Impact of iceberg C-19 on Ross Sea primary production** *GEOPHYSICAL RESEARCH LETTERS*
Arrigo, K. R., van Dijken, G. L.
2003; 30 (16)
- **A coupled ocean-ecosystem model of the Ross Sea: 2. Iron regulation of phytoplankton taxonomic variability and primary production** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Worthen, D. L., ROBINSON, D. H.
2003; 108 (C7)
- **Impact of a deep ozone hole on Southern Ocean primary production** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Lubin, D., van Dijken, G. L., Holm-Hansen, O., Morrow, E.
2003; 108 (C5)
- **A comparison between excess barium and barite as indicators of carbon export** *PALEOCEANOGRAPHY*
Eagle, M., Paytan, A., Arrigo, K. R., van Dijken, G., MURRAY, R. W.
2003; 18 (1)
- **Anomalously low zooplankton abundance in the Ross Sea: An alternative explanation** *LIMNOLOGY AND OCEANOGRAPHY*
Tagliabue, A., Arrigo, K. R.
2003; 48 (2): 686-699
- **Discovering ecosystem models from time-series data** *6th International Conference on Discovery Science*
George, D., Saito, K., Langley, P., Bay, S., Arrigo, K. R.
SPRINGER-VERLAG BERLIN.2003: 141-152
- **Evaluating photosynthetic carbon fixation during *Phaeocystis antarctica* blooms** *Biogeochemistry of the Ross Sea*
Robinson, D. H., Arrigo, K. R., DiTullio, G. R., Lizotte, M. P.
edited by DiTullio, G. R., Dunbar, R. B.
2003: 77-91
- **A coupled ocean-ecosystem model of the Ross Sea. Part 1: Interannual variability of primary production and phytoplankton community structure** *Biogeochemistry of the Ross Sea*
Worthen, D. L., Arrigo, K. R.
edited by DiTullio, G. R., Dunbar, R. B.
2003: 93-105
- **Non-Redfield production and export of marine organic matter: A recurrent part of the annual cycle in the Ross Sea, Antarctica** *Biogeochemistry of the Ross Sea*
Dunbar, R. B., Arrigo, K. R., Lutz, M., DiTullio, G. D., Leventer, A. R., Lizotte, M. P., Van Woert, M. P., Robinson, D. H.
edited by DiTullio, G. R., Dunbar, R. B.
2003: 179-195
- **Assessing the ecological impact of the Antarctic ozone hole using multisensor satellite data** *Conference on Ultraviolet Ground- and Space-based Measurements, Models and Effects III*
Lubin, D., Arrigo, K., Holm-Hansen, O.
SPIE-INT SOC OPTICAL ENGINEERING.2003: 245-253
- **Primary production in sea ice** *Sea Ice: An Introduction to its physics, biology, chemistry and geology*
Arrigo, K. R.

edited by Thomas, D. N., Dieckmann, G. S.
Blackwell Publishers, Oxford, UK.2003

- **The vertical flux of particulate matter in the polynya of Terra Nova Bay. Part I. Chemical constituents** *2nd International Conference on the Ross Sea*
Accornero, A., Manno, C., Arrigo, K. R., Martini, A., Tucci, S.
CAMBRIDGE UNIV PRESS.2003: 119–32
- **Taxon-specific differences in C/P and N/P drawdown for phytoplankton in the Ross Sea, Antarctica** *GEOPHYSICAL RESEARCH LETTERS*
Arrigo, K. R., Dunbar, R. B., Lizotte, M. P., ROBINSON, D. H.
2002; 29 (19)
- **Comparison of algorithms for estimating ocean primary production from surface chlorophyll, temperature, and irradiance** *GLOBAL BIOGEOCHEMICAL CYCLES*
Campbell, J., Antoine, D., Armstrong, R., Arrigo, K., Balch, W., Barber, R., Behrenfeld, M., Bidigare, R., Bishop, J., Carr, M. E., Esaias, W., Falkowski, P., Hoepffner, et al
2002; 16 (3)
- **Ecological impact of a large Antarctic iceberg** *GEOPHYSICAL RESEARCH LETTERS*
Arrigo, K. R., van Dijken, G. L., Ainley, D. G., Fahnestock, M. A., Markus, T.
2002; 29 (7)
- **Global mapping of underwater UV irradiances and DNA-weighted exposures using total ozone mapping spectrometer and sea-viewing wide field-of-view sensor data products** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Vasilkov, A., Krotkov, N., Herman, J., McClain, C., Arrigo, K., Robinson, W. T.
2001; 106 (C11): 27205-27219
- **Atmospheric forcing of the Ross Sea polynya during Summer** *Sixth Conference on Polar Meteorology and Oceanography, American Meteorological Society*
Bromwich, D. H., Monaghan, A. J., Rogers, A. N., Van Woert, M. L., Arrigo, K. R.
2001: J23–J26
- **The sulfur-isotopic composition of cenozoic seawater sulfate: Implications for pyrite burial and atmospheric oxygen** *INTERNATIONAL GEOLOGY REVIEW*
Paytan, A., Arrigo, K. R.
2000; 42 (6): 491-498
- **Phytoplankton taxonomic variability in nutrient utilization and primary production in the Ross Sea** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., DiTullio, G. R., Dunbar, R. B., Robinson, D. H., VanWoert, M., Worthen, D. L., Lizotte, M. P.
2000; 105 (C4): 8827-8845
- **Rapid and early export of Phaeocystis antarctica blooms in the Ross Sea, Antarctica** *NATURE*
DiTullio, G. R., Grebmeier, J. M., Arrigo, K. R., Lizotte, M. P., ROBINSON, D. H., Leventer, A., Barry, J. B., VanWoert, M. L., Dunbar, R. B.
2000; 404 (6778): 595-598
- **Phytoplankton community structure and the drawdown of nutrients and CO₂ in the Southern Ocean** *SCIENCE*
Arrigo, K. R., ROBINSON, D. H., Worthen, D. L., Dunbar, R. B., DiTullio, G. R., VanWoert, M., Lizotte, M. P.
1999; 283 (5400): 365-367
- **Atmospheric forcing of the ross sea polynya during (Spring)** *Fifth Conference on Polar Meteorology and Oceanography*
Rogers, A. N., Bromwich, D. H., Arrigo, K. R.
1999: 448–451
- **Photophysiological evidence of nutrient limitation of platelet ice algae in McMurdo Sound, Antarctica** *JOURNAL OF PHYCOLOGY*
Robinson, D. H., Arrigo, K. R., Kolber, Z., Gosselin, M., Sullivan, C. W.
1998; 34 (5): 788-797
- **Bio-optical properties of the southwestern Ross Sea** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., ROBINSON, D. H., Worthen, D. L., Schieber, B., Lizotte, M. P.
1998; 103 (C10): 21683-21695

- **Primary production in Southern Ocean waters** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Worthen, D., Schnell, A., Lizotte, M. P.
1998; 103 (C8): 15587-15600
- **Physical forcing of phytoplankton dynamics in the southwestern Ross Sea** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Weiss, A. M., Smith, W. O.
1998; 103 (C1): 1007-1021
- **The impact of chromophoric dissolved organic matter on UV inhibition of primary productivity in the open ocean** *Marine Ecology Progress Series*
Arrigo, K. R., Brown, C. W.
1998; 140: 207-216
- **Primary production in the Antarctic ice pack** *Antarctic sea ice biological processes, interactions, and variability*
Arrigo, K. R., Worthen, D. L., Dixon, P., Lizotte, M. P.
edited by Arrigo, K. R., Lizotte, M. P.
1998: 23-43
- **A high resolution study of the platelet ice ecosystem in McMurdo Sound, Antarctica: Photosynthetic and bio-optical characteristics of a dense microalgal bloom** *Marine Ecology Progress Series*
Arrigo, K. R., Robinson, D. H., Sullivan, C. W.
1998; 98: 173-185
- **Photophysiological evidence of nutrient limitation in the platelet ice of McMurdo Sound, Antarctica** *Journal of Phycology*
Robinson, D. H., Arrigo, K. R., Kolber, Z., Gosselin, M., Sullivan, C. W.
1998; 34: 788-797
- **Physical forcing of phytoplankton dynamics in the western Ross Sea** *Journal of Geophysical Research*
Arrigo, K. R., Weiss, A. M., Smith, W. O.
1998; 103: 1007-1021
- **Primary production in Antarctic sea ice** *SCIENCE*
Arrigo, K. R., Worthen, D. L., Lizotte, M. P., Dixon, P., Dieckmann, G.
1997; 276 (5311): 394-397
- **Observations and simulations of physical and biological processes at ocean weather station P, 1951-1980** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
McClain, C. R., Arrigo, K., Tai, K. S., Turk, D.
1996; 101 (C2): 3697-3713
- **SeaDAS: A processing package for ocean color satellite imagery** *12th International Conference on Interactive Information and Processing Systems for Meteorology, Oceanography, and Hydrology/5th Symposium on Education*
Fu, G., Schieber, B., Settle, K., DARZI, M., McClain, C. R., Arrigo, K.
AMER METEOROLOGICAL SOC. 1996: 451-456
- **HIGH-RESOLUTION STUDY OF THE PLATELET ICE ECOSYSTEM IN MCMURDO SOUND, ANTARCTICA - BIOMASS, NUTRIENT, AND PRODUCTION PROFILES WITHIN A DENSE MICROALGAL BLOOM** *MARINE ECOLOGY PROGRESS SERIES*
Arrigo, K. R., Dieckmann, G., Gosselin, M., ROBINSON, D. H., Fritsen, C. H., Sullivan, C. W.
1995; 127 (1-3): 255-268
- **MICROALGAL LIGHT-HARVESTING IN EXTREME LOW-LIGHT ENVIRONMENTS IN MCMURDO SOUND, ANTARCTICA** *JOURNAL OF PHYCOLOGY*
ROBINSON, D. H., Arrigo, K. R., Iturriaga, R., Sullivan, C. W.
1995; 31 (4): 508-520
- **Adaptation to low irradiance and restricted spectral distribution by Antarctic microalgae from under-ice habitats** *Journal of Phycology*
Robinson, D. H., Arrigo, K. R., Iturriaga, R., Sullivan, C. W.
1995; 31: 508-520
- **IMPACT OF OZONE DEPLETION ON PHYTOPLANKTON GROWTH IN THE SOUTHERN-OCEAN - LARGE-SCALE SPATIAL AND TEMPORAL VARIABILITY** *MARINE ECOLOGY PROGRESS SERIES*

Arrigo, K. R.
1994; 114 (1-2): 1-12

- **SPRING PHYTOPLANKTON PRODUCTION IN THE WESTERN ROSS SEA** *SCIENCE*
Arrigo, K. R., McClain, C. R.
1994; 266 (5183): 261-263
- **A HIGH RESOLUTION BIO-OPTICAL MODEL OF MICROALGAL GROWTH: TESTS USING SEA-ICE ALGAL COMMUNITY TIME-SERIES DATA** *LIMNOLOGY AND OCEANOGRAPHY*
Arrigo, K. R., Sullivan, C. W.
1994; 39 (3): 609-631
- **DISTRIBUTIONS OF PHYTOPLANKTON BLOOMS IN THE SOUTHERN-OCEAN** *SCIENCE*
Sullivan, C. W., Arrigo, K. R., McClain, C. R., Comiso, J. C., Firestone, J.
1993; 262 (5141): 1832-1837
- **A HIGH-RESOLUTION STUDY OF THE PLATELET ICE ECOSYSTEM IN MCMURDO SOUND, ANTARCTICA - PHOTOSYNTHETIC AND BIOOPTICAL CHARACTERISTICS OF A DENSE MICROALGAL BLOOM** *MARINE ECOLOGY PROGRESS SERIES*
Arrigo, K. R., ROBINSON, D. H., Sullivan, C. W.
1993; 98 (1-2): 173-185
- **A SIMULATED ANTARCTIC FAST ICE ECOSYSTEM** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Kremer, J. N., Sullivan, C. W.
1993; 98 (C4): 6929-6946
- **THE INFLUENCE OF SALINITY AND TEMPERATURE COVARIATION ON THE PHOTOPHYSIOLOGICAL CHARACTERISTICS OF ANTARCTIC SEA ICE MICROALGAE** *JOURNAL OF PHYCOLOGY*
Arrigo, K. R., Sullivan, C. W.
1992; 28 (6): 746-756
- **A HIGH-RESOLUTION SAMPLER FOR NUTRIENT AND CHLOROPHYLL A PROFILES OF THE SEA ICE PLATELET LAYER AND UNDERLYING WATER COLUMN BELOW FAST ICE IN POLAR OCEANS - PRELIMINARY-RESULTS** *MARINE ECOLOGY PROGRESS SERIES*
Dieckmann, G. S., Arrigo, K., Sullivan, C. W.
1992; 80 (2-3): 291-300
- **A BIOOPTICAL MODEL OF ANTARCTIC SEA ICE** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
Arrigo, K. R., Sullivan, C. W., Kremer, J. N.
1991; 96 (C6): 10581-10592