

MEENAKSHI WADHWA
CURRICULUM VITAE
MARCH 2025

Director, School of Earth and Space Exploration
Foundation and Regents Professor
Arizona State University
Box 876004
Tempe, AZ 85287-6004

BIOGRAPHICAL SUMMARY

Meenakshi Wadhwa is an academic leader with a background in the earth and planetary sciences. She is director of the School of Earth and Space Exploration, one of the most research active degree-granting units at Arizona State University, where she oversees research and educational programs in the geosciences, biogeosciences, astrobiology, planetary sciences, astronomy, astrophysics, cosmology, engineering for exploration, and science education. She is also appointed as Distinguished Visiting Scientist at Caltech's Jet Propulsion Laboratory and serves as NASA's Principal Scientist for the Mars Sample Return Program. She was recently awarded the NASA Exceptional Public Service Medal for her 4+ years of leadership of the Science Committee of the NASA Advisory Council. Her research group is known for developing novel methodologies for high precision isotope analyses to understand the time scales and processes involved in the formation of the Solar System and planets. She is a member of the National Academy of Sciences, and a recipient of the J. Lawrence Smith medal of the National Academy of Sciences, the Fulbright-Nehru Academic and Professional Excellence Award, the Guggenheim Fellowship, and the Nier Prize of the Meteoritical Society. She is a Fellow of the American Geophysical Union and the Meteoritical Society, as well as a Geochemistry Fellow of the Geochemical Society and the European Association of Geochemistry.

EDUCATION

Ph.D. in Earth and Planetary Sciences, Washington University, St. Louis, 1994
M.S. (with Honors) in Geology, Panjab University, 1989
B.S. (with Honors) in Geology, minors in Physics and Chemistry, Panjab University, 1988

PROFESSIONAL EXPERIENCE

Arizona State University

Director, School of Earth and Space Exploration (SESE), Arizona State University, 2019 – present

- Leadership of one of the most research-active multidisciplinary degree-granting units at ASU, overseeing 75 faculty (15% of which are jointly appointed with other units such as the School of Molecular Sciences, School of Life Sciences, School of Mathematical and Statistical Sciences, and School of Ocean Futures), with about 350 personnel on payroll. Currently, SESE has 140 graduate students enrolled in 12 graduate degree programs (several ranked in the top 10 by US News and World Report), and over 1000 undergraduate majors enrolled in 8 (on campus and/or online) degree programs. During FY2024, \$131M in proposals were submitted, with annual research expenditures of \$50M (ranked in top 5 in the NSF Higher Education Research and Development ranking for the geological sciences and for NASA expenditures).
- Launched educational and workforce development initiatives focused on student success, including:
 - Three new fully online undergraduate degree programs in SESE: BS in Astronomical and Planetary Sciences in 2020, and BS and BA degrees in Earth and Environmental Sciences in 2024; created research opportunities for online students in these degrees to improve student retention and success. In total, SESE's undergraduate enrollment has increased by ~120% in the last 5 years.
 - New reciprocal accelerated (4+1) MS degrees in collaboration with ASU's Fulton Schools of Engineering in 2023 and 2024.

- SESE’s first-ever “Virtual Classroom” leveraging Dreamscape Learn technologies to facilitate student learning of fundamental concepts in the geosciences and astrophysics through exploration, storytelling, and state-of-the-art VR technologies.
- Led new development and fundraising efforts in support of SESE’s strategic priorities that resulted in nearly \$17M from philanthropic giving in the last 5 years, leading to the establishment of a new research center (Beus Center for Cosmic Foundations), the re-naming of the Buseck Center for Meteorite Studies (formerly the Center for Meteorite Studies) in SESE, new student scholarship opportunities, and enhancement of technology infrastructure.
- Appointed 25 new faculty (18 fulltime appointments in SESE, and 7 joint appointments with other units at ASU), resulting in nearly 15% growth in faculty in the last 5 years even accounting for retirements and departures.
- Engaged with ASU leadership during acquisition of the Bermuda Institute of Ocean Sciences (BIOS) and the establishment of a new School of Ocean Futures (SOF) in 2021; coordinated and collaborated with SOF leadership on the joint appointments of faculty between SESE and SOF and developing the curricula for SOF degrees (including cross-listed courses).
- Facilitated the development of SESE’s first-ever Strategic Plan in 2020; example outcomes thus far from implementation of this plan include: establishment of a Code of Conduct; establishment of mentoring for faculty, graduate and undergraduate students; establishment of a faculty peer teaching evaluation process; complete overhaul of graduate admissions and doctoral candidacy qualification processes to ensure student success; establishment of an undergraduate council; establishment and maintenance of an up-to-date website for undergraduate research opportunities.
- Appointed three Presidential Postdoctoral Fellows in 2024 as part of an ASU Presidential initiative to support the career development of future ASU faculty (these postdoctoral fellows are expected to transition to faculty positions within 2 years).
- Oversaw major infrastructure renovations of key SESE spaces on the Tempe campus: ~\$8M renovation of SESE spaces (offices, labs, and communal spaces) in Physical Sciences F-Wing; ~\$5M renovation of SESE laboratory spaces and technology refreshes in Physical Sciences D-Wing and in Interdisciplinary Science and Technology Building IV (ISTB4).
- Extensive media and communications experience including managing crises and promoting institutional and unit branding. Renewed focus on SESE’s marketing and communications efforts for student recruitment and advancement of research and education programs, including overhaul of website and promotional materials and SESE presence at significant conferences and events. Instituted monthly Community Conversations and annual “State of SESE” presentations to keep all SESE students, faculty, staff, and researchers informed and connected, and to promote a culture of transparency.
- Worked with ASU’s Office of Government and Community Engagement, and engaged with state and federal staffers and lawmakers, to advocate for programs in support of SESE and ASU.
- Achieved the above while managing the unprecedented challenges of COVID in collaboration and coordination with institutional leadership at ASU.
- Examples of broader professional leadership during this time:
 - Currently serving as NASA’s Principal Scientist for the Mars Sample Return (MSR) Program; the MSR program is a multi-agency (NASA and ESA), multi-spacecraft, multi-billion-dollar path-breaking program to return Mars samples presently being collected by the Mars 2020 Perseverance rover.
 - Chaired the Science Committee of the NASA Advisory Council (4+ years)
 - Served as President of the Meteoritical Society (2 years, with 2 years as President Elect, and 2 years as Past President)

Director, Center for Meteorite Studies, Arizona State University, 2006 – 2019

- Leadership of one of the earliest-established research institutes at ASU (founded in 1961), the Center for Meteorite Studies (CMS). The CMS (now called the Buseck Center for Meteorite Studies) includes the largest university-based collection of meteorites (over 40,000 specimens). Primary responsibility of

this position was to fulfill the Center's mission of creating and sharing new knowledge in the field of meteoritics and allied disciplines.

- Increased by four-fold the total grants activity/research expenditures in the Center in the 2008-2018 period compared to the previous decade.
- Facilitated in-kind donations with a valuation more than \$2M during this same period, and a record number of new acquisitions to the Center's world-renowned collection of meteorites.
- Oversaw the design and construction of a state-of-the-art vault for the Center's collection and the meteorite exhibit gallery in the Interdisciplinary Science and Technology Building IV (ISTB4).
- Overhauled curation activities, web presence and outreach for the Center, resulting in increase of requests for samples by the research community and increased visibility within and beyond the university.
- Examples of broader professional leadership during this time:
 - Served as member of the Space Studies Board of the National Academies of Sciences, Engineering, and Medicine.
 - Participated in the American Council on Education (ACE) Fellows Program. This is a highly selective national, individualized, year-long academic leadership development program providing opportunity for on-the-job learning. During the ACE Fellowship year, I shadowed the President at ASU (Michael M. Crow) and at the University of Houston (Renu Khator), and worked to advance programs involving student success initiatives, inclusive excellence initiatives, institutional advancement and development, and engagement of state government and community stakeholders.
 - Participated in the Higher Education Resource Services (HERS) Leadership Institute, University of Denver.
 - Served as member of the President's Women-in-Leadership Council at ASU, where I helped to develop and implement strategies for the recruitment and retention of women faculty at ASU.
 - Served as Provost's Faculty Fellow in the Office of Provost at ASU for a two-year period, during which time I assisted in ASU's global and international initiatives to increase international student enrollment and retention. I co-chaired a university-wide committee comprised of university leadership across ASU's four campuses (Tempe, Downtown Phoenix, West, and Polytechnic) to develop a strategic plan to improve the international undergraduate and graduate student experience.

Professor, School of Earth and Space Exploration, Arizona State University, 2006 – present

- Director of the Isotope Cosmochemistry and Geochronology Laboratory, equipped with two multicollector inductively coupled plasma mass spectrometers (a Thermo Neptune MC-ICPMS and a Thermo Neoma MC-ICPMS) and an excimer laser ablation system.
- Established a well-funded research program, bringing in over \$15M in research grants as PI and contributing to an additional \$26M as Co-I; currently, this includes a ~\$3M Caltech JPL subcontract (2021-present) for my role as Mars Sample Return Principal Scientist, as well as a NASA Science Activation program award of nearly \$6M over 5 years (2021-2025).
- Taught a variety of courses for undergraduates and graduate students, with excellent student evaluations.
- Serving as science team member on NASA's Mars 2020 Perseverance mission (Returned Sample Science Working Group) and collaborator on NASA's Mars Science Laboratory Curiosity mission; served as member of the Initial Analysis Chemistry Team for JAXA's Hayabusa2 mission and Co-Investigator on NASA's Genesis NASA mission.
- Served as Deputy Principal Investigator for the NASA New Frontiers CONDOR Comet Surface Sample Return mission proposal (PI, C. Raymond).
- Served as Principal Investigator for the NASA Sample Collection for Investigation of Mars (SCIM) mission proposal.
- Appointed Regents Professor for the State of Arizona (2023 – present) and Foundation Professor in the School of Earth and Space Exploration, Arizona State University (2021 – present).

- Appointed Distinguished Visiting Scientist, Caltech Jet Propulsion Laboratory (2021 – present).
- Appointed Visiting Scientist (sabbatical) at the Lunar and Planetary Institute in Houston (Jan – July 2013) and Visiting Faculty (sabbatical) in the Department of Earth, Environmental and Planetary Sciences at Rice University (Aug – Dec 2012).

The Field Museum

Curator/Associate Curator/Assistant Curator, Department of Geology, The Field Museum, 1995 – 2006

- Core responsibilities in this tenure-track faculty appointment were in the areas of research, education (public outreach), and service.
- Initiated a well-funded research program in meteoritics and cosmochemistry. In doing so, established the first complex geochemical analytical (mass spectrometry) facility including an associated ultra-clean laboratory for sample preparation at the Field Museum.
- Responsible for the acquisition, management, curation, and allocation of a world-class collection of meteorites for the benefit of the broader science community.
- Oversaw the development and installation of several exhibits and routinely participated in public outreach activities.
- Provided extensive support of principal-level fundraising activities, including cultivation and stewardship of gifts through interactions with high-capacity donors.
- Through appointments at the University of Chicago (see below), taught courses and participated in mentoring undergraduate and graduate students.
- Co-founded a research center (Chicago Center for Cosmochemistry or C³) that brought together instrument developers and researchers in the Earth and planetary sciences, chemistry and astrophysics from three local institutions (the Field Museum, University of Chicago, and Argonne National Laboratory) that excelled in each of these areas.
- Other activities while in this position:
 - Appointed as Visiting Scholar (sabbatical), Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, Dec 2005 – March 2006
 - Appointed as Lecturer and Senior Research Associate, Department of Geophysical Sciences, University of Chicago, Dec 2003 – Sept 2006
 - Appointed as Lecturer and Research Scientist, Department of Geophysical Sciences, University of Chicago, Jan 1997 – Dec 2003
 - Appointed as Visiting Scholar, Department of Geophysical Sciences, University of Chicago, June 1995 – Dec 1996

University of California at San Diego

Postdoctoral Research Geochemist, Geosciences Research Division, University of California at San Diego, 1994 – 1995

- Conducted research projects involving investigations of radiogenic isotope systematics in planetary materials to date early Solar System events using thermal ionization mass spectrometry.

HONORS AND AWARDS

NASA Group Achievement Award, Mars 2020 Sample Depot Development Team, 2024

AGU College of Fellows Distinguished Lecturer, 2024-2025

Appointed Regents Professor by the Arizona Board of Regents, 2023

Elected member of the National Academy of Sciences, 2023

Robert M. Walker Distinguished Lecturer, McDonnell Center for the Space Sciences, Washington University in St. Louis, 2023

Yervant Terzian Lecturer, Department of Astronomy, Cornell University, 2023

James Arnold Endowed Lecturer, Department of Chemistry and Biochemistry, University of California at San Diego, 2023

NASA Exceptional Public Service Medal, 2022

J. Lawrence Smith Medal, The National Academy of Sciences, 2021
Geochemistry Fellow, Geochemical Society and European Association of Geochemistry, 2021
Foundation Professor, Arizona State University, 2021
Baldwin Frontiers in Geology Lecturer, Miami University, 2020
Northrup Distinguished Lecturer, Department of Earth and Planetary Sciences, University of New Mexico, 2019
Fellow, American Geophysical Union, 2019
American Council on Education Fellowship, 2018-2019
Shoemaker Lecturer, American Geophysical Union Fall Meeting, 2016
Prof. Sukheswala Memorial – TERRA Lecturer, St. Xavier's College, Mumbai, India, 2016
Fulbright-Nehru Academic and Professional Excellence Award, 2015 – 2016
Shoemaker Lecturer, Beyond Center, Arizona State University, 2014
Visiting Scientist, Lunar and Planetary Institute, 2013
Visiting Faculty, Rice University, 2012
Fellow, Explorers Club, 2012
Fellow, Wings WorldQuest, 2007
Fellow, Meteoritical Society, 2006
Guggenheim Fellowship, 2005 – 2006
Visiting Scholar, California Institute of Technology, 2005 – 2006
Wings WorldQuest Women of Discovery Award (Air and Space), 2003
Nier Prize of the Meteoritical Society, 2000
Asteroid 8356 named (8356) *Wadhwa* by International Astronomical Union, 1999
Antarctica Service Medal, 1993
McDonnell Center Graduate Fellowship, 1990 – 1992
University Fellowship, Washington University, 1989 – 1990
University Grants Commission Fellowship, Panjab University, 1988 – 1989

PROFESSIONAL SOCIETIES

American Association for the Advancement of Science
American Geophysical Union (Fellow)
European Association of Geochemistry (Geochemistry Fellow)
Geochemical Society (Geochemistry Fellow)
Meteoritical Society (Fellow)
The Explorers Club (Fellow)

PROFESSIONAL SERVICE

Member, Science Advisory Board, SETI Institute, 2024 – present
Member, Washington University McDonnell Center for the Space Sciences Advisory Council, 2024 – present
Member, Universities Space Research Association (USRA) Lunar and Planetary Institute Science Council, 2022 – present
Mentor, Brooke Owens Fellowship Program, 2016 – present
Member, The National Academies of Sciences, Engineering, and Medicine, Intelligence Science and Technology Experts Group (ISTEG), 2015 – 2024 (program close)
Member, Academic Program Review Committee, Department of Earth and Planetary Sciences, University of California at Santa Cruz, 2024
Member, Initial Analysis Chemistry Team for Chemistry, JAXA's Hayabusa2 sample return mission to asteroid Ryugu, 2018 – 2023
Member, Editorial Board for *Scientific Reports*, a Nature Research journal, 2018 – 2023
Member, Academic Program Review Committee, Department of Earth, Environmental and Planetary Sciences, Rice University, 2022
Member, NASA Advisory Council, 2018 – 2022

Chair, NASA Advisory Council Science Committee, 2018 – 2022 (member, 2017 – 2018)

Member, Academic Program Review Committee, Morton K. Blaustein Department of Earth and Planetary Sciences, Johns Hopkins University, 2021

Member, Academic Program Review Committee, School of Earth and Atmospheric Sciences, Georgia Institute of Technology, 2021

Member, Academic Program Review Committee, Department of Earth and Planetary Sciences, University of New Mexico, 2021

Member, NASA-ESA Mars Sample Return Caching Strategy Steering Committee, 2020

Member, NASA-ESA Mars Sample Planning Group 2 (MSPG-2), 2020

Member, NASA Mars Sample Return Independent Review Board, 2020

President, The Meteoritical Society, 2019 – 2020 (President Elect, 2017 – 2018; Past President, 2021 – 2022)

Member, Review panel for NASA Science Mission Directorate Research and Analysis program, 2019

Member, NASA-ESA Mars Sample Planning Group 1 (MSPG1), 2018 – 2019

Member, AGU Robert Cowen Award for Sustained Achievement in Science Journalism selection committee, 2017 – 2019

Member, Astronaut Scholarship Foundation's Neil Armstrong Award of Excellence selection committee, 2017 – 2019

Member, International Mars Sample Return Objectives and Samples Team (iMOST), 2018

Convener, Workshop on Role of Sample Return in Addressing Major Scientific Questions in Planetary Sciences, International Space Science Institute, Bern, Switzerland, 2018

Vice-President, Meteoritical Society, 2017 – 2018

Member, The National Academies of Sciences, Engineering, and Medicine, Space Studies Board Executive Committee, 2016 – 2017

Member, The National Academies of Sciences, Engineering, and Medicine, Space Studies Board, 2012 – 2017

Member, NASA Advisory Council's Planetary Protection Subcommittee, 2015 – 2016

Member, Review panels for NASA Science Mission Directorate Research and Analysis programs, 2015 – 2016

Member, AGU David Perlman Award for Excellence in Science Journalism selection committee, 2015 – 2016

Member, Elements Magazine Advisory Board, 2009 – 2016

Member, Ad hoc panel of experts (Planetary Protection) convened by The National Academies NRC, 2014 – 2015

Member, The National Academies NRC Committee on the Assessment of NASA Science Mission Directorate 2014 Science Plan, 2013

Chair, Audit Committee of the Meteoritical Society, 2013; member, 2011 – 2013

Co-Convener, Lunar Highlands Workshop, 2012

Chair, NASA Curation and Analysis Planning Team for Extraterrestrial Materials (CAPTEM), 2009 – 2012

Member, Planetary Science Subcommittee of the NASA Advisory Council, 2009 – 2012

Theme Chair (Cosmochemistry, Planet Formation), Goldschmidt Conference, 2011

Member, Organizing Committee, Workshop on Formation of the First Solids in the Solar System, 2011

Invited Nominator, MacArthur Foundation Fellows Program, 2011, 2005

Invited External Member, Faculty Search Committee, ETH Zurich, 2010 – 2011

Invited External Member, Faculty Search Committee, Center for Star and Planet Formation, University of Copenhagen, 2010

Chair, Planetary Conditions for Life sub-panel, NASA Exobiology Review Panel, 2009

Chair, McKay Award Committee of the Meteoritical Society, 2009

Member, National Academies NRC Committee on Planetary Protection Requirements for Mars Sample Return Missions, 2008 – 2009

Member, NASA Cosmochemistry Review Panel, 2008

Member, NASA Discovery and Scout Mission Capabilities Expansion Review Panel, 2008

Chair, Meteoritical Society Pellas-Ryder Committee, 2008; member, 2006 – 2008
 Member, Science Steering Committee, 5th Astrobiology Science Conference, 2007 – 2008
 Member, National Academies NRC Committee on Astrobiology Strategy for the Exploration of Mars, 2006 – 2008
 Member, National Academies NRC Committee on Origins and Evolution of Life, 2005 – 2008
 Member, NASA Cosmochemistry Program Management Operations Working Group, 2005 – 2008
 Member, Universities Space Research Association (USRA) Lunar and Planetary Institute Science Council, 2002 – 2008
 Member, NASA Origins of Solar Systems Review Panel, 2007
 Co-Chair, Planetary Conditions for Life sub-panel, NASA Exobiology Review Panel, 2007
 Member, Program Committee, 70th Annual Meteoritical Society Meeting, 2007
 Member, Nominations Committee of the Meteoritical Society, 2007
 Member, Organizing Committee, Early Planetary Differentiation Workshop, 2006
 Member, NASA Solar System Exploration Strategic Roadmap Committee, 2005
 Member, Program Committee, 68th Annual Meteoritical Society Meeting, 2005
 Member, Solar System Exploration Subcommittee of NASA's Space Sciences Advisory Committee, 2004 – 2005
 Member, Editorial Committee, *Meteorites & the Early Solar System II* (U. Arizona Press), 2004 – 2005
 Member, NASA Curation and Planning Team for Extraterrestrial Materials (CAPTEM), 2002 – 2005
 Member, NASA Mars-Moon Science Linkages (MMSL) Science Steering Group, 2004
 Member, Organizing Committee, Oxygen in the Terrestrial Planets Workshop, 2004
 Member, Meteoritical Society Council, 2001 – 2004
 Panel Chief, NASA Cosmochemistry Review Panel, 2002 – 2003
 Member, Organizing Committee, Workshop on Mercury: Space Environment, Surface, and Interior, 2001
 Member, NASA Cosmochemistry Management Operations Working Group/Ad Hoc Advisory Group, 1998 – 2001
 Co-Chair, Organizing Committee, 63rd Annual Meteoritical Society Meeting, 2000
 Chair, Meteorite Nomenclature Committee, 1998; member, 1996 – 2000
 Panel Chief, NASA Planetary Instrument Definition and Development Program (PIDDP) Surface Instrumentation Review Panel, 1999
 Member, Program Committee, Lunar and Planetary Science Conference, 1998 – 1999
 Group Chief, Experimental and Analytical Geochemistry Group, 1999; member, NASA Cosmochemistry Review Panel, 1997 – 1999
 Member, NASA-NSF-Smithsonian Meteorite Working Group, 1996 – 1999
 Member, NASA Laboratory Instrumentation for the Analysis of Returned Samples (LIFARS) Program Definition Group, 1997 – 1998
 Member, NASA Planetary Instrument Definition and Development Program (PIDDP) Surface Instrumentation Review Panel, 1996

DEPARTMENT AND UNIVERSITY SERVICE

Member, Space Strategy Committee, ASU, 2020 – present (chair, 2020-2021)
 Member, Regents Professors selection committee, ASU, 2024, 2016, 2015
 Member, Faculty Women's Association Board, ASU, 2012 – present
 Mentor, Alumni Mentoring Program of ASU Launching Leaders Program, Spring 2022
 Member, Search Committee for Provost, ASU, 2020
 Chair, Promotion and Tenure Committee, SESE, ASU, 2018 – 2019; member, 2016 – 2019
 Member, Exploration Postdoctoral Fellowship evaluation committee, SESE, ASU, 2019
 Member, Origins Project Internal Advisory Committee, ASU, 2013 – 2018
 Member, Senators Council, College of Liberal Arts and Sciences, ASU, 2014 – 2018
 Member, Search Committee for Small Satellites faculty member, SESE, ASU, 2016 – 2017
 Member, President's Women-in-Leadership Council, ASU, 2015 – 2016
 Member, Exploration Postdoctoral Fellowship evaluation committee, SESE, ASU, 2015

Member, Search Committee for Electron Microprobe Lab Manager, Center for Solid State Science, ASU, 2015
 Member, Search Committee for Planetary Science faculty member, SESE, ASU, 2014 – 2015
 Member, Search Committee for Provost, ASU, 2013
 Co-Chair, International Student Experience Strategic Plan Committee, ASU, 2013
 Member, Promotion and Tenure Committee, SESE, ASU, 2007 – 2011
 Member, Undergraduate and Graduate Curriculum Committee, SESE, ASU, 2008 – 2009
 Member, Graduate Qualification Requirements (Ad Hoc) Committee, SESE, ASU, 2007 – 2008
 Member, Interdisciplinary Science and Technology Building-4 Planning (Ad Hoc) Committee, SESE, ASU, 2007 – 2008
 Member, Search Committee for the Dean of the Sandra Day O'Connor School of Law, ASU, 2007 – 2008
 Member, Graduate Recruitment Committee, SESE, ASU, 2007

INVITED LECTURES AND COLLOQUIA

“Wonders of the Universe” series lecture at Fromm Institute, University of San Francisco, February 2025 (virtual)
 Department of Physics, Loyola University of Chicago, November 2024 (virtual)
 Planetary Science and Exploration Seminar, Stanford University, September 2024
 Public Lecture, COSPAR 2024, Busan, South Korea, July 2024
 Exploring Space Lecture, Smithsonian National Air and Space Museum, June 2024
 Plenary lecture, Arizona Astrobiology Symposium, March 2024
 Department of Earth and Planetary Sciences, Yale University, November 2023
 Robert N. Walker Distinguished Lectures, McDonnell Center for the Space Sciences, Washington University in St. Louis, October 2023
 Yervant Terzian Lecture, Department of Astronomy, Cornell University, October 2023
 Plenary lecture, Symposium on Sample Return Missions, 86th Annual Meeting of the Meteoritical Society (Los Angeles, CA), August 2023
 Plenary lecture, 242nd Meeting of the American Astronomical Society (Albuquerque, NM), June 2023
 James Arnold Endowed Lecture, Department of Chemistry and Biochemistry, University of California at San Diego, May 2023
 Lunar and Planetary Laboratory, University of Arizona, October 2022
 Plenary lecture, Astrobiology Science Conference (Atlanta, GA), May 2022
 Space Center Houston, October 2021
 Universidad Nacional Autónoma de México, April 2021 (virtual)
 Department of Geology, University of Maryland at College Park, October 2020 (virtual)
 UCLA Meteorite Gallery Lecture Series, August 2020 (virtual)
 Baldwin Frontiers in Geology Lecture, Miami University, February 2020
 Department of Geology and Environmental Earth Science, Miami University, February 2020
 Department of Earth and Atmospheric Sciences, University of Houston, February 2020
 Department of Geological Sciences, University of North Carolina at Chapel Hill, February 2020
 Documentary Filmmakers Retreat, National Academies Science and Entertainment Exchange Program, October 2019
 Northrup Distinguished Lecture, Department of Earth and Planetary Sciences, University of New Mexico, April 2019
 Lunar and Planetary Laboratory, University of Arizona, April 2018
 Shoemaker Lecture, American Geophysical Union Fall Meeting, December 2016
 PLANEX Division, Physical Research Laboratory, Ahmedabad, India, April 2016
 Geological Survey of India, Kolkata, India, April 2016
 Department of Geology and Geophysics, Indian Institute of Technology, Kharagpur, India, April 2016
 Department of Earth Sciences, Indian Institute of Technology, Kanpur, India, March 2016
 Department of Geology, University of Delhi, Delhi, India, March 2016
 Department of Physics, Panjab University, Chandigarh, India, February 2016

Department of Geology, Panjab University, Chandigarh, India, February 2016
 Professor Sukhwala Memorial – TERRA Lecture, St. Xavier's College, Mumbai, India, February 2016
 Indian Institute of Technology Bombay, Mumbai, India, February 2016
 Indian Institute of Science Education and Research, Pune, India, February 2016
 Physical Research Laboratory, Ahmedabad, India, January 2016
 25th Anniversary Invited Lecture, Planetary Chemistry Theme, Annual Goldschmidt Conference, Prague, July 2015
 Shoemaker Lecture, Beyond Center, Arizona State University, November 2014
 Lamont Doherty Earth Observatory, Columbia University, October 2014
 Department of Earth and Planetary Science, American Museum of Natural History, October 2014
 Annual Goldschmidt Conference, Sacramento, June 2014
 Department of Earth and Atmospheric Sciences, MIT, May 2013
 Department of Geophysical Sciences, University of Chicago, April 2013
 Department of Geological Sciences, University of Tennessee, February 2013
 Department of Earth Science, Rice University, October 2012
 Workshop on the Mantle of Mars, Houston, TX, September 2012
 Nuclei in the Cosmos Conference, Cairns, Australia, August 2012
 Workshop on Formation of the First Solar System Solids, Kauai, Hawaii, November 2011
 International Primitive Body Exploration Working Group Workshop, Jet Propulsion Laboratory, Pasadena, CA, August 2011
 Department of Earth and Space Sciences, University of California at Los Angeles, March 2011
 Department of Geology and Planetary Science, University of Pittsburgh, April 2010
 Annual Lunar Exploration and Analysis Group Meeting, Houston, TX, November 2009
 School of Earth and Space Exploration, Arizona State University, October 2009
 American Geophysical Union Fall Meeting, San Francisco, CA, December 2007
 Workshop on Chronology of Meteorites and the Early Solar System, Kauai, Hawaii, November 2007
 Gordon Research Conference on Origins of Solar Systems, Mt. Holyoke College, July 2007
 Zinner Impact Symposium, Washington University, February 2007
 Department of Earth and Planetary Sciences, University of New Mexico, December 2006
 Department of Earth Sciences, ETH, Zurich, November 2006
 Division of Geological Sciences, California Institute of Technology, April 2006
 Department of Earth and Space Sciences, UCLA, April 2006
 Department of Earth and Planetary Sciences, Washington University, March 2006
 Department of Earth and Atmospheric Sciences, MIT, February 2006
 Protostars and Planets V Conference, October 2005
 15th Annual Goldschmidt Conference, May 2005
 Woods Hole Oceanographic Institution Geodynamics Seminar, WHOI, April 2005
 Max Planck Institut für Chemie, Mainz, Germany, April 2005
 Department of Geophysical Sciences, University of Chicago, February 2005
 Department of Earth and Environmental Sciences, University of Illinois at Chicago, February 2005
 Department of Biological Sciences, Loyola University, September 2004
 Oxygen in the Terrestrial Planets Workshop, July 2004
 Harvard-Smithsonian Astrophysics of Planetary Systems Conference, Harvard University, May 2004
 Iota Sigma Pi (National Honor Society of Women in Chemistry), Chicago Chapter, May 2004
 Division of Geological and Planetary Sciences, California Institute of Technology, October 2003
 Gordon Research Conference on Origins of Solar Systems, July 2003
 Advanced Photon Source Colloquium, Argonne National Laboratory, May 2003
 Robert M. Walker Symposium, Washington University, February 2003
 Department of Geological Sciences, University of Illinois at Urbana-Champaign, September 2002
 American Geophysical Union Spring Meeting, May 2002
 Department of Geology, Northern Illinois University, March 2002
 American Geophysical Union Fall Meeting, December 2001
 Department of Mineral Sciences, American Museum of Natural History, November 2001

Department of Geological Sciences, Rutgers University, November 2001
Department of Earth and Atmospheric Sciences, MIT, October 2001
Department of Geological Sciences, Indiana University, Bloomington, October 2001
Department of Geology, Southern Illinois University, Carbondale, September 2001
Department of Astronomy, Cornell University, May 2001
Earth Science Club of Northern Illinois, September 2000
Max Planck Institut für Chemie, Mainz, Germany, February 2000
Department of Geophysical Sciences, University of Chicago, January 2000
Department of Chemistry, University of California at San Diego, December 1999
State Microscopical Society of Illinois, Chicago, October 1999
Department of Planetary Sciences, University of Arizona, Tucson, May 1999
Department of Geophysical Sciences, University of Chicago, December 1998
Department of Terrestrial Magnetism, Carnegie Inst. of Washington, Washington DC, June 1998
Sigma Xi Chapter at University of Illinois at Chicago, March 1998
Department of Geological Sciences, University of Michigan, Ann Arbor, July 1997
State Microscopical Society of Illinois, Chicago, July 1997
Department of Astronomy, Northwestern University, Evanston, May 1997
Department of Chemistry, University of California at San Diego, December 1996
Department of Geology, Calvin College, Grand Rapids, October 1996
Department of Geophysical Sciences, University of Chicago, October 1996
Department of Geological Sciences, University of Illinois, Chicago, September 1996
Department of Geology, Northwestern University, Evanston, March 1996

TEACHING EXPERIENCE

SES591/494 Advancing Solar System Exploration with Sample Return Missions, Spring 2023, Spring 2025
SES591/494 Leadership Pathways in Earth and Space Exploration, Spring 2024
GLG598/485 & CHM598/485 Cosmochemistry and Meteorites, ASU, Spring 2021, Fall 2018, Fall 2016, Spring 2014, 2012, 2010, Fall 2007
SES591/494 Sample Return Missions, Spring 2018
GLG598/490 Analytical Instruments, ASU, Spring 2017, 2011, Fall 2008
GLG581/494 & CHM598/494 Isotope Geochemistry (co-taught with A. Anbar), ASU, Spring 2015
GLG598/494 Trace Element Geochemistry (co-taught with R. Hervig), ASU, Fall 2014
GeoSci220 Magmatism in the Early Solar System, University of Chicago, Spring Quarter, scheduled alternate years, 1998-2006
PhySci110 Environmental History of Earth, University of Chicago, Winter Quarter, 2001

ACADEMIC MENTORING

Graduate Student Advisees

Rishant Prakash (doctoral student, ASU, 2023 – present)
Andrea Distel (doctoral student, ASU, 2021 – present)
Nicole Phelan (ASU, MS, 2023, currently Mission Operations Specialist, Malin Space Science Systems Inc., San Diego, CA)
Soumya Ray (ASU, PhD 2021, currently postdoctoral researcher at Los Alamos National Laboratory, Los Alamos, NM)
Zachary Torrano (ASU, PhD 2020, currently Staff Scientist at Los Alamos National Laboratory, Los Alamos, NM)
Emilie Dunham (ASU, PhD 2020, currently Postdoctoral Research Fellow at Lawrence Livermore National Laboratory, Livermore, CA)
Daniel Dunlap (ASU, PhD 2020, currently Analytical Chemist at Oak Ridge National Laboratory, Oak Ridge, TN)

Gabriel Franco (ASU, MNS 2019)
Prajkta Mane (ASU, PhD 2016, currently Staff Scientist at Lunar and Planetary Institute, Houston, TX)
Kera Tucker (ASU, MS 2015; currently Senior Systems Engineer at Lockheed Martin, Denver, CO)
Curtis Williams (ASU, PhD 2014; currently Program Scientist, Planetary Science Division, NASA Headquarters, Washington DC)
Matthew Sanborn (ASU, PhD 2012; currently Staff Scientist, Los Alamos National Laboratory, Los Alamos, NM)
Lev Spivak-Birndorf (ASU, PhD 2012; currently Chief Science Officer and Co-Founder at PSI Labs, Ann Arbor, MI)
Greg Brennecka (ASU, PhD 2011; currently Staff Scientist, Lawrence Livermore National Laboratory, Livermore, CA)

Postdoctoral and Other Advisees

Philip Reger (Postdoctoral Researcher, 2025 – present)
Michole Washington (Postdoctoral Researcher, 2025 – present)
Ren Marquez (BCMS Meteorite Studies Postdoctoral Fellow, co-advised with L. Nittler, 2024 – present)
Michelle Aigner (Laboratory Manager, ASU, 2024 – present)
Jeffrey Osterhaut (Postdoctoral Researcher, Jet Propulsion Laboratory/Caltech, Pasadena, CA, 2021 – present)
Vinai Rai (Associate Research Scientist and Laboratory Manager, ASU, 2016 – 2023; Research Scientist and Laboratory Manager, ASU, 2023 – present)
Rebekah Hines (Research Professional, ASU, 2011 – 2024)
Jemma Davidson (Assistant Research Scientist, ASU, 2018 – 2023; Associate Research Scientist, ASU, 2023 – 2024; currently Branch Chief of Curation at NASA ARES, Johnson Space Center, Houston, TX)
Stephen Romaniello (Assistant Research Scientist, 25% appointment in Center for Meteorite Studies, ASU, 2014 – 2019; Assistant Research Scientist and Laboratory Manager, Center for Meteorite Studies, ASU, 2012 – 2014; currently Director of Research, Project Vesta, Knoxville, TN)
Alice Stephant (Postdoctoral Researcher, Center for Meteorite Studies, ASU, 2015 – 2017; currently Postdoctoral Scholar, University of Florence, Florence, Italy)
Julia Cartwright (Postdoctoral Researcher, Center for Meteorite Studies, ASU, 2014 – 2017; currently Independent Research Fellow, University of Leicester, Leicester, UK)
Kate Sounders (Assistant Research Professor and Laboratory Manager, Center for Meteorite Studies, ASU, 2014 – 2015; currently Research Geologist, United States Geological Survey, Denver, CO)
Gregory Brennecka (Postdoctoral Researcher, Center for Meteorite Studies, ASU, 2011 – 2013; currently Staff Scientist, Lawrence Livermore National Laboratory, Livermore, CA)
Philip Janney (Laboratory Manager, The Field Museum, 2000 – 2006; Associate Research Scientist and Laboratory Manager, Center for Meteorite Studies, ASU, 2006 – 2012; currently Professor, University of Cape Town, South Africa)
Melissa Morris (SESE Exploration Postdoctoral Fellow co-advised with S. Desch, ASU, 2010 – 2011; currently Discipline Scientist/Program Officer, NASA Headquarters, Washington DC)
Audrey Bouvier (Postdoctoral Researcher, Center for Meteorite Studies, ASU, 2007 – 2010; currently Research Scientist at Bayerisches Geoinstitut, University of Bayreuth, Bayreuth, Germany)
Fang Zhen Teng (Postdoctoral Researcher, The Field Museum, 2006 – 2007; currently Professor, University of Washington, Seattle, WA)
Nicolas Dauphas (Postdoctoral Researcher, The Field Museum and University of Chicago, co-advised with A. M. Davis, 2002 – 2004; currently Louis Block Professor, University of Chicago, Chicago, IL)
Nicole Foley (Postdoctoral Researcher, The Field Museum, 2002 – 2004)

Graduate Student Committees

Christian Kroemer (ASU, PhD candidate)
Chadlin Ostrander (ASU, PhD 2020)

Hannah Bercovici (ASU, MS 2020)
Huawei Chen (ASU, PhD 2019)
Feifei Zhang (ASU, PhD 2018)
Cameron Mercer (ASU, PhD 2017)
Jinping Hu (ASU, PhD 2016)
Karen Rieck (ASU, PhD 2015)
Stephen Romaniello (ASU, PhD 2012)
Melissa Morris (ASU, PhD 2009)
Nicolas Ouellette (ASU, PhD 2008)
Karen Rieck (ASU, MS 2008)
Liping Qin (U. Chicago, PhD 2007)
David Cook (U. Chicago, PhD 2007)
Agnes Markowski (ETH, Zurich, PhD 2006)

Undergraduate Student Advisees

Nidhi Nirwan (ASU, 2024 – present)
Jonathan Rabinowitz (ASU, 2024 – present)
Christian Kroemer (ASU, Honors Thesis 2022)
Max Kulak (ASU, Honors Thesis 2022)
Ivy Ettenborough (ASU, 2019)
Karen Leung (ASU, 2016)
Elizabeth Dybal (ASU, 2014 – 2016)
Ya-Jui Ku (National Taiwan University, 2014)
Jasmine Parker (ASU, 2012 – 2013)
Tyler Farina (ASU, 2012)
Brian De Hoog (ASU, 2009 – 2012)
Melissa Anderson (ASU, 2009)
Michael Stuart (ASU, 2009)
Ashley Dancer (ASU, 2008 – 2009)
Jesse Hannah (ASU, 2008 – 2009)
Ashley Stanfil (ASU, 2008)
Susheel Koushik (ASU, 2007 – 2008)
Melanie Channon (ASU, 2007)
Elizabeth Meith (ASU 2007)
Matthew Sanborn (ASU, 2007)
Lev Spivak-Birndorf (U. Chicago, 2003 – 2005)
Nicolas Beecher (U. Chicago, 2002)
Josef Dufek (U. Chicago, 2001)
Noel Heim (U. Chicago, 1999 – 2000)
Shelley Erickson (Field Museum Intern, 1998 – 1999)
Emily Lakdawalla (Field Museum Intern, 1998)

Brooke Owens Fellowship Mentees

Brenna Wells (University of Alabama, 2024)
Kylie Schmidt (University of Kentucky, 2023)
Sarah Fry (Princeton University, 2022)
Isabel Hunt (Temple University, 2021)
Sanjana Tewathia (Georgia Institute of Technology, 2020)
Kira Altman (University of Colorado at Boulder, 2019)
Carson Brumley (University of Colorado at Boulder, 2018)
Justine Walker (College of Wooster, 2017)

Honors and Awards (As Mentor)

NASA Future Investigators in Earth and Space Science and Technology, Andrea Distel (as graduate student at ASU), 2024-present
 NASA Earth and Space Science Fellowship, Soumya Ray (as graduate student at ASU), 2018-2021
 NASA Future Investigators in Earth and Space Science and Technology, Zachary Torrano (as graduate student at ASU), 2019-2020
 NASA Earth and Space Science Fellowship, Daniel Dunlap (as graduate student at ASU), 2017-2020
 NASA Earth and Space Science Fellowship, Emilie Dunham (as graduate student at ASU), 2016-2020
 Stephen E. Dwornik Award (Geological Society of America) for best poster presentation, Daniel Dunlap (as graduate student at ASU), 2018-2019
 Wiley Award (The Meteoritical Society) for oral presentation, Daniel Dunlap (as graduate student at ASU), 2017
 Nier Prize (The Meteoritical Society), Greg Brennecka (for work conducted as a graduate student and postdoctoral researcher at ASU), 2016
 Nier Prize (The Meteoritical Society), Audrey Bouvier (for work conducted as a postdoctoral researcher at ASU), 2013
 NASA Earth and Space Science Fellowship, Prajka Mane (as graduate student at ASU), 2013-2015
 NASA Earth and Space Science Fellowship, Curtis Williams (as graduate student at ASU), 2012-2014
 NASA Earth and Space Science Fellowship, Lev Spivak-Birmdorf (as graduate student at ASU), 2011-2012
 NASA Earth and Space Science Fellowship, Greg Brennecka (as graduate student at ASU), 2010-2011
 Ninninger Meteorite Award, Greg Brennecka (as graduate student at ASU), 2010
 NASA Earth and Space Science Fellowship, Matthew Sanborn (as graduate student at ASU), 2009-2012
 Brian Mason Award of the Meteoritical Society, Greg Brennecka (as graduate student at ASU), 2009
 Nier Prize (The Meteoritical Society), Nicolas Dauphas (for work conducted as a postdoctoral researcher at The Field Museum/University of Chicago), 2005

FEDERAL GRANTS

PI, NASA Future Investigators in Earth and Space Science and Technology (A. Distel), \$150,000 (12/23/24-12/22/27)
 PI, NASA JPL Mars Sample Return Program Subcontract, \$1,845,769 (4/7/2021 – 9/28/2025)
 PI, NASA Science Activation Integration Program, \$5,635,465 (1/1/2021-12/31/2025)
 PI, NASA Solar System Workings Program, \$446,573 (1/1/21-12/31/25)
 PI, NASA Emerging Worlds Program, \$1,953,008 (7/1/15-6/30/22)
 PI, NASA Solar System Workings Program, \$444,408 (1/1/17-12/31/22)
 PI, NASA Earth and Space Science Fellowship (S. Ray), \$122,682 (9/1/18-2/28/22)
 PI, NASA Future Investigators in Earth and Space Science and Technology (Z. Torrano), \$40,795 (9/1/19-8/31/20)
 PI, NASA Earth and Space Science Fellowship (D. Dunlap), \$74,431 (9/1/17-8/31/20)
 PI, NASA Earth and Space Science Fellowship (E. Dunham), \$104,226 (9/1/16-8/31/20)
 Co-I, NASA Science Education CAN (PI: A. Anbar), \$10,183,479 (1/21/2016-1/20/2021)
 Co-I, NASA Nexus for Exoplanet System Science (PI: S. Desch), \$6,097,436 (12/31/2014-12/30/2019)
 PI, NASA Lunar Advanced Science & Exploration Research Program, \$122,659 (9/3/14-9/4/17)
 PI, NASA Earth and Space Science Fellowship (P. Mane), \$90,000 (9/1/13-8/31/16)
 PI, NASA Cosmochemistry Program, \$1,060,651 (6/23/11-6/22/16)
 PI, NASA Origins of Solar Systems Program, \$318,140 (6/22/11-6/21/15)
 Co-I, NASA Lunar Advanced Science & Exploration Research Program (PI: A. Bouvier), \$18,511 (5/5/12-9/2/14)
 PI, NASA Earth and Space Science Fellowship (C. Williams), \$60,000 (9/1/12-8/31/14)
 Co-I, NASA Education and Outreach in Earth & Space Science (PI: A. Anbar), \$302,377 (4/6/11-4/5/14)
 Co-I, NASA Astrobiology Institute (PI: A. Anbar), \$7,008,810 (1/15/09-1/14/14)
 PI, NASA JPL subcontract, \$16,954 (6/27/13-9/29/13)
 Co-PI, NSF Major Research Instrumentation (PI: P. Williams), \$3,267,586 (1/1/10-12/31/2012)

PI, NASA Earth and Space Science Fellowship, \$30,000 (L. Spivak-Birndorf) (9/1/11-8/31/12)
PI, NASA Earth and Space Science Fellowship, \$89,570 (M. Sanborn) (9/1/09-8/31/12)
Co-I, NASA Mars Fundamental Research Program (PI: D. Bell), \$315,497 (4/24/08-4/23/12)
PI, NASA Cosmochemistry Program, \$1,245,000 (4/1/08-3/31/12)
PI, NASA Earth and Space Science Fellowship, \$30,000 (G. Brennecka) (9/1/10-8/31/11)
PI, NASA Origins of Solar Systems Program, \$211,677 (1/8/07-5/7/10)
PI, NASA Discovery Program (Genesis mission) subcontract through JSC, \$342,000 (8/1/05-9/30/09)
PI, NASA Cosmochemistry Program, \$426,000 (5/1/05-3/31/08)
Co-PI, NSF Major Research Instrumentation Program (PI: R. Williams), \$494,295 (9/1/03-8/31/06)
PI, NASA Cosmochemistry Program, \$345,000 (5/1/02-4/30/05)
PI, NSF EAR Geochemistry and Petrology Program, \$130,356 (1/1/98-6/30/03)
PI, NASA Cosmochemistry Program, \$225,000 (4/1/99-3/31/02)
PI, NSF Major Research Instrumentation Program, \$255,000 (9/15/98-9/14/01)
PI, NASA Cosmochemistry Program (major equipment grant), \$255,000 (4/15/98-10/14/99)
Co-PI, NSF Major Research Instrumentation Program (PI: M. Humayun), \$410,000 (9/1/97-8/31/99)
PI, NASA Cosmochemistry Program, \$80,000 (4/1/97-3/31/99)

SPACECRAFT MISSION ENGAGEMENT

Principal Scientist, Mars Sample Return Program, 2021 – present
Science team member, Mars 2020 NASA mission (Returned Sample Science Working Group), 2021 – present
Collaborator, Mars Science Laboratory NASA mission (SAM instrument suite), 2011 – present
Initial Analysis Chemistry Team member, Hayabusa2 JAXA mission, 2020 – 2023
Co-Investigator, Genesis NASA Discovery mission, 2005 – 2009

SPACECRAFT MISSION PROPOSALS

Lunar Dawn Science Council, Lunar Dawn rover (Feasibility Study, NASA Lunar Terrain Vehicle Services Contract program), 2024 – present
Deputy Principal Investigator, CONDOR Comet Surface Sample Return, NASA New Frontiers mission proposal (PI, C. Raymond), 2017
Co-Investigator, Martian moon, Exploration, Reconnaissance, and Landing INvestigation (MERLIN), NASA Discovery mission proposal (PI, D. Britt), 2015
Principal Investigator, Sample Collection for Investigation of Mars (SCIM), NASA Discovery mission proposal, 2010
Co-Investigator, Martian moon, Exploration, Reconnaissance, and Landing INvestigation (MERLIN), NASA Discovery mission proposal (PI, D. Britt), 2010
Co-Investigator, Sample Collection for Investigation of Mars (SCIM), NASA Mars Scout mission proposal selected for Phase A studies (PI, L. Leshin), 2006
Co-Investigator, Sampling Ancient Mars (SAM), NASA Mars Scout mission proposal (PI, D. Britt), 2006
Co-Investigator, Gulliver Deimos Sample Return, NASA Discovery mission proposal (PI, D. Britt), 2005
Co-Investigator, Sample Collection for Investigation of Mars (SCIM), NASA Mars Scout mission proposal (PI, L. Leshin), 2002

MEDIA AND PUBLIC ENGAGEMENT

Delivered numerous public talks; featured in news media (television, radio and print) outlets, including documentaries on the Discovery Channel (How the Universe Works), History Channel (The Universe; How the Earth was Made), PBS (Nova ScienceNow), and Science Channel (Space's Deepest Secrets; Meteorite Men); and involved in the development of public outreach, educational programs and exhibits. Highlights include the following:

- Featured in “Fireball: Visitors from Darker Worlds” directed by Werner Herzog and Clive Oppenheimer, 2020

- On CBS Sunday Morning, September 13, 2020
- New Discoveries Lecture (“Exploring the Solar System Through Meteorites”), School of Earth and Space Exploration, October 2018
- On NPR Science Friday, June 2018; <https://www.sciencefriday.com/segments/science-friday-presents-two-wrongs-dont-make-a-meteorite/>
- On NPR Science Friday, November 2017; <https://www.sciencefriday.com/segments/a-space-rock-makes-an-interstellar-visit/>
- TEDxASU: Innovation Worth Sharing, 2017; <https://www.youtube.com/watch?v=iukJJ2u0vlo>
- Arizona State University KEDTalks: Conversations for the Curious, 2016; <https://www.youtube.com/watch?v=i-JmdMYOEII&t=43s>
- In documentary “Meteorites – Visitors from Another Planet” by Petra Haffter, 2015
- On Australian Broadcasting Corporation’s “The Science Show”, May 2014; <http://www.abc.net.au/radionational/programs/scienceshow/meteorites-bring-the-history-of-the-solar-system-to-earth-and-m/5427388>
- On NPR Science Friday, March 2013; <https://www.sciencefriday.com/segments/studying-rocks-found-on-earth-for-clues-about-space/>
- In PBS Channel’s NOVA ScienceNOW show “Where did we come from?”, 2011
- In History Channel’s “United States of America”, 2012
- Oversight of the design and content for “Meteorite Gallery” exhibit in Interdisciplinary Science Technology Building 4 on ASU’s Tempe campus, 2011 – 2012
- In Science Channel’s “Meteorite Men”, aired 2009 – 2012
- In Discovery Channel documentary “Inside Planet Earth”, aired 2009
- In History Channel documentary “How the Earth was Made: Asteroids”, aired 2009
- Oversight of the development, production and distribution of loanable classroom modules on “Origin of Meteorites” for K-12 and informal educators, 2008 – 2019
- Featured in “Faces of Exploration” by Joanna Vestey, Wigwam Press, London, 2006
- Content development for “Evolving Planet” permanent exhibit, The Field Museum, 2005 – 2006
- Featured in (and contributed content to) article in Discover magazine, March 2004; <http://discovermagazine.com/2004/mar/meteoriticist-in-her-own-words>
- On “Seeking Solutions with Suzanne”; aired on CNN Headline News, Oct 6, 2003
- Featured in “Women of Discovery” by Milbry Polk and Mary Tiegreen, Clarkson Potter Publishers, New York, 2001
- Content Specialist for temporary exhibit of a Moon rock to commemorate 30th Anniversary of first Moon landing, The Field Museum, 1999
- Content development for (and featured in) “Women in Science” on-line exhibit, The Field Museum, 1998 – 1999
- Content Specialist for “Grainger Gallery of Meteorites” permanent exhibit, The Field Museum, 1998

POPULAR SCIENCE ARTICLES, REVIEWS, AND EDITORIALS

1. Wadhwa M. (2023) Bringing space rocks back to Earth could answer some of life’s biggest questions. *Nature* 621, 445.
2. Wadhwa M. (2021) Meteorites: A story written across light years down the barrel of a microscope. Review of “Meteorite: The stones from outer space that made our world” by Tim Gregory. *Nature* 589, 510-511.
3. Anand M., Russell S., Lin Y., Wadhwa M., Marhas K.K., and Tachibana S. (2020) Editorial to the topical collection: Role of sample return in addressing major questions in planetary sciences. *Space Science Reviews* 216, 101. <https://doi.org/10.1007/s11214-020-00724-4>
4. Wadhwa M. (2014) What are we learning from cosmic dust? *Astronomy*, February 2014 issue, 56-59.
5. Wadhwa M. (2013) Exploring the Solar System from the ends of the Earth. *Slate*, Future Tense project

- (http://www.slate.com/articles/technology/future_tense/2013/09/the_best_meteorites_are_found_in_antarctica.html)
6. Wadhwa M. (2013) What are we learning from Moon rocks? *Astronomy*, June 2013 issue, 54-57.
 7. Wadhwa M. (2013) Order from chaos – Genesis samples the solar wind. *Astronomy*, Oct 2013 issue, 54-57.
 8. Fussman C. and Wadhwa M. (2004) In her own words: Meenakshi Wadhwa. *Discover Magazine*, March 2004 issue (<http://discovermagazine.com/2004/mar/meteoriticist-in-her-own-words>).
 9. Wadhwa M. (2004) Searching for treasure to the ends of the Earth. Review of “Meteorites, ice and Antarctica: A personal account” by William A. Cassidy. *Science* 303, 41-42.
 10. Wadhwa M. (2001) Review of “From Mountains to Meteorites” by Brian Mason and Simon Nathan. *Meteoritics and Planetary Science* 36, 1413-1414.
 11. Robinson M. and Wadhwa M. (1995) Messengers from Mars. *Astronomy* 23, 44-48.

RESEARCH PUBLICATIONS

Total Citations (Google Scholar, March 15, 2025): 16265

h-index (Google Scholar, March 15, 2025): 60

i10-index (Google Scholar, March 15, 2025): 144

ORCID ID: orcid.org/0000-0001-9187-1255

PEER-REVIEWED ARTICLES

(†Students or postdoctoral researchers supervised by M. Wadhwa)

2025

1. †Dunlap D.R., †Cartwright J.A., Koefoed P., Krestianinov E., †Romaniello S.J., Agee C., Amelin Y., and Wadhwa M. (2025) Chronology of ungrouped achondrite Northwest Africa 11119 and 7325/8486: Implications for early evolution of a heterogeneous crust on a differentiated planetesimal. *Geochimica Cosmochimica Acta*, submitted.
2. Herd C.D.K., Bosak T., Hausrath E.M., Hickman-Lewis K., Mayhew L.E., Shuster D.L., Siljestrom S., Simon J.I., Weiss B.P., Wadhwa M., Zorzano M.-P., Maki J.N., Farley K.A., and Stack K.M. (2025) Sampling Mars: Geologic context and preliminary characterization of samples collected by the NASA Mars 2020 Perseverance Rover Mission. *Proceedings of the National Academy of Sciences* 122(2), e2404255121.
3. Iizuka T., +87 co-authors, including Wadhwa M. (2025) Late fluid flow in a primitive asteroid revealed by excess ^{176}Hf in Ryugu. *Nature*, submitted.
4. †Osterhaut J.T., Farley K.A., Wadhwa M., Treffkorn J., and Kulczycki E. (2025) Desorption of terrestrial noble gases in Mars 2020 sample tubes: Implications for Mars Sample Return. *Astrobiology*, submitted.
5. Schmidt M.E., +32 co-authors, including Wadhwa M. (2025) Diverse and highly differentiated lava suite in Jezero crater, Mars: Constraints on intracrustal magmatism revealed by Mars 2020 PIXL. *Science Advances* 11, eadr2613.
6. Wittmann A., †Kroemer C.R., Wadhwa M., Sharp T.G., Van Soest M., Martin T., and Goepfert T. (2025) Tissintite-II in lunar meteorite Northwest Africa 13967: Implications for the high-pressure/temperature mineralogy of the lunar regolith. *Meteoritics and Planetary Science*, in press.

2024

7. Aléon J., +89 co-authors, including Wadhwa M. (2024) Hydrogen in magnetite from asteroid Ryugu. *Meteoritics and Planetary Science* 59, 2058-2072.
8. Hu Y., +91 co-authors, including Wadhwa M. (2024) Pervasive aqueous alteration in the early Solar System revealed by potassium isotope variations in Ryugu samples and carbonaceous chondrites. *Icarus* 409, 115884.
9. Kita N., +88 co-authors, including Wadhwa M. (2024) Disequilibrium oxygen isotope distribution among aqueously altered minerals in Ryugu asteroid returned samples. *Meteoritics and Planetary Science*, DOI 10.1111/maps.14163.
10. †Osterhaut J.T., Farley K.A., Wadhwa M., Treffkorn J., and Kulczycki E. (2024) Helium leak rate measurements of flight-like Mars 2020 sample tubes. *Astrobiology* 1, 36-43.
11. Schönbacher M., +89 co-authors, including Wadhwa M. (2024) Zirconium isotope composition indicates s-process depletion in samples returned from asteroid Ryugu. *Meteoritics and Planetary Science*, <http://doi.org/10.1111/maps.14279>.
12. Spitzer F., +88 co-authors, including Wadhwa M. (2024) The nickel isotopic composition of Ryugu reveals a common accretion region for carbonaceous chondrites. *Science Advances* 10, eadp2426.
13. Torrano Z.A., +91 co-authors, including Wadhwa M. (2024) Neodymium-142 deficits and samarium neutron stratigraphy of C-type asteroid (162173) Ryugu. *Meteoritics and Planetary Science* 59, 1966-1982.

14. Yui H., +87 co-authors, including Wadhwa M. (2024) Pyrrhotites in asteroid 162173 Ryugu: Records of the initial changes on their surfaces with aqueous alteration. *Geochimica Cosmochimica Acta* 379, 172-183.

2023

15. Bizzarro M., +88 co-authors, including Wadhwa M. (2023) The magnesium isotope composition of samples returned from asteroid Ryugu. *The Astrophysical Journal Letters* 958, L25.
16. Yokoyama T., Wadhwa M., +88 co-authors (2023) Water circulation in Ryugu asteroid affected the distribution of nucleosynthetic isotope anomalies in returned sample. *Science Advances* 9, eadi7048.
17. Fujiya W., +88 co-authors, including Wadhwa M. (2023) Carbonate record of temporal change in oxygen fugacity and gaseous species in asteroid Ryugu. *Nature Geoscience* 16, 675-682.
18. Horgan B.H.N., +44 co-authors, including Wadhwa M. (2023) Mineralogy, morphology, and emplacement history of the Maaz formation on the Jezero crater floor from orbital and rover observations. *Journal of Geophysical Research: Planets*, DOI 10.1029/2022JE007612.
19. †Mane P., Bose M., Wadhwa M., and Defouilloy C. (2023) Protracted timescales for nebular processing of first-formed solids in the solar system. *The Astrophysical Journal* 946, DOI 10.3847/1538-4357/acb156.
20. Morita M., +96 co-authors, including Wadhwa M. (2023) Analysis of cation composition in dolomites on the intact particles sampled from asteroid Ryugu. *Analytical Chemistry* 96, 170-178.
21. Nakanishi N., +87 co-authors, including Wadhwa M. (2023) Nucleosynthetic s-process depletion in Mo from Ryugu samples returned by Hayabusa2. *Geochemical Perspectives Letters* 28, 31-36.
22. Nguyen A.N., +91 co-authors, including Wadhwa M. (2023) Abundant presolar grains and primordial organics preserved in carbon-rich exogenous clasts in asteroid Ryugu. *Science Advances* 9, eadh1003.
23. Paquet M., +93 co-authors, including Wadhwa M. (2023) Contribution of Ryugu-like material to Earth's volatile inventory by Cu and Zn isotopic analysis. *Nature Astronomy* 7, 182-189.
24. Piani L., +87 co-authors, including Wadhwa M. (2023) Hydrogen isotopic composition of hydrous minerals in asteroid Ryugu. *The Astrophysical Journal Letters* 946, L43.
25. Simon J.I., +67 co-authors, including Wadhwa M. (2023) Samples collected from the floor of Jezero crater with the Mars 2020 Perseverance rover. *Journal of Geophysical Research: Planets*, DOI 10.1029/2022JE007474.
26. Tang H.A., +89 co-authors, including Wadhwa M. (2023) The oxygen isotopic composition of samples from asteroid Ryugu with implications for the nature of the parent planetesimal. *The Planetary Science Journal* 4, 144.
27. †Torrano Z.A., †Brennecke G.A., †Mercer C.M., †Romaniello S.J., †Rai V.R., †Hines R.R., and Wadhwa M. (2023) Titanium and chromium isotopic compositions of calcium-aluminum-rich inclusions: Implications for the sources of isotopic anomalies and the formation of distinct isotopic reservoirs in the early Solar System. *Geochimica Cosmochimica Acta* 324, 194-220.
28. Yokoyama T., Wadhwa M., +88 co-authors (2023) Water circulation in Ryugu asteroid affected the distribution of nucleosynthetic isotope anomalies in returned sample. *Science Advances* 9, eadi7048.
29. Zhang B., Yangting L., Jialong H., Schrader D.L., Wadhwa M., Korotev R.L., Hartmann W.K., and Bouvier A. (2023) SIMS U-Pb dating of micro-zircons in the lunar meteorites Dhofar 1528 and Dhofar 1627. *Meteoritics and Planetary Science* 10, 1540-1551.

2022

30. Barosch J., +124 co-authors, including Wadhwa M. (2022) Presolar stardust in asteroid Ryugu. *The Astrophysical Journal Letters* 935, L3 (DOI 10.3847/2041-8213/ac83bd).
31. †Cartwright J.A., Hodges K.V., and Wadhwa M. (2022) Evidence against a late heavy bombardment on Vesta. *Earth and Planetary Science Letters* 590, 117576.
32. †Dunham E. T., Wadhwa M., Desch S. J., Liu M.-C., Fukuda K., Kita N., Hertwig A. T., Hervig R.L., Defouilloy C., Simon S.B., †Davidson J., Schrader D., and Fujimoto Y. (2022) Uniform initial ¹⁰Be/⁹Be inferred from refractory inclusions in CV3, CO3, CR2, and CH/CB chondrites. *Geochimica Cosmochimica Acta* 324, 194-220.

33. Farley K.A., +114 co-authors, including Wadhwa M. (2022) Aqueously altered igneous rocks sampled on the floor of the Jezero crater, Mars. *Science* 377, DOI 10.1126/science.abo2196.
34. Hopp T., + 91 co-authors, including Wadhwa M. (2022) Ryugu's nucleosynthetic heritage from the outskirts of the Solar System. *Science Advances* 8, DOI 10.1126/sciadv.add8141.
35. Kawasaki N., +93 co-authors, including Wadhwa M. (2022) Oxygen isotopes of anhydrous primary minerals show kinship between asteroid Ryugu and comet 81P/Wild2. *Science Advances* 8, DOI 10.1126/sciadv.ade2067.
36. †Mane P., Wallace S., Bose M., Wallace P., Wadhwa M., Weber J., and Zega T. (2022) Earliest evidence of nebular shock waves recorded in a calcium-aluminum-rich inclusion. *Earth and Planetary Science Letters* 332, 369-388.
37. Moynier F., +93 co-authors, including Wadhwa M. (2022) The Solar System calcium isotope composition inferred from Ryugu samples. *Geochemical Perspectives Letters* 24, 1-6.
38. Yokoyama T., +149 co-authors, including Wadhwa M. (2022) Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites. *Science*, DOI 10.1126/science.abn7850.

2021

39. Garvie A. J. L., Chi M., †Ray S., Domanik K., Wittmann A., and Wadhwa M. (2021) Carletonmooreite, Ni₃Si, a new silicide from the Norton County aubrite meteorite. *American Mineralogist* 106, 1828-1834.
40. †Ray S., Garvie L. A. J., †Rai V. K., and Wadhwa M. (2021) Correlated iron isotopes and silicon contents in aubrite metals reveal structure of their asteroidal parent body. *Scientific Reports* 11, 1-13.
41. †Sanborn M. and Wadhwa M. (2021) Trace element geochemistry of coarse-grained angrites from Northwest Africa: Implications for their petrogenesis on the angrite parent body. *Meteoritics and Planetary Science* 56, 482-499.
42. †Stephant A., Wadhwa M., Hervig R., Bose M., Zhao X., Barrett T.J., Anand M., and Franchi I.A. (2021) A deuterium-poor water reservoir in the asteroid 4 Vesta and the inner Solar System. *Geochimica Cosmochimica Acta* 297, 203-219.
43. †Torrano Z. A., Schrader D.L., †Davidson J., Greenwood R.C., †Dunlap D., and Wadhwa M. (2021) The relationship between CM and CO chondrites: Insights from combined analyses of titanium, chromium, and oxygen isotopes in CM, CO, and ungrouped chondrites. *Geochimica Cosmochimica Acta* 301, 70-90.

2020

44. †Davidson J., Wadhwa M., Hervig R. L., and †Stephant A. (2020) Water on Mars: Insights from apatite in regolith breccia Northwest Africa 7034. *Earth and Planetary Science Letters* 552, 116597.
45. †Dunham E.T., Wadhwa M., Desch S.J., and Hervig R.L. (2020) Best practices for determination of initial ¹⁰Be/⁹Be in early solar system materials by secondary ion mass spectrometry. *Geostandards and Geoanalytical Research* 44, 695-710.
46. Fukuda K., Beard B.L., †Dunlap D.R., Spicuzza M.J., Fournelle J.H., Wadhwa M., and Kita N. (2020) Magnesium isotope analysis of olivine and pyroxene by SIMS: Evaluation of matrix effects. *Chemical Geology* 540, 119482.
47. Jurewicz A.J.G., †Reick K.D., Hervig R., Burnett D.S., Wadhwa M., Olinger C.T., Wiens R., Laming J. M., Guan Y., Huss G.R., Reisenfeld D.B., and Williams P. (2020) Magnesium isotopes of the bulk solar wind from Genesis diamond-like carbon films. *Meteoritics and Planetary Science* 55, 352-375.
48. †Torrano Z. A., †Davidson J., and Wadhwa M. (2020) A reclassification of Northwest Africa 299 from CV3 to CK3.8 chondrite. *Meteoritics and Planetary Science* 55, 2539-2550.
49. Wadhwa M., Schrader D., and McCoy T. (2020) Advances in cosmochemistry enabled by Antarctic meteorites. *Annual Review of Earth and Planetary Sciences* 48, 233-258.

2019

50. †Dunham E., Balta J. B., Wadhwa M., and McSween H. Y., Jr. (2019) Petrology and geochemistry of olivine-phyric shergottites LAR 12095 and LAR 12240: Implications for their petrogenetic

history on Mars. *Meteoritics and Planetary Science* 54, 811-835.

51. Shollenberger Q. A., Wittke A., Render J., †Mane P., Schuth S., Weyer S., Gussone N., Wadhwa M., and Brennecka G. (2019) Combined mass-dependent and nucleosynthetic isotope variations in refractory inclusions and their mineral separates to determine their original Fe isotope compositions. *Geochimica Cosmochimica Acta* 263, 215-234.
52. †Torrano Z. A., Brennecka G. A., †Williams C. D., †Romaniello S. J., †Rai V. K., and Wadhwa M. (2019) Titanium isotope signatures of calcium-aluminum-rich inclusions from CV and CK chondrites: Implications for early Solar System reservoirs and mixing. *Geochimica Cosmochimica Acta* 263, 13-30.

2018

53. Srinivasan P., †Dunlap D. R., Agee C. B., Wadhwa M., Coleff D., Ziegler K., Zeigler R., and McCubbin F. M. (2018) Earliest dated silica-rich volcanism in the Solar System. *Nature Communications* 9, 3036.
54. †Stephant A., Garvie L. A. J., †Mane P., Hervig R., and Wadhwa M. (2018) Terrestrial exposure of a fresh martian meteorite causes rapid changes in hydrogen isotopes and concentrations. *Scientific Reports Scientific Reports* 8, DOI 10.1038/s41598-018-30807-w.

2017

55. Balta J. B., †Sanborn M. E., Mayne R. G., Wadhwa M., McSween H. Y., Jr., and Crossley S. D. (2017) Northwest Africa 5790: A previously unsampled portion of the upper part of the nakhlites pile. *Meteoritics and Planetary Science* 52, 36-59.
56. Brennecka G. A., Borg L. E., †Romaniello S. J., †Souders A. K., Shollenberger Q. R., Marks N. E., and Wadhwa M. (2017) A renewed search for short-lived ¹²⁶Sn in the early solar system: Hydride generation MC-ICPMS for high sensitivity Te isotopic analysis. *Geochimica Cosmochimica Acta* 201, 331-344.
57. Kleine T. and Wadhwa M. (2017) Chronology of planetesimal differentiation. *Planetesimals: Early Differentiation and Consequences for Planets* (Eds. Elkins-Tanton L. T. and Weiss B. P.), Cambridge Univ. Press, 224-245.
58. Mendybaev R., †Williams C. D., Spicuzza M. J., Richter F. M., Valley J. W., and Wadhwa M. (2017) Thermal and chemical evolution of the early Solar System materials as recorded by FUN CAIs: Part II – Laboratory evaporation of potential CMS-1 precursor material. *Geochimica Cosmochimica Acta* 201, 49-64.
59. †Williams C. D., Ushikubo T., Mendybaev R. A., †Janney P. E., Kita N. T., Bullock E. S., †Hines R. R., MacPherson G. J., Hervig R. L., Richter F. M., and Wadhwa M. (2017) Thermal and chemical evolution of the early Solar System materials as recorded by FUN CAIs: Part I – Petrology, mineral chemistry, and isotopic composition of Allende FUN CAI CMS-1. *Geochimica Cosmochimica Acta* 201, 25-48.

2016

60. †Mane P., Hervig R., Wadhwa M., Garvie L. A. J., Balta J. B., and McSween H. Y., Jr. (2016) Hydrogen isotopic composition of the martian mantle inferred from the newest martian meteorite fall Tissint. *Meteoritics and Planetary Science* 51, 2073-2091.
61. †Williams C. D., †Janney P. E., †Hines R. R., and Wadhwa M. (2016) Precise titanium isotope compositions of refractory inclusions in the Allende CV3 chondrite by LA-MC-ICPMS. *Chemical Geology* 436, 1-10.

2015

62. Balta J. B., †Sanborn M., Udry A., McSween H. Y., Jr., and Wadhwa M. (2015) Petrology and trace-element geochemistry of Tissint, the newest shergottite fall. *Meteoritics and Planetary Science* 50, 63-85.
63. Davis A. M., Richter F. M., Mendybaev R. A., †Janney P. E., Wadhwa M., and McKeegan K. D. (2015) Isotopic mass fractionation laws for magnesium and their effects on ²⁶Al-²⁶Mg systematics in Solar System materials. *Geochimica Cosmochimica Acta* 158, 245-261.
64. Ding S., Dasgupta R., Lee C. T., and Wadhwa M. (2015) New bulk sulfur measurements of martian

meteorites and modeling the fate of sulfur during melting and crystallization – implications for sulfur transfer from martian mantle to crust-atmosphere system. *Earth and Planetary Science Letters* 409, 157-167.

65. Goldmann A., †Brennecke G., Noordmann J., Weyer S., and Wadhwa M. (2015) Uranium isotope composition of the Earth and Solar System. *Geochimica Cosmochimica Acta* 148, 145-158.
66. †Sanborn M., Carlson R., and Wadhwa M. (2015) $^{147,146}\text{Sm}$ - $^{143,142}\text{Nd}$, ^{176}Lu - ^{176}Hf , and ^{87}Rb - ^{87}Sr systematics in the angrites: Implications for chronology and processes on the angrite parent body. *Geochimica Cosmochimica Acta* 171, 80-99.
67. †Spivak-Birndorf L., †Bouvier A., Benedix G. K., Hammond S., Brennecke G., Howard K., Rogers N., Wadhwa M., Bland P. A., Spurný P., and Towner M. C. (2015) Geochemistry and chronology of the Bunburra Rockhole ungrouped achondrite. *Meteoritics and Planetary Science* 50, 958-975.

2014

68. †Brennecke G. A., Borg L. E. and Wadhwa M. (2014) Insights into the martian mantle: The age and isotopes of the meteorite fall Tissint. *Meteoritics and Planetary Science* 49, 412-418.
69. Chaumard N., Devouard B., †Bouvier A., and Wadhwa M. (2014) Metamorphosed calcium-aluminum inclusions in CK carbonaceous chondrites. *Meteoritics and Planetary Science* 49, 419-452.
70. Wadhwa M. (2014) Solar System time scales from long-lived radioisotopes in meteorites and planetary materials. *Treatise on Geochemistry 2nd Edition Vol. 1: Meteorites, Comets, and Planets* (Vol. Ed. A. M. Davis; Eds. in Chief H. D. Holland and K. K. Turekian), 397-418.

2013

71. Balta J. B., †Sanborn M., McSween H. Y., Jr., and Wadhwa M. (2013) Magmatic history and parental melt composition of olivine-phyric shergottite LAR 06319: Importance of magmatic degassing and olivine antecrysts in Martian magmatism. *Meteoritics and Planetary Science* 48, 1359-1382.
72. †Bouvier A., Wadhwa M., Simon S., and Grossman L. (2013) Magnesium isotopic fractionation in chondrules from the Murchison and Murray CM2 carbonaceous chondrites. *Meteoritics and Planetary Science* 48, 339-353.
73. †Brennecke G. A., Borg L. E. and Wadhwa M. (2013) Evidence of supernova injection into the solar nebula and the decoupling of r-process nucleosynthesis. *Proceedings of the National Academy of Sciences* 110, 17241-17246.

2012

74. †Brennecke G. A. and Wadhwa M. (2012) Uranium isotope compositions of the basaltic angrite meteorites and the chronological implications for the early Solar System. *Proceedings of the National Academy of Sciences* 109, 9221-9222.

2011

75. †Janney P. E., Richter F. M., Mendybaev R. A., Wadhwa M., Georg R. B., Watson E. B., and †Hines R. R. (2011) Matrix effects in the analysis of Mg and Si isotope ratios in natural and synthetic glasses by laser ablation-multicollector ICPMS: A comparison of single- and double-focusing mass spectrometers. *Chemical Geology* 281, 26-40.
76. †Bouvier A., †Spivak-Birndorf L., †Brennecke G. A., and Wadhwa M. (2011) New constraints on early Solar System chronology from Al-Mg and U-Pb isotope systematics in the unique basaltic achondrite Northwest Africa 2976. *Geochimica Cosmochimica Acta* 75, 5310-5323.

2010

77. †Bouvier A. and Wadhwa M. (2010) The age of the Solar System redefined by the oldest Pb-Pb age of a meteoritic inclusion. *Nature Geoscience* 3, 637-641.
78. †Brennecke G. A., Weyer S., Wadhwa M., †Janney P. E., Zipfel J., and Anbar A. D. (2010) $^{238}\text{U}/^{235}\text{U}$ variations in meteorites: Extant ^{247}Cm and implications for Pb-Pb dating. *Science* 327, 449-451.
79. MacPherson G., Bullock E. S., †Janney P. E., Kita N., Ushikubo T., Davis A. M., Wadhwa M., and

- Krot A. N. (2010) Early solar nebula condensates with canonical, not supracanonical, initial $^{26}\text{Al}/^{27}\text{Al}$ ratios. *Astrophysical Journal Letters* 711, L117-L121.
80. Usui T., †Sanborn M., Wadhwa M., and McSween H. Y., Jr. (2010) Petrology and trace element geochemistry of RBT 04261 and RBT 04262 meteorites, the first examples of geochemically enriched lherzolithic shergottites. *Geochimica Cosmochimica Acta* 74, 7283-7306.
- 2009**
81. Shearer C. K., Burger P. V., Neal C. R., Sharp Z., †Spivak-Birndorf L., Borg L. E., Fernandes V. A., Papike J. J., Karner J. M., Wadhwa M., Gaffney A. M., Shafer J., Geissman J., Atudorei N. V., Herd C., Weiss B. P., King P. L., Crowther S. A., and Gilmour J. D. (2009) Non-basaltic asteroidal magmatism during the earliest stages of solar system evolution: A view from Antarctic achondrites Graves Nunatak 06128 and 06129. *Geochimica Cosmochimica Acta* 74, 1172-1199.
82. †Spivak-Birndorf L., Wadhwa M., and †Janney P. E. (2009) ^{26}Al - ^{26}Mg Systematics in D'Orbigny and Sahara 99555 Angrites: Implications for High-Resolution Chronology Using Extinct Chronometers *Geochimica Cosmochimica Acta* 73, 5202-5211.
83. Wadhwa M., Amelin Y., Bogdanovski O., Lugmair G. W., and †Janney P. E. (2009) Ancient relative and absolute ages for a basaltic meteorite: Implications for time scales of planetesimal accretion and differentiation. *Geochimica Cosmochimica Acta* 73, 5189-5201.
- 2008**
84. †Cook D., Clayton R. N., Wadhwa M., †Janney P., and Davis A. M. (2008) Nickel isotopic composition of troilite from iron meteorites. *Geophysical Research Letters* 35, L01203, doi:10.1029/2007GL032431.
85. Dauphas N., †Cook D., Sacarabany A., Fröhlich C., Davis A. M., Wadhwa M., Pourmand A., Rauscher T., and Gallino R. (2008) Iron-60 evidence for early injection and efficient mixing of stellar debris in the protosolar nebula. *Astrophysical Journal* 686, 560-569.
86. †Qin L., Dauphas N., Wadhwa M., Markowski A., Gallino R., †Janney P. E., and Bouman C. (2008) Tungsten nuclear anomalies in planetesimal cores. *Astrophysical Journal* 674, 1234-1241.
87. †Qin L., Dauphas N., Wadhwa M., Masarik J., and †Janney P. E. (2008) Rapid accretion and differentiation of iron meteorite parent bodies inferred from ^{182}Hf - ^{182}W chronometry and thermal modeling. *Earth and Planetary Science Letters* 273, 94-104.
88. Shearer C. K., Burger P. V., Neal C. R., Sharp Z., Borg L. E., †Spivak-Birndorf L., Wadhwa M., Papike J. J., Karner J. M., Gaffney A. M., Shafer J., Weiss B. P., Geissman J., and Fernandes V. A. (2008) A unique glimpse into asteroidal melting processes in the early solar system from the Graves Nunatak 06128/06129 achondrites. *American Mineralogist* 93, 1937-1940.
89. Wadhwa M. (2008) Redox conditions on small bodies, the Moon and Mars. In *Oxygen in the Solar System* (Eds. G. MacPherson, D. W. Mittlefehldt, J. Jones), *Reviews in Mineralogy and Geochemistry* 68, 493-510.
- 2007**
90. †Cook D., Wadhwa M., Clayton R. N., Dauphas N., †Janney P., and Davis A. M. (2007) Mass-dependent fractionation of nickel isotopes in meteoritic metal. *Meteoritics and Planetary Science* 42, 2067-2077.
91. Dauphas N., van Zuilen M., Busigny V., Lepland A., Wadhwa M., and †Janney P. E. (2007) Iron isotope, major and trace element characterization of early Archean supracrustal rocks from SW Greenland: protolith identification and metamorphic overprint. *Geochimica Cosmochimica Acta* 71, 4745-4770.
92. †Qin L., Dauphas N., †Janney P. E., and Wadhwa M. (2007) Analytical developments for high-precision measurements of W isotopes in iron meteorites. *Analytical Chemistry* 79, 3148-3154.
93. Richter F., †Janney P., Mendybaev R., Davis A. M., and Wadhwa M. (2007) Elemental and isotopic fractionation of Type B CAI-like liquids by evaporation. *Geochimica Cosmochimica Acta* 71, 5544-5564.
94. †Teng F.-Z., Wadhwa M., and Helz R. (2007) The absence of magnesium isotope fractionation during basalt differentiation: A case study from Kilauea Iki lava lake, Hawaii, USA. *Earth and*

Planetary Science Letters 261, 84-92.

95. Wadhwa M., Amelin Y., Davis A. M., Lugmair G. W., Meyer B., Gounelle M., and Desch S. (2007) From dust to planetesimals: Implications for the solar protoplanetary disk from short lived radionuclides. *Protostars and Planets V* (Eds. B. Reipurth, D. Jewitt, and K. Keil), pp. 835-848.
96. Wadhwa M. (2007) Long-lived chronometers. *Treatise on Geochemistry Vol. 1: Meteorites, Comets, and Planets* (Vol. Ed. A. M. Davis; Eds. in Chief H. D. Holland and K. K. Turekian), doi:10.1016/B978-008043751-4/00227-3.

2006

97. Beck P., Barrat J. A., Gillet Ph., Wadhwa M., Franchi I., Greenwood R. C., Bohn M., Cotten J., van de Moortele B., and Reynard B. (2006) Petrography and geochemistry of the chassignite Northwest Africa 2737 (NWA 2737), *Geochimica Cosmochimica Acta* 70, 2127-2139.
98. †Cook D., Wadhwa M., †Janney P., Dauphas N., Clayton R. N., and Davis A. M. (2006) High precision measurements of non-mass dependent effects in nickel isotopes in meteoritic metal via multi-collector ICPMS. *Analytical Chemistry* 78, 8477-8484.
99. McCoy T. J., Ketcham R. A., Wilson L., Benedix G., Wadhwa M., and Davis A. M. (2006) Formation of vesicles in asteroidal basaltic meteorites, *Earth and Planetary Science Letters* 246, 102-108.
100. Wadhwa M., Srinivasan G., and Carlson R. W. (2006) Time scales of planetesimal differentiation in the early solar system. In *Meteorites and the Early Solar System II* (Eds. D. Lauretta and H. Y. McSween, Jr.), University of Arizona Press, Tucson, pp. 715-731.

2005

101. †Foley C. N., Wadhwa M., Borg L. E., †Janney P. E., †Hines R., and Grove T. L. (2005) The early differentiation history of Mars from ¹⁸²W-¹⁴²Nd isotope systematics in the SNC meteorites. *Geochimica Cosmochimica Acta* 69, 4557-4571.

2004

102. †Dauphas N., †Janney P. E., Mendybaev R., Wadhwa M., Richter F.M., Davis A.M., van Zuilen M., †Hines R., and †Foley C. N. (2004) Chromatographic separation and MC-ICPMS analysis of iron. Investigating mass dependent and independent isotope effects. *Analytical Chemistry* 76, 5855-5863.
103. †Dauphas N., van Zuilen M., Wadhwa M., Davis A. M., Marty B., and †Janney P. E. (2004) Clues from iron isotope variations on the origin of early Archean banded iron formations from Greenland. *Science* 306, 2077-2080.
104. Wadhwa M., Crozaz G., and Barrat J.-A. (2004) Trace element distributions in the Yamato 000593/000749, NWA 817 and NWA 998 nakhlites: Implications for their petrogenesis and mantle source on Mars. *Antarctic Meteorite Research* 17, 97-117.

2003

105. Crozaz G., Floss C., and Wadhwa M. (2003) Chemical alteration and REE mobilization in meteorites from hot and cold deserts. *Geochimica Cosmochimica Acta* 67, 4727-4741.
106. Galy A., Yoffe O., †Janney P.E., Williams R. W., Cloquet C., Alard O., Halicz L., Wadhwa M., Hutcheon I. D., Ramon E., and Carignan J. (2003) Magnesium isotope heterogeneity of the isotopic standard SRM980 and new reference materials for magnesium-isotope-ratio measurements. *Journal of Analytical Atomic Spectrometry* 18, 1352-1356.
107. Simon S. B., Grossman L., Clayton R. N., Mayeda T. K., Schwade J. R., Sipiera P. P., Wacker J. F., and Wadhwa M. (2003) The fall, recovery and classification of the Park Forest meteorite. *Meteoritics and Planetary Science* 39, 625-634.
108. Wadhwa M., Shukolyukov A., Davis A. M., Lugmair G. W., and Mittlefehldt D. W. (2003) Differentiation history of the mesosiderite parent body: Constraints from trace elements and manganese-chromium isotopic systematics of Vaca Muerta silicate clasts. *Geochimica Cosmochimica Acta* 67, 5047-5069.

2002

109. Gillet Ph., Barrat J. A., Deloule E., Wadhwa M., Jambon A., Sautter V., Devouard B., Neuville D.,

Benzerara K., and Lesourd M. (2002) Aqueous alteration in the Northwest Africa 817 (NWA 817) martian meteorite. *Earth and Planetary Science Letters* 203, 431-444.

2001

110. Crozaz G. and Wadhwa M. (2001) The terrestrial alteration of Saharan shergottites Dar al Gani 476 and 489: A case study of weathering in a hot desert environment. *Geochimica Cosmochimica Acta* 65, 971-977.
111. Wadhwa M. (2001) Redox state of Mars' upper mantle and crust from Eu anomalies in shergottite pyroxenes. *Science* 291, 1527-1530.
112. Wadhwa M., Lentz R. C. F., McSween H. Y., and Crozaz G. (2001) A petrologic and trace element study of Dar al Gani 476 and Dar al Gani 489: Twin meteorites with affinities to basaltic and lherzolitic shergottites. *Meteoritics and Planetary Science* 36, 195-208.

2000

113. Wadhwa M. and Russell S. S. (2000) Timescales of accretion and differentiation in the early solar system: The meteoritic evidence. *Protostars and Planets IV* (Eds. A. P. Boss, V. M. Manning and S. S. Russell), University of Arizona Press, Tucson, pp. 995-1018.

1999

114. McCoy T. J., Wadhwa M., and Keil K. (1999) New lithologies in the Zagami martian meteorite: Evidence for fractional crystallization of a single magma unit on Mars. *Geochimica Cosmochimica Acta* 63, 1249-1262.
115. Wadhwa M., McKay G. A., and Crozaz G. (1999) Trace element distributions in Yamato 793605, a chip off the "Martian lherzolite" block. *Antarctic Meteorite Research* 12, 168-182.

1998

116. Wadhwa M. and Crozaz G. (1998) The igneous crystallization history of an ancient martian meteorite from rare earth element distributions. *Meteoritics and Planetary Science* 33, 685-692.
117. Wadhwa M., Crozaz G., Taylor L. A., and McSween H. Y., Jr. (1998) Martian basalt (shergottite) QUE94201 and lunar basalt 15555: A tale of two pyroxenes. *Meteoritics and Planetary Science* 33, 321-328.

1997

118. Wadhwa M., Zinner E. K., and Crozaz G. (1997) Manganese-chromium systematics of sulfides in unequilibrated enstatite chondrites. *Meteoritics and Planetary Science* 32, 281-292.

1996

119. McSween H. Y., Jr., Eisenhour D. D., Taylor L. A., Wadhwa M., and Crozaz G. (1996) QUE94201 shergottite: Crystallization of a martian basaltic magma. *Geochimica Cosmochimica Acta* 60, 4563-4569.
120. Wadhwa M. and Lugmair G. W. (1996) The age of the eucrite Caldera from convergence of long- and short-lived chronometers. Letter to *Geochimica Cosmochimica Acta* 60, 4889-4893.

1995

121. Wadhwa M. and Crozaz G. (1995) Trace and minor elements in minerals in nakhlites and Chassigny: Clues to their petrogenesis. *Geochimica Cosmochimica Acta* 59, 3629-3645.

1994

122. Wadhwa M., McSween H. Y., Jr., and Crozaz G. (1994) Petrogenesis of shergottite meteorites inferred from trace and minor element microdistributions. *Geochimica Cosmochimica Acta* 58, 4213-4229.

1993

123. Harvey R. P., Wadhwa M., McSween H. Y., Jr., and Crozaz G. (1993) Petrography, mineral chemistry, and petrogenesis of Antarctic shergottite LEW88516. *Geochimica Cosmochimica Acta* 57, 4769-4783.
124. Jolliff B. L., Haskin L. A., Colson R. O., and Wadhwa M. (1993) Partitioning of REE-saturating

minerals: Theory, experiment, and modelling of whitlockite, apatite, and evolution of lunar residual magmas. *Geochimica Cosmochimica Acta* 57, 4069-4094.

REPORTS AND WHITE PAPERS

1. Czaja A.D., Zorzano M.-P., and MCSG team (Chairs: Kminek G. and Meyer M.A.; Members: Beaty D.W., Sefton-Nash E., Carrier B.L., Thiessen F., Haltigin T., Bouvier A., Dauphas N., French K.L., Hallis L.J., Harris R.L., Hauber E., Rodriguez L.E., Schwenzer S.P., Steele A., Tait K.T., Thorpe M.T., Usui T., Vanhomwegen J., Velbel M.A., Edwin S., Farley K.A., Glavin D.P., Harrington A.D., Hays L.E., Hutzler A., and Wadhwa M. (2023) Report of the science community workshop on the proposed first sample depot for the Mars Sample Return Campaign. *Meteoritics & Planetary Science*, DOI: 10.1111/maps.13981.
2. Carrier B.L., Beaty D.W., Hutzler A., Smith A.L., T., Kminek G., Meyer M.A., Haltigin T., Hayes L.E., Cavalazzi B., Cockell C. S., Debaille V., Glavin D.P., Grady M.M., Hauber E., Marty B., McCubbin F.M., Pratt L.M., Regberg A.B., Smith C., Summons R.E., Swindle T.D., Tait K.T., T.D., Tosca N.J., Udry A., Usui T., Velbel M.A., Wadhwa M., Westall F., and Zorzano M.-P. (2021) Science and curation considerations for the design of a Mars Sample Return (MSR) Sample Receiving Facility. *Astrobiology*, DOI: 10.1089/ast.2021.0110.
3. Grady M.M., Summons R.E., Swindle T.D., Westall F., Kminek G., Meyer M.A., Beaty D.W., Carrier B.L., Haltigin T., Hayes L.E., Agee C.B., Busemann H., Cavalazzi B., Cockell C. S., Debaille V., Glavin D.P., Hauber E., Hutzler A., Marty B., McCubbin F.M., Pratt L.M., Regberg A.B., Smith A.L., Smith C., Tait K.T., Tosca N.J., Udry A., Usui T., Velbel M.A., Wadhwa M., and Zorzano M.-P. (2021) The scientific importance of returning airfall dust as part of Mars Sample Return (MSR). *Astrobiology*, DOI: 10.1089/ast.2021.0111.
4. Haltigin T., Hauber E., Kminek G., Meyer M.A., Agee C.B., Busemann H., Carrier B.L., Glavin D.P., Hayes L.E., Marty B., Pratt L.M., Udry A., Zorzano M.-P., Beaty D.W., Cavalazzi B., Cockell C. S., Debaille V., Glavin D.P., Grady M.M., Hutzler A., McCubbin F.M., Regberg A.B., Smith A.L., Smith C., Summons R.E., Swindle T.D., Tait K.T., T.D., Tosca N.J., Usui T., Velbel M.A., Wadhwa M., and Westall F. (2021) Rationale and proposed design for a Mars Sample Return (MSR) science program. *Astrobiology*, DOI: 10.1089/ast.2021.0122.
5. Meyer M.A., Kminek G., Beaty D.W., Carrier B.L., Haltigin T., Hayes L.E., Agee C.B., Busemann H., Cavalazzi B., Cockell C. S., Debaille V., Glavin D.P., Grady M.M., Hauber E., Hutzler A., Marty B., McCubbin F.M., Pratt L.M., Regberg A.B., Smith A.L., Smith C., Summons R.E., Swindle T.D., Tait K.T., Tosca N.J., Udry A., Usui T., Velbel M.A., Wadhwa M., Westall F., and Zorzano M.-P. (2021) Final report of the MSR Science Planning Group 2 (MSPG2). *Astrobiology*, DOI: 10.1089/ast.2021.0121.
6. Tait K.T., McCubbin F., Smith C., Agee C.B., Busemann H., Cavalazzi B., Debaille V., Hutzler A., Usui T., Kminek G., Meyer M.A., Beaty D.W., Carrier B.L., Haltigin T., Hayes L.E., Cockell C. S., Glavin D.P., Grady M.M., Hauber E., Marty B., Pratt L.M., Regberg A.B., Smith A.L., Summons R.E., Swindle T.D., Tosca N.J., Udry A., Velbel M.A., Wadhwa M., Westall F., and Zorzano M.-P. (2021) Preliminary planning for Mars Sample Return (MSR) curation activities in a Sample Receiving Facility. *Astrobiology*, DOI: 10.1089/ast.2021.0105.
7. Tosca N.J., Agee C.B., Cockell C. S., Glavin D.P., Hutzler A., Marty B., McCubbin F., Regberg A.B., Velbel M.A., T., Kminek G., Meyer M.A., Beaty D.W., Carrier B.L., Haltigin T., Hayes L.E., Busemann H., Cavalazzi B., Debaille V., D.P., Grady M.M., Hauber E., Pratt L.M., Smith A.L., Smith C., Summons R.E., Swindle T.D., Tait K.T., Udry A., Usui T., Velbel M.A., Wadhwa M., Westall F., and Zorzano M.-P. (2021) Time-sensitive aspects of Mars Sample Return (MSR) science. *Astrobiology*, DOI: 10.1089/ast.2021.0115.
8. Velbel M.A., Cockell C. S., Glavin D.P., Marty B., Regberg A.B., Smith A.L., Tosca N.J., Wadhwa M., Kminek G., Meyer M.A., Beaty D.W., Carrier B.L., Haltigin T., Hayes L.E., Agee C.B., Busemann H., Cavalazzi B., Debaille V., Grady M.M., Hauber E., Hutzler A., McCubbin F.M., Pratt L.M., Smith C., Summons R.E., Swindle T.D., Tait K.T., Udry A., Usui T., Westall F., and

- Zorzano M.-P. (2021) Planning implications related to sterilization-sensitive science investigations associated with Mars Sample Return (MSR). *Astrobiology*, DOI: 10.1089/ast.2021.0113.
9. Milam S.N., Dwornik J.P., Elsila J.E., Glavin D. P., Gerakines P.A., Mitchell J.L., Nakamura-Messenger K., Neveu M., Nittler L., Parker J., Quintana E., Sandford S.A., Schlieder J.E, Stroud R., Trainer M.G., Wadhwa M., Westphal A.J., Zolensky M., Bodewits D., and Clemett S. (2020) Volatile Sample Return in the Solar System. White paper submitted to the Planetary Science and Astrobiology Decadal Survey 2023-2032.
 10. Heck P.R., Herd C., Grossman J.N., Badjukov D., Bouvier A., Bullock E., Chennaoui-Aoudjehane H., Debaille V., Dunn T.L., Ebel D.S., Ferrière L., Garvie L., Gattacceca J., Gounelle M., Herd R., Ireland T., Jacquet E., Macke R.J., McCoy T., McCubbin F.M., Mikouchi T., Metzler K., Roskosz M., Smith C., Wadhwa M., Welzenbach-Fries L., Yada T., Yamaguchi A., Zeigler R.A., and Zolensky M. (2019) Best practices for the use of meteorite names in publications. *Meteoritics and Planetary Science* 54, 1397-1400.
 11. iMOST (International MSR Objectives and Samples Team: co-chairs: D. W. Beaty, M. M. Grady, H. Y. McSween, E. Sefton-Nash; documentarian: B. L. Carrier; team members: F. Altieri, Y. Amelin, E. Ammannito, M. Anand, L. G. Benning, J. L. Bishop, L. E. Borg, D. Boucher, J. R. Brucato, H. Busemann, K. A. Campbell, A. D. Czaja, V. Debaille, D. J. Des Marais, M. Dixon, B. L. Ehlmann, J. D. Farmer, D. C. Fernandez-Remolar, J. Filiberto, J. Fogarty, D. P. Glavin, Y. S. Goreva, L. J. Hallis, A. D. Harrington, E. M. Hausrath, C. D. K. Herd, B. Horgan, M. Humayun, T. Kleine, J. Kleinhenz, R. Mackelprang, N. Mangold, L. E. Mayhew, J. T. McCoy, F. M. McCubbin, S. M. McLennan, D. E. Moser, F. Moynier, J. F. Mustard, P. B. Niles, G. G. Ori, F. Raulin, P. Rettberg, M. A. Rucker, N. Schmitz, S. P. Schwenzer, M. A. Sephton, R. Shaheen, Z. D. Sharp, D. L. Shuster, S. Siljestrom, C. L. Smith, J. A. Spry, A. Steele, T. D. Swindle, I. L. ten Kate, N. J. Tosca, T. Usui, M. J. Van Kranendonk, M. Wadhwa, B. P. Weiss, S. C. Werner, F. Westall, R. M. Wheeler, J. Zipfel, and M. P. Zorzano) (2019) The Potential Science and Engineering Value of Samples Delivered to Earth by Mars Sample Return. *Meteoritics & Planetary Science* 54 (3), p. 667-671.
 12. MSPG (MSR Science Planning Group: co-chairs M. Meyer and E. Sefton-Nash; facilitation D. W. Beaty and B. L. Carrier; and D. Bass, F. Gaubert, T. Haltigin, A. D. Harrington, M. M. Grady, Y. Liu, D. Martin, B. Marty, R. Mattingly, S. Siljestrom, E. Stansbery, K. Tait, M. Wadhwa, L. White) & C. C. Allen, H. Busemann, M. Calaway, M. Chaussidon, C. M. Corrigan, N. Dauphas, V. Debaille, D. P. Glavin, S. M. McLennan, K. Olsson-Francis, R. Shaheen, C. L. Smith, J. Thieme, T. Usui, M. A. Velbel, S. C. Werner (2019) The Relationship of MSR Science and Containment. Unpublished workshop report, posted 04/01/19 at <https://mepag.jpl.nasa.gov/reports/Science%20in%20Containment%20Report.pdf>

CONFERENCE PRESENTATIONS

1. †Distel A.G., Davidson J., Hervig R.L., and Wadhwa M. (2025) Anhydrous polishing of lunar samples: A comparative study. *56th Lunar and Planetary Science Conference*, #1107.
2. Herd C.D.K., Mayhew L.E., Bosak T., Hausrath E.M., Kronyak R., Hickman-Lewis K., Maki J.N., Ravanis E., Quantin-Nataf C., Shuster D.L., Siljestrom S., Simon J.I., Weiss B.P., Wadhwa M., Zorzano M.-P., Debaille V., Bell J.F. III, Farley K.A., and Stack K.M. (2025) The samples collected by the NASA Mars 2020 Perseverance rover mission: Enabling decadal science. *56th Lunar and Planetary Science Conference*, #1665.
3. Maki J.N., Farley K., Stack-Morgan K., Calef F., Bell J.F. III, Wadhwa M., Herd C.D.K., Gasnault O., and Wiens R. (2025) The Mars 2020 sample image compendium: Updates and status. *56th Lunar and Planetary Science Conference*, #2653.
4. †Nirwan N., Garvie L.A.J., Wittmann A., and Wadhwa M. (2025) Petrography of new basaltic shergottite Northwest Africa 17234. *56th Lunar and Planetary Science Conference*, #1254.
5. †Osterhaut J.T., Farley K.A., Wadhwa M., and Treffkorn J. (2025) Desorption of terrestrial noble gases in a Mars 2020 sample tube: Evaluating potential contamination for Mars Sample Return. *56th Lunar and Planetary Science Conference*, #2549.

6. Swann J.L., Williams D., Aranda A., Mead C.J., and Wadhwa M. (2025) NASA SCoPE: Connecting NASA missions to learners of all ages through the NASA Science Activation program. *56th Lunar and Planetary Science Conference*, #2800.
7. Aranda A., Swann J.L., Williams D.A., Mead C., and Wadhwa M. (2024) NASA SCoPE: Liaisons between NASA scientists and NASA Science Activation. *AGU Fall Meeting Abstracts*, #ED11G-2415.
8. Bosak T., Shuster D.L., Weiss B.P., Mayhew L.E., Scheller E.L., Siljestrom S., Farley K.A., Stack K., Brown A., Herd C.D.K., Hickman-Lewis K., Nunez J., Simon J.I., Bell III J., Benison K., Wadhwa M., and Williams A.J. (2024) Astrobiological potential of rocks acquired by the Perseverance rover at the front of the western sediment fan in Jezero Crater, Mars. *55th Lunar and Planetary Science Conference*, #1832.
9. Bosak T., Shuster D.L., Weiss B.P., Siljestrom S., Mayhew L.E., Scheller E.L., Simon J.I., Hickman-Lewis K., Stack K., Farley K.A., Bell J.F., Benison K., Brown A.J., Herd C.D.K., Madson M.B., Nunez J.I., Sharma S.K., Steele A., Wadhwa M., and Williams A.J. (2024) Astrobiological potential of rocks acquired by the Perseverance rover in Jezero Crater, Mars. *Astrobiology Science Conference 2024*, #203-01.
10. Bosak T., Shuster D.L., Weiss B.P., Siljestrom S., Simon J.I., Hickman-Lewis K., Herd C.D.K., Sharma S.K., Martinez-Frias J., Wadhwa M., Stack K., and Farley K.A. (2024) Astrobiological potential of rocks acquired by the Perseverance rover in Jezero Crater, Mars. *AGU Fall Meeting Abstracts*, #U54A-08.
11. Debaille V., Herd C.D.K., Bosak T., Farley K.A., Stack K.M., Benison K.C., Cohen B.A., Czaja A.D., Goreva Y., Hausrath E.M., Hickman-Lewis K., Mayhew L., Quantin-Nataf C., Ravanis E., Sephton M., Shuster D.L., Simon J.I., Siljestrom S., Wadhwa M., Weiss B.P., and Zorzano M.-P. (2024) Igneous samples collected by the Mars 2020 Perseverance rover for Mars Sample Return: Scientific perspectives and future steps. *86th Annual Meteoritical Society Meeting*, #6214.
12. †Distel A.G., †Davidson J., Wadhwa M., Hervig R.L., Sutton S.R., and Lanzirrotti A. (2024) Correlated H₂O- δ D systematics and iron and chromium valences of nominally anhydrous minerals in the lunar basaltic breccia meteorite Elephant Moraine (EET) 87521. *55th Lunar and Planetary Science Conference*, #1721.
13. †Distel A.G., Davidson J., Wadhwa M., and Hervig R.L. (2024) The H₂O- δ D systematics of nominally anhydrous minerals in the shocked lunar basaltic meteorites Miller Range 05035 and Asuka 881757. *86th Annual Meteoritical Society Meeting*, #6205.
14. Farley K.A. and Wadhwa M. (2024) A sample cache worthy of Mars Sample Return. *AGU Fall Meeting Abstracts*, #U54A-07.
15. Farley K.A., Herd C.D.K., Bosak T., Stack K.M., Benison K.C., Czaja A.D., Debaille V., Hausrath E.M., Mayhew L.E., Randazzo N., Shuster D.L., Siljestrom S., Simon J.I., Wadhwa M., Weiss B.P., Zorzano M.P., and Brown A.J. (2024) Sampling by the NASA persebrance rover for Mars Sample Return: An update. *Tenth International Conference on Mars*, #3177.
16. Kminek G., Meyer M.A., Hays L.E., Sefton-Nash E., Carrier B.L., Thiessen F., Haltigin T., Bouvier A., Czaja A.D., Dauphas N., French K.L., Hallis L.J., Harris R.L., Hauber E., Rodriguez L.E., Schwenzer S.P., Steele A., Tait K.T., Thorpe M.T., Usui T., Vanhomwegen J., Velbel M.A., Zorzano M.P., Edwin S., Farley K.A., Glavin D.P., Harrington A.D., Hutzler A., and M. Wadhwa (2024) Science objectives for Mars Sample Return. *Tenth International Conference on Mars*, #3172.
17. Maki J., Farley K.A., Stack K., Bell J.F., Wadhwa M., Calef F.J., III, Herd C.D.K., Gasnault O., Weins R.C., and The Mars 2020 Science and Operations Teams (2024) The Mars 2020 Sample Image Compendium: Updates and status. *AGU Fall Meeting Abstracts*, #U51C-2518.
18. Maki J., Farley K.A., Stack K., Calef F.J., Williams N., Bell III J.F., Herd C.D.K., Wadhwa M., Brown A. (2024) The Mars 2020 Three Forks Depot. *Tenth International Conference on Mars*, #3466.
19. Maki J., Farley K.A., Stack K., Calef F.J., Bell III J.F., Wadhwa M., and Herd C.D.K. (2024) The Mars 2020 Sample Image Compendium. *55th Lunar and Planetary Science Conference*, #1291.

20. Maki J., Farley K.A., Stack-Morgan K., Calef F.J., Bell III J.F., Wadhwa M., and Herd C.D.K. (2024) The Mars 2020 Sample Image Compendium. *Tenth International Conference on Mars*, #3499.
21. Mayhew L.E., Quantin-Nataf C., Scheller E.L., Simon J.I., Weiss B.P., Horgan B., Deahn M., Bedford C.C., Hausrath E.M., Klidas A., Stack K., Farley K., Herd C.D.K., Siljestrom A., and Wadhwa M. (2024) The scientific value of collecting samples from the Jezero Crater rim. *55th Lunar and Planetary Science Conference*, #2602.
22. Mayhew L.E., Quantin-Nataf C., Scheller E.L., Simon J.I., Bosak T., Weiss B.P., Horgan B., Brown A.J., Deahn M., Fairen A.G., Farley K.A., Hausrath E.M., Herd C.D.K., Johnson J.R., Randazzo N., Sharma S.K., Stack K., and Wadhwa M. (2024) The scientific significance of potential samples from the Jezero Crater rim. *Astrobiology Science Conference 2024*, #305-03.
23. Mayhew L.E., Quantin-Nataf C., Scheller E.L., Simon J.I., Weiss B.P., Horgan B., Deahn M., Ravanis E., Alwmark S., Bedford C.C., Broz A., Hausrath E.M., Klidas A., Stack K., Farley K., Herd C.D.K., Siljestrom A., Wadhwa M., and the Mars 2020 Science Team. The scientific value of collecting samples from the Jezero Crater rim. *Tenth International Conference on Mars*, #3549.
24. †Osterhaut J.T., Farley K.A., Wadhwa M., Treffkorn J., Yazzie A.D., and Sprunt A.D. (2024) Atmospheric science considerations for Mars 2020 sample tubes and potential sample return. *55th Lunar and Planetary Science Conference*, #2571.
25. Quantin-Nataf C., Mayhew L.E., Ravanis E.M., Herd C.D.K., Farley K.A., Stack K., Simon J.I., Kronyak R., Deahn M., Horga B.H.N., Scheller E.L., Hausrath E., Ehlmann B.L., Wadhwa M., Bedford C.C., Weins R.C., Klidas A., Jones A., Barnes R., Johnson J.R., Crumpler L.S., and Calef, F.J., III (2024) First science results from the Mars 2020 Perseverance rover Crater Rim Campaign and implications for Mars Sample Return. *AGU Fall Meeting Abstracts*, #P01-01.
26. Siljestrom S., Herd C., Bosak T., Farley K., Stack K., Benison K., Czaja A., Debaille V., Hausrath E., Hickman-Lewis K., Mayhew L., Sephton M., Shuster D., Simon J., Wadhwa M., Zorzano M.-P., and Weiss B. (2024) Samples collected by Mars 2020 Perseverance at Jezero Crater for Mars Sample Return. Europlanet Science Congress, #1049 (<https://doi.org/10.5194/epsc2024-1049>).
27. Wadhwa M. and Farley K.A. (2024) The current status of the Mars Sample Return program and sample collection by the Perseverance rover. *55th Lunar and Planetary Science Conference*, #2573.
28. Weiss B.P., Nachon M., Siebach K., Farley K.A., Stack K., Bosak T., Bell III J.F., Benison K.C., Czaja A.D., Debaille V., Hausrath E.M., Herd C.D.K., Hickman-Lewis K., Mayhew L.E., Sephton M.A., Sholes S.F., Shuster D.L., Siljestrom S., Simon J.I., Wadhwa M., and Zorzano M.-P. (2024) Perseverance samples from the Jezero Upper Fan. *55th Lunar and Planetary Science Conference*, #1843.
29. Williams D.A., Swann J.L., Aranda A., Mead C., and Wadhwa M. (2024) How SCoPE brings diverse Subject Matter Experts to the NASA Science Activation Program. *AGU Fall Meeting Abstracts*, #SY31D-2334.
30. Yokoyama T., Wadhwa M., Iizuka T., Rai V., Gautum I., Hibiya Y., Masuda Y., Haba M.K., Fukai R., Hines R., Phelan N., The Hayabusa2-initial-analysis Chemistry Team and Core (2024) Nucleosynthetic Cr-Ti isotope anomalies in Ryugu samples. *55th Lunar and Planetary Science Conference*, #1320.
31. Czaja A.D., Zorzano M.-P., Kminek G., Meyer M.A., Beaty D.W., Sefton-Nash E., Carrier B.L., Thiessen F., Haltigin T., Bouvier A., Dauphas N., French K.L., Hallis L.J., Harris R.L., Hauber E., Rodriguez L.E., Schwenzer S.P., Steele A., Tait K.T., Thorpe M.T., Usui T., Vanhomwegen J., Velbel M.A., Edwin S., Farley K.A., Glavin D.P., Harrington A.D., Hays L.E., Hutzler A., and Wadhwa M. (2023) Outcomes of the science community workshop on the Mars 2020 mission first sample depot for the Mars Sample Return campaign. *54th Lunar and Planetary Science Conference*, #2523.
32. †Davidson J., Wadhwa M., Sutton S.R., Hervig R. L., and Thordarson T. (2023) Correlated microscale investigations of hydrogen isotopes, water concentrations, and redox state of nominally anhydrous minerals in Icelandic basalts: Implications for magmatic processes on Mars. *54th Lunar and Planetary Science Conference*, #1287.

33. †Distel A.G., †Davidson J., Wadhwa M., and Hervig R. L. (2023) Water on the Moon: Insights from nominally anhydrous minerals in the lunar basaltic breccia meteorite Elephant Moraine 87521. *54th Lunar and Planetary Science Conference*, #1754.
34. Herd C.D.K., Bosak T., Farley K.A., Stack K.M., Benison K.C., Cohen B.A., Czaja A.D., Debaille V., Goreva Y., Hausrath E.M., Hickman-Lewis K., Mansbach E.N., Mayhew L.E., Sephton M.A., Randazzo N., Shuster D.L., Siljestrom S., Simon J.I., Wadhwa M., Weiss B.P., Zorzano M.-P., and Brown A.J. (2023) Sampling by the NASA Perseverance rover for Mars Sample Return. *54th Lunar and Planetary Science Conference*, #2185.
35. Herd C.D.K., Bosak T., Farley K.A., Stack K.M., Benison K.C., Cohen B.A., Czaja A.D., Debaille V., Goreva Y., Hausrath E.M., Hickman-Lewis K., Mansbach E.N., Mayhew L.E., Sephton M.A., Randazzo N., Shuster D.L., Siljestrom S., Simon J.I., Wadhwa M., Weiss B.P., Zorzano M.-P., and Brown A.J. (2023) Sampling by the NASA Perseverance rover for Mars Sample Return. *85th Annual Meteoritical Society Meeting*, #6140.
36. Horgan B., Bell J., Garczynski B., Johnson J.R., Mandon L., Milon C., St. Clair M., Vaughan A., Udry A., Herd C.D.K., Fagents S., Randazzo N., Ravanis E., Simon J.I., and Wadhwa M. (2023) Mineralogical diversity of Jezero crater, Mars from orbit and rover observations and implications for Mars Sample Return. *Goldschmidt Abstracts*.
37. Kminek G., Meyer M., Beaty D., Haltigin T., Carrier B., Hays L., Wadhwa M., and Thiessen F. (2023) Mars Sample Return science management. *European Geosciences Union*, #EGU-8764.
38. Liu Y., Allwood A.C., Treiman A.H., Schmidt M.E., Asimov P.D., Beyssac O., Herd C.D.K., Clark B.C., Wadhwa M., Brown A., Kizovski T.V., Henneke J., Pedersen D.A.K., VanBommel S.J., Tice M.M., Jones M.W.M., Hurowitz J.A., Hernandez-Montenegro J.D., Knight A.L., and Sharma S. (2023) The nature of igneous olivine cumulate rocks in Jezero crater, Mars. *54th Lunar and Planetary Science Conference*, #1311.
39. Maki J.N., Farley K., Stack K., Calef F., Williams N., Bell III J.F., Herd C.D.K., Wadhwa M., and Brown A. (2023) The Mars 2020 Three Forks Sample depot. *54th Lunar and Planetary Science Conference*, #2875.
40. Maki J.N., Farley K., Stack K., Calef F., Williams N., Bell III J.F., Herd C.D.K., Wadhwa M., and Brown A. (2023) The Mars 2020 Three Forks Sample depot. *European Geosciences Union*, #EGU-10402.
41. Maki J.N., Farley K., Stack K., Bell III J.F., Herd C.D.K., Wadhwa M., Calef III F., Paar G., Nunez J.I., and Randazzo N. (2023) Images of the Mars 2020 Sample Collection. *AGU Fall Meeting Abstracts*, #P41E-3229.
42. Miura J.K., Ehlmann B.L., Wadhwa M., Swann J.L., Williams D.A., Day B.H., Law E., Cass M., and Neff R. (2023) Designing STEM learning experiences for youth with Lunar Trailblazer. *AGU Fall Meeting Abstracts*, #ED11B-0761.
43. †Osterhaut J.T., Farley K.A., Wadhwa M., Treffkorn J., and Kulczycki E. (2023) New leak rate measurements of flight-like Mars 2020 sample tubes: Insights for potential Mars Sample Return. *54th Lunar and Planetary Science Conference*, #2506.
44. †Phelan N.D., †Rai V.K., †Hines R., and Wadhwa M. (2023) Titanium isotope anomalies in carbonaceous chondrites: Implications for isotopic heterogeneity in the early Solar System. *54th Lunar and Planetary Science Conference*, #1396.
45. Schmidt M.E., Allwood A., Brown A., Christian J., Crumpler L., Henneke J., Herd C.D.K., Henley T., Hernandez Montenegro J.D., Horgan B., Hurowitz J.A., Kizovski T.V., Knight A., Labrie J., Li A.Y., Morris R.V., Pederson D.A.K., Shuster D.L., Simon J.I., Tice M., Tosca N., Treiman A.H., Udry A., VanBommel S., Wadhwa M., and Yanchilina A. (2023) Sid: The most fractionated martian magma to date and its crustal evolution. *54th Lunar and Planetary Science Conference*, #1368.
46. Swann J.L., Wadhwa M., Williams D.A., and Mead C. (2023) Providing support for Subject Matter Experts to engage in eclipse events. *AGU Fall Meeting Abstracts*, #U41B-0861.
47. Tang Y., Wadhwa M., Swann J.L., and Williams D.A. (2023) Enriching youth STEM learning with OSIRIS-REx. *AGU Fall Meeting Abstracts*, #ED11B-0762.

48. Wadhwa M., Distel A., Davidson J., Sutton S.R., and Lanziorotti A. (2023) Combined D/H-H₂O systematics and valences of iron and chromium in pyroxenes in the lunar basaltic meteorite Elephant Moraine 96008. *85th Annual Meteoritical Society Meeting*, #6051.
49. Wadhwa M., Masuda Y., †Rai V.K., Gautum I., Haba M.K., Yokoyama T., †Hines R., Hayabusa2 Initial Analysis Chemistry Team, Hayabusa2 Initial Analysis Core (2023) Radiogenic, nucleosynthetic, and stable isotope variations in strontium in samples returned by Hayabusa2 of Cb-type asteroid Ryugu. *54th Lunar and Planetary Science Conference*, #1575.
50. Wadhwa M., Swann J.L., Williams D.A., and Mead C. (2023) NASA SCoPE: Enhancing engagement with NASA missions, broadening participation, and strengthening collaborations in NASA Science Activation program (SciAct). *AGU Fall Meeting Abstracts*, #ED11A-09.
51. Williams A.J., Russell P.S., Sun V.Z., Shuster D.L., Stack K.M., Farley K., Del Sesto T., Kronyak R., Bell III J.F., Beyssac O., Brown A., Caravaca G., Gupta A., Nunez J., Randazzo N., Simon J.I., and Wadhwa M. (2023) Exploring the Jezero delta front: Overview of results from the Mars 2020 Perseverance rover's second science campaign. *54th Lunar and Planetary Science Conference*, #1652.
52. Carrier B.L., Kminek G., Meyer M.A., Beaty D.W., Wadhwa M., Thiessen F., and Hays L.E. (2022) Mars Sample Return: Planning for returned sample science. *84th Annual Meteoritical Society Meeting*, #6511.
53. Cohen B.A., Benison K.C., Bosak T., Czaja A.D., Debaille V., Hausrath E.M., Herd C.D.K., Hickman-Lewis K., Mayhew L.E., Sephton M.A., Shuster D.L., Siljestrom S., Simon J.I., Weiss B.P., Zorzano M.-P., Wadhwa M., Hand K.P., Sun V.Z., Stack K.M., and Farley K.A. (2022) The Jezero crater floor sample suite collected by Mars 2020 Perseverance rover. *84th Annual Meteoritical Society Meeting*, #6365.
54. Dauphas N., +77 co-authors, including Wadhwa M. (2022) Sampling mass and chemical heterogeneities among Ryugu samples returned by the Hayabusa2 mission. *53rd Lunar and Planetary Science Conference*, #1409.
55. †Davidson J., Wadhwa M., Sutton S.R., and Hervig R. L. (2022) Water on Mars: Insights from correlated microscale investigations of hydrogen isotopes, water abundances, and iron valence of pyroxene in the regolith breccia Northwest Africa 7034. *53rd Lunar and Planetary Science Conference*, #1546.
56. †Davidson J., Wadhwa M., Sutton S.R., and Hervig R. L. (2022) Water on Mars: Correlated microscale analyses of hydrogen isotopes, water contents, and redox state in martian pyroxenes. *84th Annual Meteoritical Society Meeting*, #6109.
57. †Distel A.G., †Davidson J., Wadhwa M., and Hervig R. L. (2022) Water on the Moon: Insights from nominally anhydrous pyroxene in lunar basaltic meteorite Elephant Moraine 96008. *84th Annual Meteoritical Society Meeting*, #6120.
58. †Distel A.G., Hervig R. L., †Davidson J., Wadhwa M., and Stephant A. (2022) Using ion implants to quantify hydrogen in nominally anhydrous minerals. *53rd Lunar and Planetary Science Conference*, #1732.
59. Hays L.E., Beaty D.W., Carrier B.L., Haltigin T., Kminek G., Meyer M.A., Thiessen F., and Wadhwa M. (2022) Mars Sample Return campaign science management overview. *AGU Fall Meeting Abstracts*, #P56A-01.
60. Herd C.D.K., Benison K.C., Bosak T., Cohen B.A., Czaja A.D., Debaille V., Hausrath E.M., Hickman-Lewis K., Mayhew L.E., Sephton M.A., Shuster D.L., Siljestrom S., Simon J.I., Weiss B.P., Zorzano M.-P., Wadhwa M., Hand K.P., Sun V.Z., McLennan S.M., Stack K.M., and Farley K.A. (2022) Documenting sampling by the NASA Perseverance mission: In support of Mars Sample Return. *84th Annual Meteoritical Society Meeting*, #6328.
61. Hickman-Lewis K., Benison K., Bosak T., Cohen B.A., Czaya A.D., Debaille V., Hausrath E.M., Herd C.D.K., Mayhew L.E., Sephton M.A., Shuster D.L., Siljestrom S., Simon J.I., Weiss B.P., Zorzano M.-P., Shkolyar S., Bell III J.F., Kah L.C., Madariaga J.M., Wadhwa M., Hand K.P., and Sun V.Z. (2022) Perseverance rover sampling activities at South Seitah, Jezero crater. *53rd Lunar and Planetary Science Conference*, #1965.

62. Horgan B., Rice M., Garczynski B., Johnson J., Stack-Morgan K., Vaighan A., Wogsland B., Bell III J.F., Crumpler L., Ehlmann B., Holm-Alwmark S., Farley K., Fagents S., Nunez J.I., Paar G., Ravanis E., Shuster D., Simon J.I., Udry A., Wadhwa M., and Wiens R.C. (2022) Mineralogy, morphology, and geochronological significance of the Maaz formation and the Jezero crater floor. *53rd Lunar and Planetary Science Conference*, #1680.
63. Horgan B., Udry A., Rice M.S., Holm-Alwmark S., Bell III J.F., Crumpler L., Garczynski B., Johnson J.R., Kinch K.M., Merusi M., Million C., Nunez J.I., Simon J.I., St. Clair M., Stack K., Vaighan A.F., Wogsland B., Annex A., Benzerara K., Brown A.J., Cloutis E., Ehlmann B., Fagents S., Kah L.C., Farley K., Flannery D., Mandon L., Paar G., Quantin-Nataf C., Ravanis E.M., Sholes S., Shuster D., Tosca N.J., Wadhwa M., and Wiens R.C. (2022) Emplacement history of lava flows of the Maaz formation on the Jezero crater floor: Geochronological significance and relationship with the data. *AGU Fall Meeting Abstracts*, #P56A-07.
64. †Kroemer C.R., Wittmann A., Wadhwa M., and Sharp T.G. (2022) Tissintite-II and other high pressure high temperature minerals in lunar meteorite Northwest Africa 13967. *53rd Lunar and Planetary Science Conference*, #1316.
65. Meyer M., Kminek G., Beaty D., Haltigin T., Carrier B., Hays L., Wadhwa M., and Thiessen (2022) Mars Sample Return campaign, the science opportunity and challenge. *44th COSPAR Scientific Assembly*, #439.
66. †Rai V.K., †Franco G.S., †Hines R., and Wadhwa M. (2022) Precise and accurate determination of strontium isotope composition using MC-ICPMS. *53rd Lunar and Planetary Science Conference*, #2865.
67. †Ray S., Schrader D.L., †Rai V. K., and Wadhwa M. (2022) Combined iron and silicon isotope compositions of ungrouped achondrites: Evaluating the role of degree of differentiation and redox conditions. *84th Annual Meteoritical Society Meeting*, #6460.
68. Schmidt M.E., Allwood A., Christian J., Clark B.C., Flannery D., Hennecke J., Herd C.D.K., Horowitz J.A., Kizovski T.V., Liu Y., McLennan S.M., Nachon M., Pederson D.A.K., Shuster D.L., Simon J.I., Tice M., Tosca N., Treiman A.H., Udry A., VanBommel S., and Wadhwa M. (2022) Highly differentiated basaltic lavas examined by PIXL in Jezero crater. *53rd Lunar and Planetary Science Conference*, #1530.
69. Schmidt M.E., Allwood A., Brown A.J., Christian J., Clark B.C., Debaille V., Flannery D., Hennecke J., Herd C.D.K., Horowitz J.A., Kizovski T.V., Liu Y., McLennan S.M., Nachon M., Pederson D.A.K., Shuster D.L., Simon J.I., Tice M., Tosca N., Treiman A.H., Udry A., VanBommel S., and Wadhwa M. (2022) Highly differentiated lavas examined by PIXL in Jezero crater. *AGU Fall Meeting Abstracts*, #P52C-1553.
70. Schmidt M.E., Allwood A., Christian J., Clark B.C., Flannery D., Hennecke J., Herd C.D.K., Horowitz J.A., Kizovski T.V., Liu Y., McLennan S.M., Nachon M., Pederson D.A.K., Shuster D.L., Simon J.I., Tice M., Tosca N., Treiman A.H., Udry A., VanBommel S., and Wadhwa M. (2022) Highly differentiated lavas examined by M2020 PIXL in Jezero crater. *AAS/DPS Meeting Abstracts* 54, #503.03
71. Schrader D.L., McCoy T.J., †Davidson J., Lunning N.G., †Torrano Z.A., Windmill R., Nagashima K., Corrigan C.M., Greenwood R.C., Rai V.K., and Wadhwa M. (2022) IIAB iron meteorites: Formation and relation to other meteorite groups. *84th Annual Meteoritical Society Meeting*, #6132.
72. Simon J.I., Amundsen H.E.F., Beegle L.W., Bell J., Benison K.C., Berger E.L., Bosak T., Casademont T.M., Czaja A.D., Cohen B.A., Debaille V., Fairen A.G., Farley K.A., Fox A.C., Goreva Y., Hand K., Hamran S.-E., Hausrath E.m., Herd C.D.K., Horgan B., Hurowitz J., Lee C.H., Mandon L., Maurice S., Madariaga J.M., Mayhew L.E., McLennan S., Moeller R.C., Scheller E.L., Sharma S., Siljestrom S., Sun V.Z., Shuster D.L., Stack K.M., Udry A., VanBommel S., Wadhwa M., Weiss B.P., Wiens R.C., Williams A., Willis P.A., Zorzano M.-P., Mars 2020 Team (2022) Sampling of Jezero crater Maaz formation by Mars 2020 Perseverance rover. *53rd Lunar and Planetary Science Conference*, #1294.
73. Wadhwa M. and Farley K.A. (2022) Strategy for maximizing science from samples collected by Perseverance in the context of the Mars Sample Return program architecture. *AGU Fall Meeting Abstracts*, #P56A-03.

74. Wadhwa M., Carrier B.L., and Goreva Y. (2022) Sample science integrity considerations for the Mars Sample Return program. *53rd Lunar and Planetary Science Conference*, #2717.
75. Wadhwa M., Sutton S.R., Lanziorotti A., †Distel A.G., and †Davidson J. (2022) Iron and chromium valences of pyroxenes in the lunar basaltic meteorite Elephant Moraine 96008: Implications for redox conditions and magmatic processes on the Moon. *84th Annual Meteoritical Society Meeting*, #6501.
76. Wadhwa M., Swann J.L., Williams D.A., and Mead C. (2022) NASA SCoPE: Future plans for enhancing engagement with NASA missions, broadening participation, and strengthening collaborations in SciAct. *AGU Fall Meeting Abstracts*, #ED25A-08.
77. Carrier B.L., Beaty D.W., Smith A.L., Hutzler A., Meyer M.A., Kminek G., Haltigin T., Agee C., Busemann H., Cavalazzi B., Cockell C.S., Debaille V., Glavin D.P., Grady M.M., Hauber E., Marty B., McCubbin F.M., Pratt L.M., Regberg A.B., Smith C.L., Summons R.E., Swindle T.D., Tait K.T., Tosca N.J., Udry A., Usui T., Velbel A., Wadhwa M., Westall F., and Zorzano M.-P. (2021) Defining the science and curation functionalities for a Mars Sample Return Science (MSR) Sample Receiving Facility (SRF). *Lunar and Planetary Science Conference LII*, #1704.
78. †Davidson J., Wadhwa M., Sutton S., and Hervig R. L. (2021) Water on Mars: Insights from correlated microscale investigations of hydrogen isotopes, water abundances, and iron valence of nominally anhydrous pyroxene in nakhlites. *Lunar and Planetary Science Conference LII*, #2103.
79. Kminek G., Meyer M.A., Haltigin T., Beaty D.W., Carrier B.L., Agee C., Busemann H., Cavalazzi B., Cockell C.S., Debaille V., Glavin D.P., Grady M.M., Hauber E., Hutzler A., Marty B., McCubbin F.M., Pratt L.M., Regberg A.B., Smith A.L., Smith C.L., Summons R.E., Swindle T.D., Tait K.T., Tosca N.J., Udry A., Usui T., Velbel A., Wadhwa M., Westall F., and Zorzano M.-P. (2021) Mars Sample Return Science Planning Group Phase 2 (MSPG2): Overview and interim report. *Lunar and Planetary Science Conference LII*, #1700.
80. MSPG2 Team, Beaty D.W., Carrier B.L., Kminek G., Meyer M.A., Haltigin T., Hays L.E., Agee C., Busemann H., Cavalazzi B., Cockell C.S., Debaille V., Glavin D.P., Grady M.M., Hauber E., Hutzler A., Marty B., McCubbin F.M., Pratt L.M., Regberg A.B., Smith A.L., Smith C.L., Summons R.E., Swindle T.D., Tait K.T., Tosca N.J., Udry A., Usui T., Velbel A., Wadhwa M., Westall F., and Zorzano M.-P. (2021) Summary of Mars Sample Return (MSR) Science Planning Group 2: Planning for the arrival and analysis of MSR sample at Earth. *83rd Annual Meteoritical Society Meeting*, #6242.
81. †Ray S. and Wadhwa M. (2021) Correlated iron and silicon isotope compositions of aubrites as tracers of differentiation processes. *Lunar and Planetary Science Conference LII*, #2652.
82. Wadhwa M., Williams D. A., Swann J. L., Anbar A. D., Mead C. J., Bell J. F. III, Asner G. P., Bossert K., and Shkolnik E. L. (2021) The NASA SMD Community of Practice for Education (SCoPE): A new Science Activation Program Integration project to connect SMEs with NASA SciAct. *Lunar and Planetary Science Conference LII*, #2515.
83. †Davidson J., Wadhwa M., and Hervig R. L. (2020) Water on Mars: Insights from nominally anhydrous pyroxene in Lafayette, Nakhla, and Northwest Africa 7034. *Lunar and Planetary Science Conference LI*, #1660.
84. †Dunham E., Desch S. J., Wadhwa M., and Schrader D. (2020) Reassessment of the heterogeneity of aluminum-26 in the solar nebula. *Lunar and Planetary Science Conference LI*, #1019.
85. †Ray S., Wadhwa M., and †Rai V. K. (2020) A new method for coupled investigation of silicon and iron isotopes in the same sample: Application to understanding accretion and differentiation processes on meteorite parent bodies. *Lunar and Planetary Science Conference LI*, #2558.
86. †Torrano Z. A., †Davidson J., and Wadhwa M. (2020) The reclassification of Northwest Africa (NWA) 2900 from CV3 to CK3 chondrite. *Lunar and Planetary Science Conference LI*, #1748.
87. †Torrano Z. A., †Schrader D., Greenwood R. C., Rai V. K., and Wadhwa M. (2020) Evaluating the relationship between CM and CO chondrites using chromium, titanium, and oxygen isotopes. *Lunar and Planetary Science Conference LI*, #2524.
88. Carrier B. L., Grady M. M., McSween H. Y., Jr., Sefton-Nash E., Beaty D. W., and the iMOST Team (including M. Wadhwa) (2019) Revisiting the proposed scientific objectives for Mars sample return. *Ninth International Conference on Mars*, #6236.

89. †Davidson J., Wadhwa M., Hervig R. L., and Stephant A. (2019) Water on Mars: Insights from apatite in regolith breccia NWA 7034. *Lunar and Planetary Science Conference L*, #1596.
90. †Davidson J., Wadhwa M., and Hervig R. L. (2019) Water on Mars: Insights from nominally anhydrous pyroxene in Nakhla and Northwest Africa 7034. *82nd Annual Meteoritical Society Meeting*, #6198.
91. †Dunham E., Wadhwa M., Liu M.-C., Hertwig A. T., Kita N., Fukuda K., Schrader D. L. and Davidson J. (2019) Pristine CR2 CAIs preserve initial abundances of short-lived radionuclides ¹⁰Be and ²⁶Al. *Lunar and Planetary Science Conference L*, #1928.
92. †Dunham E., Liu M.-C., Hertwig A. T., Desch S. J., and Wadhwa M. (2019) CO3 and CH/CB CAIs suggest ¹⁰Be was distributed uniformly in the solar nebula. *82nd Annual Meteoritical Society Meeting*, #6346.
93. †Dunlap D. R., Wadhwa M., Krestianinov E., Koefoed P. K., Amelin Y., and Warren P. (2019) Chronology of the eucrite Northwest Africa 8661: A record of ancient volcanism on Vesta. *Lunar and Planetary Science Conference L*, #2832.
94. Grady M. M., Meyer M. A., Sefton-Nash E., Beaty D. W., Carrier B. L., Bass D., Gaubert F., Haltigin T., Harrington A. D., Liu Y., Marty B., Mattingly R., Siljeström S., Stansbery E., Tait K., Wadhwa M., White L., MSR Science Planning Group (MSPG) (2019) Laying the groundwork: Advance planning in preparation for scientific analysis of samples returned from Mars. *82nd Annual Meteoritical Society Meeting*, #6432.
95. Haltigin T. W., Meyer M. A., Sefton-Nash E., Beaty D. W., Bass D. S., Carrier B. L., Grady M. M., on behalf of the MSR Science Planning Group (MSPG) (2019) Developing a potential international science program for samples returned from Mars: Strategies and considerations. *Ninth International Conference on Mars*, #6244.
96. Hertwig A. T., †Dunham E., Liu M.-C., and Wadhwa M. (2019) Mesquite: Petrography, Aluminum-26 chronometry, and Be-B systematics of an unusually large melilite-rich CAI from the Northwest Africa (NWA) 7892 CO3.0 chondrite. *Lunar and Planetary Science Conference L*, #2955.
97. Meyer M. A., Sefton-Nash E., Beaty D. W., Grady M. M., Haltigin T., Martin D., Marty B., Siljeström S., Stansbery E. K., Wadhwa M., Carrier B. L., Harrington A. D., Liu Y., Bass D. S., Mattingly R. L., and Gaubert F. (2019) Strategies for optimizing the scientific interactions with returned martian samples for the international scientific community: Science in containment. *Lunar and Planetary Science Conference L*, #2560.
98. Meyer M. A., Sefton-Nash E., Beaty D. W., and Carrier B. L. including on behalf of the MSR Science Planning Group (MSPG): Grady M. M., Haltigin T., Marty B., Siljeström S., Stansbery E. K., Tait K., Wadhwa M., Harrington A. D., Liu Y., Bass D. S., Mattingly R. L., and Gaubert F. (2019) MSR Science Planning Group Workshop #1 Report: The relationship of MSR science and containment. *Ninth International Conference on Mars*, #6385.
99. †Ray S., Wadhwa M., and †Rai V. K., (2019) Iron isotope compositions of large metal nodules from the Norton County aubrite. *Lunar and Planetary Science Conference L*, #1960.
100. †Ray S., Wadhwa M., †Rai V. K., and Garvie L. A. J. (2019) Iron isotope compositions of Si-bearing metal nodules from the Mount Egerton aubrite. *82nd Annual Meteoritical Society Meeting*, #6427.
101. Sefton-Nash E., Meyer M. A., Beaty D. W., Marty B., McCubbin F. M., and Carrier B. L. including on behalf of the MSR Science Planning Group (MSPG): Grady M. M., Haltigin T., Siljeström S., Stansbery E. K., Tait K., Wadhwa M., Harrington A. D., Liu Y., Bass D. S., Mattingly R. L., and Gaubert F. (2019) MSR Science Planning Group Workshop #2 Report: Containment and control. *Ninth International Conference on Mars*, #6387.
102. †Torrano Z. A., †Rai V. K., and Wadhwa M. (2019) Titanium isotope compositions of refractory inclusions: Implications for nebular mixing. *Lunar and Planetary Science Conference L*, #1501.
103. †Torrano Z. A., †Rai V. K., and Wadhwa M. (2019) Chromium isotope compositions of refractory inclusions: Implications for isotopic variability in the early Solar System. *82nd Annual Meteoritical Society Meeting*, #6104.

104. Wadhwa M., Stephant A., Sutton S., and Bell D. (2019) Spatially correlated analyses of hydrogen isotope compositions and iron valence in Dish Hill kaersutites: Implications for martian igneous samples. *82th Annual Meteoritical Society Meeting*, #6473.
105. Zhang B., Reger P. M., Gannoun A., Boyet M., Schrader D. L., Wadhwa M., Ferrière L., and Bouvier A. (2019) Pb-Pb chronometry of impact melts from lunar meteorite Oued Awlitis 001. *82nd Annual Meteoritical Society Meeting*, #6479.
106. †Dunham E., Liu M.-C., Simon S. B., Krot A. N., and Wadhwa M., (2018) Beryllium-boron systematics of ²⁶Al-poor CAIs: Implications for the relationship between FUN and non-FUN CAIs. *Lunar and Planetary Science Conference XXXIX*, #2402.
107. †Dunham E., Kita N. T., Defouilloy C., Simon S. B., and Wadhwa M., (2018) Investigation of oxygen isotope compositions combined with Be-B and Al-Mg systematics in CV3 CAIs. *Lunar and Planetary Science Conference XXXIX*, #2497.
108. †Dunlap D. R. and Wadhwa M. (2018) Chronology of planetesimal differentiation based on the timing of achondrite formation in the early Solar System. *Differentiation: Building the Internal Architecture of Planets*, #4003.
109. †Dunlap D. R., Koefoed P. K., Amelin Y., Wadhwa M., and Agee C. (2018) Pb-Pb age of the ungrouped achondrite Northwest Africa 11119: Timing of extraterrestrial silica-rich magmatism. *Lunar and Planetary Science Conference XXXIX*, #2302.
110. Garvie L. A. J., †Ray S., Wadhwa M., Wittmann A., and Domanik K. (2018) Scrutinizing six silicide-bearing samples of metal from the Norton County aubrite. *Lunar and Planetary Science Conference XXXIX*, #2104.
111. †Torrano Z. A., †Rai V. K., and Wadhwa M. (2018) Combined investigation of chromium, titanium and magnesium isotope compositions of refractory inclusions from a variety of carbonaceous chondrites. *Lunar and Planetary Science Conference XXXIX*, #2405.
112. †Ray S., Wadhwa M., and †Rai V. K., (2018) The origin of metal grains from enstatite achondrites based on iron isotope compositions. *Lunar and Planetary Science Conference XXXIX*, #2140.
113. Beaty D. W. and iMOST Team (including Wadhwa M.) (2018) Introduction to the 2018 iMOST study. *Second International Mars Sample Return Conference*, #6089.
114. Bishop J. L. and iMOST Team (including Wadhwa M.) (2018) Potential high priority subaerial environments for Mars sample return. *Second International Mars Sample Return Conference*, #6043.
115. Campbell K. A. and iMOST Team (including Wadhwa M.) (2018) Seeking signs of life on Mars: A strategy for selecting and analyzing returned samples from hydrothermal deposits. *Second International Mars Sample Return Conference*, #6046.
116. Des Marais D. J. and iMOST Team (including Wadhwa M.) (2018) Seeking the signs of life: Assessing the presence of biosignatures in the returned sample suite. *Second International Mars Sample Return Conference*, #6120.
117. Ehlmann B. L. and iMOST Team (including Wadhwa M.) (2018) High priority samples to characterize the habitability of groundwaters and search for rock-hosted life on Mars. *Second International Mars Sample Return Conference*, #6051.
118. Harrington A. D. and iMOST Team (including Wadhwa M.) (2018) The importance of returned martian samples for constraining potential hazards to future human exploration. *Second International Mars Sample Return Conference*, #6049.
119. Herd C. D. K. and iMOST Team (including Wadhwa M.) (2018) The importance of Mars samples in constraining the geological and geophysical processes on Mars and the nature of its crust, mantle and core. *Second International Mars Sample Return Conference*, #6055.
120. Humayun M. and iMOST Team (including Wadhwa M.) (2018) What could be learned about the geochronology of Mars from samples collected by M-2020. *Second International Mars Sample Return Conference*, #6041.
121. Kate I. L. ten and iMOST Team (including Wadhwa M.) (2018) The use of returned martian samples to evaluate the possibility of extant life on Mars. *Second International Mars Sample Return Conference*, #6053.

122. Kleinhenz J. and iMOST Team (including Wadhwa M.) The relevance of Mars samples to planning for potential future in-situ resource utilization. *Second International Mars Sample Return Conference*, #6042.
123. Mangold N. and iMOST Team (including Wadhwa M.) (2018) Seeking signs of life on Mars: The importance of sedimentary suites as part of Mars sample return. *Second International Mars Sample Return Conference*, #6045.
124. Sephton M. A. and iMOST Team (including Wadhwa M.) (2018) The search for life's organic carbon in returned samples from Mars. *Second International Mars Sample Return Conference*, #6052.
125. Swindle T. D. and iMOST Team (including Wadhwa M.) (2018) Constraining our understanding of the actions and effects of martian volatiles through the study of returned samples. *Second International Mars Sample Return Conference*, #6054.
126. Bouvier A., Zhang B., Shieh S., Lin Y., Schrader D., Wadhwa M., Korotev R., and Hartmann W. K. (2017) Geochronological Constraints on the Lunar Impact History [INVITED]. 3rd Beijing International Forum on Lunar and Deep-space Exploration, China September 19th-22nd 2017.
127. Choukroun M., Raymond C., and Wadhwa M. (2017) COmet Nucleus Dust and Organics Return (CONDOR): A New Frontiers 4 mission proposal. *European Planetary Science Congress*, Vol. 11, EPSC2017-413.
128. Cohen B. A., Arevalo R., Bottke W. F., Conrad P. G., Farley K. A., Fasset C. I., Jolliff B. L., Lawrence S. J., Mahaffy P. R., Malespin C., Swindle T. D., and Wadhwa M. (2017) Geochronology as a framework for planetary history through 2050. *Planetary Science Vision 2050 Workshop*, #8047.
129. †Dunham E., Wadhwa M., and Desch S. J. (2017) Beryllium-boron systematics of two distinctive CAIs from CV3 chondrites: The relatively pristine CAI B4 from NWA 6991 and the FUN CAI CMS-1 from Allende. *Lunar and Planetary Science Conference XXXXVIII*, #1507.
130. †Dunham E., Wadhwa M., and Liu M.-C. (2017) Range of initial ¹⁰Be/⁹Be ratios in the early Solar System: A re-assessment based on analyses of new CAIs and melilite composition glass standards. *80th Annual Meteoritical Society Meeting*, #6381.
131. †Dunlap D. R., †Rai V. K., and Wadhwa M. (2017) High precision ²⁶Al-²⁶Mg systematics of a new eucrite Northwest Africa 10919 and the brachinites Northwest Africa 4882 and Brachina. *Lunar and Planetary Science Conference XXXXVIII*, #2981.
132. †Dunlap D. R., Wadhwa M., and Agee C. (2017) ²⁶Al-²⁶Mg systematics of the ungrouped achondrite Northwest Africa 11119: Timing of extraterrestrial silica-rich magmatism. *80th Annual Meteoritical Society Meeting*, #6268.
133. Ferrière L., Meier M. M. M., Assis Fernandes V., Fritz J., Greshake A., Barrat J.-A., Böttger U., Bouvier A., Brandstätter F., Busemann H., Korotev R. L., Maden C., Magna T., Schmitt-Kopplin Ph., Schrader D. L., and Wadhwa M. (2017) The unique crowd-funded Oued Awlitis 001 Lunar Meteorite – A consortium overview. *Lunar and Planetary Science Conference XXXXVIII*, #1621.
134. Garvie L. A. J., Wittmann A., †Ray S., and Wadhwa M. (2017) Elemental and structural diversity in Norton County metal nodules. *80th Annual Meteoritical Society Meeting*, #6384.
135. †Hines R., Schrader D. L., and Wadhwa M. (2017) Current and future public engagement at ASU's Center for Meteorite Studies. *Lunar and Planetary Science Conference XXXXVIII*, #1597.
136. †Mane P., Wallace S., Zega T. J., Wadhwa M., and Wallace P. M. (2017) Electron back-scattered diffraction analysis of a refractory inclusion and its Wark-Lovering Rims. *Lunar and Planetary Science Conference XXXXVIII*, #2968.
137. †Ray S., †Rai V. K., †Hines R., †Romaniello S., and Wadhwa M. (2017) Iron isotope compositions of achondritic meteorites. *80th Annual Meteoritical Society Meeting*, #6400.
138. †Stephant A., †Mane P., Garvie L.A.J., Hervig R., and Wadhwa M. (2017) Effects of desert weathering on meteoritic hydrogen isotope systematics: Insights from Tissint. *Lunar and Planetary Science Conference XXXXVIII*, #1232.
139. †Torrano Z. A., †Rai V. K., and Wadhwa M. (2017) Magnesium, titanium, and chromium isotope compositions of refractory inclusions from several CV3 and CK3 chondrites: implications for nebular heterogeneity. *Lunar and Planetary Science Conference XXXXVIII*, #3045.

140. †Torrano Z. A., †Rai V. K., and Wadhwa M. (2017) Titanium isotope compositions of refractory inclusions from several CV3 and CK3 chondrites: Implications for nebular heterogeneity. *80th Annual Meteoritical Society Meeting*, #6318.
141. Wadhwa M. (2017) Meteoritic constraints on timescales of planetesimal accretion in the early Solar System. *Workshop on Accretion: Building New Worlds*, #2053.
142. Wadhwa M., Leshin L. A., Clark B., Jones S., Jurewicz A., McLennan S., Mischna M., Ruff S., Squyres S., and Westphal A. (2017) A low-cost, low-risk mission concept for the return of martian atmospheric dust: Relevance to human exploration of Mars. *Workshop on Dust in the Atmosphere of Mars and its Impact on Human Exploration*, #6028.
143. Brennecke G., Borg L., and Wadhwa M. (2016) The isotopic character of early Solar System events. *Goldschmidt Abstracts*, #301.
144. †Cartwright J. A., Hodges K. V., Wadhwa M., and Mittlefehldt D. W. (2016) Dating howardite melt clasts: Evidence for an extended Vestan bombardment? *Lunar and Planetary Science Conference XXXXVII*, #2865.
145. †Cartwright J. A., Amelin Y., Koefoed P., and Wadhwa M. (2016) U-Pb age of the ungrouped achondrite NWA 8486. *Meteoritics and Planetary Science* 51 (Suppl.), #6231.
146. †Dunham E., Wadhwa M., Hervig R., Simon S., and Grossman L. (2016) Further evidence of beryllium-10 heterogeneity in the early solar system inferred from Be-B systematics of refractory inclusions in a minimally altered CR2 chondrite. *Lunar and Planetary Science Conference XXXXVII*, #2723.
147. †Dunham E., Wadhwa M., Simon S., and Grossman L. (2016) Beryllium-boron systematics of refractory inclusions in CR2 and CV3 chondrites: Evidence for ¹⁰Be heterogeneity. *Meteoritics and Planetary Science* 51 (Suppl.), #6222.
148. †Dunlap D. R., Wadhwa M., and †Romaniello S. J. (2016) ⁵³Mn-⁵³Cr systematics of Brachina revisited in high precision. *Lunar and Planetary Science Conference XXXXVII*, #3055.
149. †Dunlap D. R., †Romaniello S. J., and Wadhwa M. (2016) ⁵³Mn-⁵³Cr systematics of the brachinite NWA 4882. *Meteoritics and Planetary Science* 51 (Suppl.), #6217.
150. †Dybal E. M. K., Wadhwa M., †Romaniello S. J., and †Hines R. (2016) Iron isotope compositions of achondritic meteorites from distinct parent bodies. *Meteoritics and Planetary Science* 51 (Suppl.), #6535.
151. Fraeman A. A., Ehlmann B. L., Northwood-Smith G. W. D., Liu Y., Wadhwa M., and Greenberger R. N. (2016) Exploring the mineralogical diversity of HED meteorites with microimaging VSWIR spectroscopy. *Lunar and Planetary Science Conference XXXXVII*, #2237.
152. Fraeman A. A., Ehlmann B. L., Northwood-Smith G. W. D., Liu Y., Wadhwa M., and Greenberger R. N. (2016) *Using VSWIR Microimaging Spectroscopy to Explore the Mineralogical Diversity of HED Meteorites*. 8th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing (WHISPERS 2016).
153. Jurewicz A. J. G., Rieck K. D., Wadhwa M., Burnett D. S., Hervig R., Williams P., Guan Y., Wiens R., and Huss G. R. (2016) New constraints on SW Mg isotopes from understanding Genesis DoS collectors, with implications. *Lunar and Planetary Science Conference XXXXVII*, #2350.
154. Kita N.T., Ushikubo T., Tenner T.J., †Romaniello S.J., and Wadhwa M. (2016) Instrumental biases for SIMS magnesium isotope analyses. *Goldschmidt Abstracts*, #1538.
155. †Mane P., Bose M., Defouilloy C., Kita N. T., MacPherson G. J., and Wadhwa M. (2016) Formation timescales of Wark-Lovering rims around calcium-aluminium-rich inclusions. *Lunar and Planetary Science Conference XXXXVII*, #2560.
156. †Mane P., †Torrano Z. A., †Romaniello S. J., Brennecke G. A., Shollenberger Q. R., Borg L., and Wadhwa M. (2016) Zirconium and chromium isotope systematics of non-Allende CAIs. *Lunar and Planetary Science Conference XXXXVII*, #2788.
157. †Mane P., Bose M., and Wadhwa M. (2016) Al-Mg systematics of Wark-Lovering rims around a refractory inclusion from the NWA 5028 CR2 chondrite. *Meteoritics and Planetary Science* 51 (Suppl.), #6238.

158. Monroe A. A., Shock E. L., and Wadhwa M. (2016) Meteoritics isoleucine epimerization in the chronology of asteroidal parent body fluids. *Lunar and Planetary Science Conference XXXXVII*, #2340.
159. †Stephant A., Hervig R. L., and Wadhwa M. (2016) Water in nominally anhydrous crustal minerals of Vesta. *Lunar and Planetary Science Conference XXXXVII*, #2436.
160. †Stephant A., Hervig R. L., Bose M., and Wadhwa M. (2016) D/H ratios and water contents in eucrite minerals: Implications for the source and abundance of water on Vesta. *Meteoritics and Planetary Science* 51 (Suppl.), #6212.
161. Wadhwa M. (2016) To See a World in a Grain of Sand: Insights into Solar System Formation and Evolution from Isotopic Analyses of Planetary Materials [INVITED; Shoemaker Lecture]. *Eos Trans. AGU* 97, Fall Meeting Suppl., P14A-01.
162. Wittmann A., Convey D., Sharp T., Wadhwa M., Buseck P., and Hodges K. (2016) The electron microprobe laboratory at Arizona State University. *Lunar and Planetary Science Conference XXXXVII*, #3018.
163. Amelin Y., †Williams C. D., and Wadhwa M. (2015) U-Th-Pb and Rb-Sr Systematics of Allende FUN CAI CMS-1. *Lunar and Planetary Science Conference XXXXVI*, #2355.
164. Balta J. B., McSween H. Y., †Tucker K., and Wadhwa M. (2015) Petrology and Geochemistry of New Antarctic Shergottites: LAR 12011, LAR 12095, and LAR 12240. *Lunar and Planetary Science Conference XXXXVI*, #2355.
165. Balta J. B., †Sanborn M. E., Udry A., Wadhwa M., and McSween H. Y. (2015) Igneous Petrology and Geochemistry of the Tissint Meteorite. *Lunar and Planetary Science Conference XXXXVI*, #1267.
166. Bouvier A., Wadhwa M., Korotev R. L., Hartmann W. K. (2015) Pb-Pb chronometry of lunar impact melt breccias and comparison with other radiochronometric records. Workshop on the first 1 Ga of impact records: Evidence from lunar samples and meteorites. Abstract #6016.
167. Brennecka G. A., Borg L. E., †Romaniello S. J., †Souders A. K., and Wadhwa M. (2015) The Search for Supernovae Fingerprints in the Early Solar System: No Signs of Live ¹²⁶Sn in Allende CAIs. *Lunar and Planetary Science Conference XXXXVI*, #1813.
168. Brennecka G. A., Borg L., †Romaniello S., †Souders A. K. and Wadhwa M. (2015) A renewed search for extant ¹²⁶Sn: Te isotopics of Allende CAIs obtained by HG-ICPMS [INVITED]. *Goldschmidt Abstracts*, #385.
169. †Cartwright J. A., Mittlefehldt D. W., Hodges K. V., Wadhwa M. (2015) Impact History on Vesta: Petrographic, Compositional and Future Chronological Studies of Melt Clasts in Howardites. *Lunar and Planetary Science Conference XXXXVI*, #1452.
170. †Dunham E., Wadhwa M., †Tucker K., Balta J. B., and McSween H. Y. (2015) Rare earth element geochemistry of the shergottites LAR 12095, 12240, and 12011. *Meteoritics and Planetary Science* 50 (Suppl.), #5289.
171. †Dunlap D. R., Ku Y. J., Garvie L. A. J., and Wadhwa M. (2015) Petrology of Ungrouped and Anomalous Achondrites SaU 493, NWA 4470, NWA 6962, and NWA 5297. *Lunar and Planetary Science Conference XXXXVI*, #2570.
172. †Dunlap D. R., Wadhwa M., †Romaniello S. J., †Souders A. K., and †Hines R. (2015) ²⁶Al-²⁶Mg systematics of ungrouped achondrites: Implications for timing of planetesimal differentiation. *Meteoritics and Planetary Science* 50 (Suppl.), #5317.
173. Green R. O., Ehlmann B. L., Fraeman A. A., Blaney D., Liu Y., Chabot N. L., Murchie S., Wadhwa M., Herd C. D. K., Velbel M. A., Mouroulis P., and Van Gorp B. (2015) Microimaging Spectroscopy for the Exploration of Small Bodies: First Laboratory Measurements of Carbonaceous Chondrite and HED Meteorites and a Proposed M6 Instrument for In Situ Measurement. *Lunar and Planetary Science Conference XXXXVI*, #2154.
174. Kita N. T., Tenner T. J., Ushikubo T., Bouvier A., Wadhwa M., Bullock E. S., and MacPherson G. J. (2015) Why do U-Pb ages of chondrules and CAIs have more spread than their ²⁶Al ages? *Meteoritics and Planetary Science* 50 (Suppl.), #5360.
175. Kööp L., Davis A. M., Heck P. R., Kita N. T., Krot A. N., †Mane P., Nagashima K., Nakashima D., Park C., Tenner T. J., Wadhwa M. (2015) Multiple Generations of Fractionated Hibonite-Rich

- CAIs Sampled the Solar Nebula at Different Degrees of Isotopic Heterogeneity. *Lunar and Planetary Science Conference XXXXVI*, #2750.
176. †Mane P., Bose M., Wadhwa M. (2015) Resolved time difference between calcium aluminum rich inclusions and their Wark-Lovering rims inferred from Al-Mg chronology of two inclusions from a CV3 carbonaceous chondrite. *Lunar and Planetary Science Conference XXXXVI*, #2898.
 177. †Mane P., Hervig R., Bose M., and Wadhwa M. (2015) Trace element abundances in Wark-Lovering rims in CAIs from a CV3 meteorite: Implications for their chronology. *Meteoritics and Planetary Science* 50 (Suppl.), #5327.
 178. †Mercer C. M., †Souders A. K., †Romaniello S. J., †Williams C. D., Brennecka G. A., Wadhwa M. (2015) Chromium and titanium isotope systematics of Allende CAIs. *Lunar and Planetary Science Conference XXXXVI*, #2920.
 179. †Tucker K., Hervig R., Wadhwa M. (2015) Hydrogen isotope systematics of nominally anhydrous phases in martian meteorites. *Lunar and Planetary Science Conference XXXXVI*, #2915.
 180. †Tucker K., Hervig R., Till C., and Wadhwa M. (2015) D/H in nominally anhydrous phases in martian meteorites: Implications for the martian mantle. *Meteoritics and Planetary Science* 50 (Suppl.), #5173.
 181. †Bouvier A., Wadhwa M., Korotev R. and Hartmann W (2014) Pb-Pb chronometry of lunar impact melt breccias. *Goldschmidt Abstracts*, #253.
 182. †Brennecka G. A., Borg L. E., and Wadhwa M. (2014) The gadolinium and dysprosium isotopic composition of a supernova injection inferred from Allende CAIs. *Lunar and Planetary Science Conference XXXXV*, #2280.
 183. Bullock E. S., †Bouvier A., Wadhwa M., MacPherson G. J., and Kita N. T. (2014) Mineralogy and petrology of an unusual large Type A CAI from NWA 6991. *Lunar and Planetary Science Conference XXXXV*, #1919.
 184. Ding S., Dasgupta R., Lee C-T., and Wadhwa M. (2014) New bulk sulfur measurements of martian meteorites – Implications for sulfur cycle and crust formation. *Lunar and Planetary Science Conference XXXXV*, #1717.
 185. †Dunlap D. R., Wadhwa M., †Romaniello S. R. (2014) ^{26}Al - ^{26}Mg systematics in the unusual ungrouped achondrite NWA 7325 and the eucrite Juvinas. *Lunar and Planetary Science Conference XXXXV*, #2186.
 186. Ehlmann B. L., Mustard J. F., Murchie S. L., Green R. O., Mouroulis P., Van Gorp B., Jeganathan M., Wu Y.-H., Glavich T., Bartos R., Nastal J., Strohhahn K., Blaney D. L., Boardman J., Farmer J., Fischer W., Grotzinger J., Herd C. D. K., Hoehler T., Hurowitz J., Schmidt M. E., Seelos F., Wadhwa M., Santo A., and Ferdosi J. (2014) Microimaging spectroscopy on Mars with CIMMBA, proposed for Mars-2020: The caching supporting infrared microimager for mineralogy and biosignature assessment. *Lunar and Planetary Science Conference XXXXV*, #2824.
 187. †Mane P., †Brennecka G. A., †Romaniello S. J., and Wadhwa M. (2014) Mg and U isotopic systematics in Allende CAIs: Implications for the origin of uranium isotope variation in refractory inclusions. *Lunar and Planetary Science Conference XXXXV*, #1685.
 188. †Mane P., †Brennecka G. A., †Romaniello S. J., †Williams C. D. and Wadhwa M. (2014) Zr isotope systematics of Allende CAIs. *Meteoritics and Planetary Science* 49 (Suppl.), #5403.
 189. †Mane P., Hervig R., Wadhwa M., and Garvie L. A. J. (2014) Hydrogen isotope composition of the Mars mantle inferred from the most recent martian meteorite fall, Tissint. *Workshop on Volatiles in the Martian Interior*, #1020.
 190. Mendybaev R. A., Richter F. M., †Williams C. D., Fedkin A. V., and Wadhwa M. (2014) Evolution of chemical and isotopic compositions of FUN CAIs: Experimental modeling. *Lunar and Planetary Science Conference XXXXV*, #2782.
 191. Morris M. A., Garvie L. A. J., Dock M., †Hines R., and Wadhwa M. (2014) The fruitful marriage of art and science. *Lunar and Planetary Science Conference XXXXV*, #2832.
 192. †Tucker K., Hervig R., and Wadhwa M. (2014) Hydrogen isotope systematics of maskelynites in the Los Angeles shergottite. *Meteoritics and Planetary Science* 49 (Suppl.), #5399.

193. †Tucker K., Hervig R., †Mane P., †Romaniello S., and Wadhwa M. (2014) Hydrogen isotope systematics of maskelynites in the shergottites Zagami, QUE 94201 and Tissint: Terrestrial contamination or deuteric alteration? *Lunar and Planetary Science Conference XXXXV*, #2190.
194. Wadhwa M. (2014) The solar system's violent beginning recorded in refractory inclusions [INVITED]. *Goldschmidt Abstracts*, #2601.
195. Wadhwa M., Kita N. T., Nakashima D., Bullock E. S., MacPherson G. J., †Bouvier A. (2014) High precision ^{26}Al - ^{26}Mg systematics for an almost pristine refractory inclusion: Implications for the absolute age of the solar system. *Lunar and Planetary Science Conference XXXXV*, #2698.
196. †Williams C. D., †Romaniello S., and Wadhwa M. (2014) Titanium isotopic compositions of CAIs from the Axtell and Leoville carbonaceous chondrites. *Goldschmidt Abstracts*, #2712.
197. †Williams C. D., Mendybaev R. A., Ushikubo T., Bullock E. S., †Janney P. E., Kita N. T., Richter F. M., MacPherson G. J., Wadhwa M. (2014) Mass dependent Mg and Si isotopic fractionation of Allende FUN CAI CMS-1: Implications for thermal and chemical evolution of the early solar system. *Lunar and Planetary Science Conference XXXXV*, #2146.
198. †Bouvier A., †Romaniello S. J., Wadhwa M., Korotev R., and Hartmann W. K. (2013) Pb-Pb dating of Apollo 67016 and MIL 090034 lunar impact breccias. *Meteoritics and Planetary Science* 48 (Suppl.), #5312.
199. †Brennecka G., Borg L. E., Symes J. K., and Wadhwa M. (2013) The age of Tissint: Sm-Nd and Rb-Sr isotope systematics of a martian meteorite fall. *Lunar and Planetary Science Conference XXXIV*, #1786.
200. †Brennecka G., Borg L. E., and Wadhwa M. (2013) Evidence of supernova injection into the solar nebula and decoupling of r-process nucleosynthesis. *Goldschmidt Abstracts*, DOI:10.1180/minmag.2013.077.5.2.
201. Ding S., Dasgupta R., Lee C-T., and Wadhwa M. (2013) New bulk sulfur measurements of martian meteorites – Implications for sulfur cycle on Mars. Abstract MR23B-2362 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.
202. Goldmann A., †Brennecka G., Noordmann J., Weyer S., and Wadhwa M. (2013) The $^{238}\text{U}/^{235}\text{U}$ of the Earth and Solar System. *Goldschmidt Abstracts*, DOI:10.1180/minmag.2013.077.5.7.
203. †Hines R., Garvie L. A. J., †Morris M. A., and Wadhwa M. (2013) A new and advanced curation facility for extraterrestrial materials at Arizona State University. *Meteoritics and Planetary Science* 48 (Suppl.), #5120.
204. †Mane P., Hervig R., Wadhwa M., Balta B., and McSween H. Y., Jr. (2013) Hydrogen isotopic composition of Tissint, the newest martian meteorite fall. *Lunar and Planetary Science Conference XXXIV*, #2220.
205. †Mane P., Wadhwa M., and Keller L. P. (2013) Trace element abundances in an unusual hibonite-perovskite refractory inclusion from Allende. *Meteoritics and Planetary Science* 48 (Suppl.), #5268.
206. Wadhwa M., †Bouvier A., and †Janney P. (2013) Al-Mg systematics in a CAI from the NWA 6991 CV3 chondrite. *Meteoritics and Planetary Science* 48 (Suppl.), #5253.
207. †Williams C. D., Hervig R. L., Wadhwa M., Bullock E. M., and MacPherson G. J. (2013) Rare earth element concentrations in Allende FUN CAI CMS-1. *Meteoritics and Planetary Science* 48 (Suppl.), #5108.
208. †Williams C. D., Ushikubo T., MacPherson G. J., Bullock E. S., Kita N. T., and Wadhwa M. (2013) Oxygen isotope systematics of Allende FUN CAI CMS-1. *Lunar and Planetary Science Conference XXXIV*, #2435.
209. Balta J. B., McSween H. Y., Jr., †Sanborn M. E., and Wadhwa M. (2012) Multiple lines of evidence for degassing of water from olivine-phyric shergottite LAR 06319. *Geological Society of America Abstracts with Programs*, Vol. 44, 166.
210. †Brennecka G. A., Borg L. E., and Wadhwa M. (2012) Combined stable isotope signatures in Allende CAIs: The nucleosynthetic conundrum. *Lunar and Planetary Science Conference XXXIII*, #2006.
211. †Brennecka G. A., Borg L. E., and Wadhwa M. (2012) The age of Tissint: Sm-Nd and Rb-Sr systematics. *Meteoritics and Planetary Science* 47 (Suppl.), #5157.

212. Goldman A., †Brennecka G. A., Noordmann J., Weyer S., Wadhwa M., and Zipfel J. (2012) Uranium isotope composition of the Earth and the Solar System. *European Mineralogical Conference*, Vol. 1, EMC2012-479.
213. Heber V. S., Jurewicz A. J. G., †Janney P., Wadhwa M., McKeegan K. D., and Burnett D. S. (2012) Magnesium isotopic composition of solar wind as test for isotopically fractionated solar wind. *Lunar and Planetary Science Conference XXXXIII*, #2921.
214. †Sanborn M. E., Carlson R. W., and Wadhwa M. (2012) Internal Lu-Hf isochrons for the quenched and plutonic angrites and their chronological implications. *Lunar and Planetary Science Conference XXXXIII*, #2039.
215. †Sanborn M. E., Wadhwa M., Balta B., and McSween H. Y., Jr. (2012) Trace element geochemistry of Tissint, the newest shergottite fall. *Meteoritics and Planetary Science* 47 (Suppl.), #5100.
216. †Spivak-Birndorf L. J., Wadhwa M., and †Janney P. E. (2012) ⁶⁰Fe-⁶⁰Ni systematics of Chainpur chondrules and the plutonic angrites Northwest Africa 4590 and 4801. *Lunar and Planetary Science Conference XXXXIII*, #2861.
217. †Spivak-Birndorf L. J., Wadhwa M., and †Janney P. E. (2012) The ⁶⁰Fe-⁶⁰Ni systematics of chondrules from unequilibrated ordinary chondrites. *Meteoritics and Planetary Science* 47 (Suppl.), #5365.
218. †Williams C. D., Wadhwa M., †Janney P. E., †Hines R. R., Bullock E. S., and MacPherson G. J. (2012) The measurement of titanium isotope compositions of Allende refractory inclusions by LA-MC-ICPMS. *Lunar and Planetary Science Conference XXXXIII*, #2523.
219. †Williams C. D., Wadhwa M., †Janney P. E., †Hines R. R., Bullock E. S., and MacPherson G. J. (2012) Ti, Si and Mg isotope systematics of FUN CAI CMS-1. *Meteoritics and Planetary Science* 47 (Suppl.), #5102.
220. Amelin Y., Yin Q.-Z., Krot A. N., †Bouvier A., Wadhwa M., Kleine T., and Nyquist L. E. (2011) Progress in the early Solar System chronology: A sketch of an ever-changing landscape. *Workshop on Formation of the First Solids in the Solar System*, #9055.
221. †Bouvier A., †Brennecka G. A., †Sanborn M. E., and Wadhwa M. (2011) U-Pb chronology of a newly recovered angrite. *Lunar and Planetary Science Conference XXXXII*, #2747.
222. †Bouvier A., †Brennecka G. A., †Sanborn M. E., and Wadhwa M. (2011) The formation of the angritic crust. *Goldschmidt Abstracts, Mineralogical Magazine* 75(3), 565.
223. †Bouvier A., †Brennecka G. A., and Wadhwa M. (2011) Absolute chronology of the first solids in the Solar System. *Workshop on Formation of the First Solids in the Solar System*, #9054.
224. †Bouvier A., Wadhwa M., Korotev R. L., and Hartmann W. K. (2011) U-Pb chronology of two lunar impact melt breccias. *Meteoritics and Planetary Science* 46 (Suppl.), #5185.
225. †Brennecka G. A. and Wadhwa M. (2011) Uranium isotope compositions of mineral separates from a single refractory inclusion. *Meteoritics and Planetary Science* 46 (Suppl.), #5030.
226. †Brennecka G. A. and Wadhwa M. (2011) ²³⁸U/²³⁵U ratios of angrites. *Goldschmidt Abstracts, Mineralogical Magazine* 75(3), 579.
227. †Brennecka G. A., Borg L. E., and Wadhwa M. (2011) Barium, neodymium and samarium isotope composition of Allende CAIs. *Lunar and Planetary Science Conference XXXXII*, #1302.
228. †Brennecka G. A., Borg L. E., and Wadhwa M. (2011) Barium, neodymium, and samarium isotopic composition of CAIs: Nucleosynthetic anomalies? *Workshop on Formation of the First Solids in the Solar System*, #9036.
229. Heber V. S., Jurewicz A. J. G., †Janney P., Wadhwa M., McKeegan K. D., and Burnett D. S. (2011) Mg isotopic composition of the solar wind by SIMS analysis of Genesis targets. *Meteoritics and Planetary Science* 46 (Suppl.), #5510.
230. †Morris M. A., †Janney P. E., †Hines R., and Wadhwa M. (2011) ²⁶Al-²⁶Mg systematics of selected chondrules from Allende and Semarkona. *Lunar and Planetary Science Conference XXXXII*, #2773.
231. †Sanborn M. E., Carlson R. W., and Wadhwa M. (2011) ^{147,146}Sm-^{143,142}Nd and ⁸⁷Rb-⁸⁷Sr systematics of the angrites Northwest Africa 4590, Northwest Africa 4801, and D'Orbigny. *Lunar and Planetary Science Conference XXXXII*, #2369.

232. †Sanborn M. E., Wadhwa M., Balta J. B., Mayne R., and McSween H. Y. Jr. (2011) Trace element geochemistry of the nakhlite Northwest Africa 5790. *Meteoritics and Planetary Science* 46 (Suppl.), #5122.
233. †Spivak-Birndorf L. J., Wadhwa M., and †Janney P. E. (2011) ^{60}Fe - ^{60}Ni chronology of the D'Orbigny angrite: Implications for the initial Solar System abundance of ^{60}Fe . *Lunar and Planetary Science Conference XXXXII*, #2281.
234. †Spivak-Birndorf L. J., Wadhwa M., and †Janney P. E. (2011) ^{60}Fe - ^{60}Ni Systematics in the Angrites. *Meteoritics and Planetary Science* 46 (Suppl.), #5442.
235. †Spivak-Birndorf L. J., Wadhwa M., and †Janney P. E. (2011) ^{60}Fe - ^{60}Ni Chronology of Angrites. *Workshop on Formation of the First Solids in the Solar System*, #9130.
236. Wadhwa M., †Bouvier A., and †Brennecka G. (2011) Concordant early Solar System timescales from Pb-Pb and extinct chronometers. *Meteoritics and Planetary Science* 46 (Suppl.), #5417.
237. Wadhwa M., Tang H., †Spivak-Birndorf L., Dauphas N., and †Janney P. (2011) Initial abundance of ^{60}Fe in the inner Solar System: Evidence from differentiated asteroids. *Workshop on Formation of the First Solids in the Solar System*, #9132.
238. †Williams C. D., Wadhwa M., and Bell D. R. (2011) Lithium isotope measurements of pyroxenes and evaluation of matrix effects in SIMS analyses: Application to martian meteorites. *Lunar and Planetary Science Conference XXXXII*, #2398.
239. †Williams C. D., Wadhwa M., †Janney P. E., †Hines R. R., Bullock E. S., and MacPherson G. J. (2011) Analysis of titanium isotope ratios in refractory inclusions by LA-MC-ICPMS. *Meteoritics and Planetary Science* 46 (Suppl.), #5434.
240. †Bouvier A. and Wadhwa M. (2010) Pb-Pb isotope dating of the unique basaltic achondrite NWA 2976. *Lunar and Planetary Science Conference XXXXI*, #1489.
241. †Bouvier A., †Brennecka G., and Wadhwa M. (2010) Refining the U-Pb Chronology of the Early Solar System [INVITED]. *Goldschmidt Abstracts, Geochimica Cosmochimica Acta* 74, A111.
242. †Bouvier A., Wadhwa M., Bullock E., and MacPherson G. (2010) Pb-Pb dating of a CAI from the reduced CV3 chondrite Vigarano. *Meteoritics and Planetary Science* 45 (Suppl.), #5400.
243. †Brennecka G., Borg L., and Wadhwa M. (2010) Barium isotope compositions of Allende refractory inclusions: r-process excesses and evidence for ^{138}La decay. *Meteoritics and Planetary Science* 45 (Suppl.), #5318.
244. †Brennecka G. A., Wadhwa M., and Anbar A. D. (2010) Uranium isotope variations in meteorites: Implications for high-precision chronology and short-lived radioactivities in the early Solar System. *AbGradCon* 2010.
245. †Brennecka G. A., Wadhwa M., †Janney P. E., and Anbar A. D. (2010) Towards reconciling early Solar System chronometers: The $^{238}\text{U}/^{235}\text{U}$ ratios of chondrites and D'Orbigny pyroxenes. *Lunar and Planetary Science Conference XXXXI*, #2117.
246. †Hines R., Taylor W., Minitti M. E., and Wadhwa M. (2010) Bringing outer space into the classroom: Loanable space science modules from the Center for Meteorite Studies and Mars Education Program at Arizona State University. *Lunar and Planetary Science Conference XXXXI*, #2617.
247. Rieck K., Jurewicz A. J. G., Wadhwa M., Burnett D., Hergig R., and Wiens R. (2010) SIMS measurements of Mg isotopes in solar wind. *Lunar and Planetary Science Conference XXXXI*, #2391.
248. †Sanborn M. E. and Wadhwa M. (2010) Rare earth element geochemistry of quenched Angrites Northwest Africa 1296 and Northwest Africa 1670. *Lunar and Planetary Science Conference XXXXI*, #1490.
249. †Sanborn M. and Wadhwa M. (2010) Trace element geochemistry of the basaltic shergottite Northwest Africa 2975. *Meteoritics and Planetary Science* 45 (Suppl.), #5294.
250. †Spivak-Birndorf L. J., †Bouvier A., Wadhwa M., Bland P. A., and Spurný P. (2010) Trace element geochemistry and chronology of the Bunburra Rockhole basaltic achondrite. *Lunar and Planetary Science Conference XXXXI*, #2274.
251. †Spivak-Birndorf L., Wadhwa M. and †Janney P. (2010) ^{60}Fe - ^{60}Ni isotope systematics of bulk ureilites. *Meteoritics and Planetary Science* 45 (Suppl.), #5393.

252. †Williams C., Wadhwa M., and Bell D. R. (2010) Fluorine abundances and zonation patterns in martian pyroxenes. *Meteoritics and Planetary Science* 45 (Suppl.), #5390.
253. †Williams C., Wadhwa M., Bell D., and Hervig R. (2010) Light lithophile element microdistributions in pyroxenes of the martian meteorites. *Lunar and Planetary Science Conference XXXI*, #2641.
254. †Bouvier A. and Wadhwa M. (2009) Synchronizing the absolute and relative clocks: Pb-Pb and Al-Mg systematics in CAIs from the Allende and NWA 2364 CV3 chondrites. *Lunar and Planetary Science Conference XXXX*, #2184.
255. †Bouvier A. and Wadhwa M. (2009) ^{26}Al - ^{26}Mg internal isochrons for two CAIs from the Leoville CV3 chondrite. *Meteoritics and Planetary Science* 44 (Suppl.), #5408.
256. †Bouvier A., Wadhwa M., Simon S. B., and Grossman L. (2009) Magnesium isotope compositions of chondrules from the Murchison and Murray carbonaceous chondrites. *Lunar and Planetary Science Conference XXXX*, #2193.
257. †Brennecka G. A., Weyer S., Wadhwa M., †Janney P. E., and Anbar A. (2009) $^{238}\text{U}/^{235}\text{U}$ variations in CAIs: Implications for Pb-Pb dating. *Lunar and Planetary Science Conference XXXX*, #1061.
258. †Brennecka G. A., Weyer S., Wadhwa M., †Janney P. E., Anbar A. D., and Zipfel J. (2009) $^{238}\text{U}/^{235}\text{U}$ variations in meteoritic materials: Evidence for ^{247}Cm in the early Solar System and implications for Pb-Pb dating. *Meteoritics and Planetary Science* 44 (Suppl.), #5303.
259. †Hines R., †Stopar J., Taylor W., Minitti M. E. and Wadhwa M. (2009) Enhancing and expanding educational outreach programs at the Center for Meteorite Studies, Arizona State University. *Lunar and Planetary Science Conference XXXX*, #1875.
260. †Janney P. E., Richter F. M., Mendybaev R., and Wadhwa M. (2009) Characterization of matrix effects during in situ Mg and Si isotope measurements by LA-MC-ICPMS. *Eos Trans. AGU* 90, Fall Meeting Suppl., V34B-04.
261. Jurewicz A. J. G., Hervig R., Burnett D. S., Wiens R., Wadhwa M., and Rieck K. (2009) Fractionation of Mg isotopes between the Sun's photosphere and the solar wind. *Meteoritics and Planetary Science* 44 (Suppl.), #5422.
262. †Sanborn M. and Wadhwa M. (2009) Rare earth element geochemistry of angrites Northwest Africa 4590 and Northwest Africa 4801. *Lunar and Planetary Science Conference XXXX*, #1345.
263. †Sanborn M. E., Carlson R., and Wadhwa M. (2009) ^{87}Rb - ^{87}Sr and $^{147,146}\text{Sm}$ - $^{143,142}\text{Nd}$ systematics in the angrite Northwest Africa 2999. *Meteoritics and Planetary Science* 44 (Suppl.), #5399.
264. †Spivak-Birndorf L. and Wadhwa M. (2009) ^{26}Al - ^{26}Mg systematics in Brachina and the unique achondrite GRA 06129. *Lunar and Planetary Science Conference XXXX*, #2131.
265. †Spivak-Birndorf L. and Wadhwa M. (2009) ^{26}Al - ^{26}Mg chronology of the unique basaltic achondrite Northwest Africa 2976. *Meteoritics and Planetary Science* 44 (Suppl.), #5390.
266. Wadhwa M. and †Bouvier A. (2009) The age of the Solar System revisited. *Eos Trans. AGU* 90, Fall Meeting Suppl., P12B-03.
267. Wadhwa M., †Janney P. E., and Krot A. N. (2009) Evidence of disturbance in the ^{26}Al - ^{26}Mg systematics of the Efremovka E60 CAI: Implications for the high-resolution chronology of the early Solar System. *Lunar and Planetary Science Conference XXXX*, #2495.
268. Wadhwa M., †Janney P. E., and Krot A. N. (2009) Al-Mg isotope systematics in the Efremovka E60 CAI: Evidence of re-equilibration. *Meteoritics and Planetary Science* 44 (Suppl.), #5431.
269. Weyer S., †Brennecka G., Zipfel J., Wadhwa M., and Anbar A. D. (2009) U isotope variations in CAIs: Implications for the age of the Solar System. *Goldschmidt Abstracts, Geochimica Cosmochimica Acta* 73, A1433.
270. Weyer S., †Brennecka G., Montoya Pino C., Noordman J., Shauble E. A., Wadhwa M., and Anbar A. D. (2009) Natural Variation of $^{238}\text{U}/^{235}\text{U}$ in Geo- and Cosmochemistry. *Eos Trans. AGU* 90, Fall Meeting Suppl., V54C-05.
271. Amelin Y., †Janney P., Chakrabarti R., Wadhwa M., and Jacobsen S. B. (2008) Isotopic analysis of small Pb samples using MC-ICPMS: The limits of precision and comparison to TIMS. *Eos Trans. AGU* 89, Fall Meeting Suppl., V13A-2088.
272. †Bouvier A., Wadhwa M., and †Janney P. (2008) Pb-Pb systematics in an Allende chondrule. *Goldschmidt Conference Abstracts, Geochimica Cosmochimica Acta* 72, A106.

273. †Bouvier A., Wadhwa M., and †Janney P. (2008) ^{26}Al - ^{26}Mg and ^{207}Pb - ^{208}Pb systematics in an Allende inclusion. *Meteoritics and Planetary Science* 43 (Suppl.), #5299.
274. Dauphas N., †Cook D., Sacarabany A., Fröhlich C., Davis A. M., Wadhwa M., Pourmand A., Rauscher T., and Gallino R. (2008) Iron-60 injection in the protosolar nebula: How early and how well mixed? *Lunar and Planetary Science Conference XXXIX*, #1170.
275. Dauphas N., †Cook D., Sacarabany A., Fröhlich C., Davis A. M., Wadhwa M., Pourmand A., Rauscher T., and Gallino R. (2008) Iron-60 in the cosmic blender [MEDAL]. *Geochimica et Cosmochimica Acta*, 72(12) Supplement 200.
276. †Hines R., Taylor W., and Wadhwa M. (2008) Space Rocks! Increasing the impact of educational initiatives at the Center for Meteorite Studies, Arizona State University. *Lunar and Planetary Science Conference XXXIX*, #2513.
277. †Sanborn M. E., Wadhwa M., Hervig R., and Irving A. J. (2008) Rare earth element geochemistry of angrite Northwest Africa 2999. *Lunar and Planetary Science Conference XXXIX*, #1395.
278. †Sanborn M. E., Wadhwa M., Usui T., and McSween H. Y., Jr. (2008) REE distributions in shergottites RBT 04261 and 04262. *Geochimica et Cosmochimica Acta*, 72(12) Supplement 821.
279. †Spivak-Birndorf L. J., Wadhwa M., and Williams L. B. (2008) The boron isotopic composition of Nakhla iddingsite. *Lunar and Planetary Science Conference XXXIX*, #1904.
280. †Spivak-Birndorf L. J., Wadhwa M., and Williams L. B. (2008) Boron isotopic composition of igneous minerals and secondary alteration products in Nakhla. *Workshop on Ground Truth from Mars: Science Payoff from a Sample Return Mission*, LPI Contribution No. 1401, 95-96.
281. †Spivak-Birndorf L. J., Wadhwa M. and Williams L. B. (2008) Boron isotopes in nakhlites: Implications for crustal fluids on Mars [INVITED]. *Geochimica et Cosmochimica Acta*, 72(12) Supplement 889.
282. Usui T., †Sanborn M., Wadhwa M. and McSween H. Y., Jr. (2008) Petrogenesis of geochemically enriched ilmenitic shergottites RBT 04261 and RBT 04261. *Meteoritics and Planetary Science* 43 (Suppl.), #5052.
283. †Cook D. L., Clayton R. N., Wadhwa M., †Janney P. E., and Davis A. M. (2007) Nickel isotope systematics in troilite from magmatic and non-magmatic iron meteorites. *Lunar and Planetary Science Conference XXXVIII*, #2287.
284. MacPherson G. J., Bullock E. S., †Janney P., Davis A. M., Wadhwa M., and Krot A. N. (2007) High-precision Al-Mg isotope studies of condensate CAIs. *Lunar and Planetary Science Conference XXXVIII*, #1378.
285. †Qin L., Dauphas N., Wadhwa M., Markowski A., Gallino R., and †Janney P. E. (2007) Tungsten nuclear anomalies in iron meteorites and implications for Hf-W chronology. *Lunar and Planetary Science Conference XXXVIII*, #1771.
286. †Qin L., Dauphas N., Wadhwa M., Masarik J., and †Janney P. (2007) Combining Hf-W ages, cooling rates and thermal models to estimate the accretion time of iron meteorite parent bodies. *Eos Trans. AGU* 88 (52), Fall Meeting Suppl., V32B-07.
287. †Teng F.-Z., Wadhwa M., †Janney P. E., Grossman L., Simon S., and Dauphas N. (2007) Magnesium isotopic systematics of chondrules and CAIs from Allende, Murchison, Murray and Bjurböle. *Lunar and Planetary Science Conference XXXVIII*, #1837.
288. †Teng F.-Z., Wadhwa M., Helz R. T., and Richter F. M. (2007) The absence of magnesium isotope fractionation during basalt differentiation. *Geochimica et Cosmochimica Acta*, 71(15) Supplement 1014.
289. Wadhwa M. (2007) Advances in isotope cosmochemistry and high-resolution chronology using extinct radionuclides [INVITED]. *Eos Trans. AGU* 88 (52), Fall Meeting Suppl., V32B-08.
290. Amelin Y., Wadhwa M., and Lugmair G. W. (2006) Pb-isotopic dating of meteorites using the ^{202}Pb - ^{205}Pb double-spike: Comparison with other high-resolution chronometers. *Lunar and Planetary Science Conference XXXVII*, #1970.
291. Borg L. and Wadhwa M. (2006) $\epsilon^{142}\text{Nd}$ – $\epsilon^{143}\text{Nd}$ isotopic evidence for protracted lunar differentiation. *Lunar and Planetary Science Conference XXXVII*, #1154.

292. †Cook D. L., Wadhwa M., Davis A. M., and Clayton R. N. (2006) Heterogeneity of the Hoba IVB iron meteorite: Implications for its use as an analytical standard. *Lunar and Planetary Science Conference XXXVII*, #2116.
293. †Cook D. L., Wadhwa M., Clayton R. N., †Janney P. E., Dauphas N., and Davis A. M. (2006) Mass dependent fractionation of nickel isotopes in IIIAB irons. *Meteoritics and Planetary Science* 41 (Suppl.), #5167.
294. Dauphas N., Cates N. L., Mojzsis S. J., van Zuilen M., Wadhwa M., †Janney P. E., Busigny V., and Davis A. M. (2006) The iron isotopic composition of 3.7-3.8 Ga chemical sediments: Comparison between Isua (Greenland) and Nuvvuagittuq (Northern Québec). *Lunar and Planetary Science Conference XXXVII*, #1053.
295. †Qin L., Dauphas N., Wadhwa M., †Janney P. E., Davis A. M., and Mazarik J. (2006) Evidence of correlated cosmogenic effects in iron meteorites: Implications for the timing of metal-silicate differentiation in asteroids. *Lunar and Planetary Science Conference XXXVII*, #1771.
296. †Qin L., Dauphas N., Wadhwa M., and †Janney P. E. (2006) High precision tungsten isotope measurements of iron meteorites. *Meteoritics and Planetary Science* 41 (Suppl.), #5267.
297. Richter F. M., †Janney P. E., Mendybaev R., Davis A. M., and Wadhwa M. (2006) Recondensation reconsidered: Effects in evaporation experiments and in natural settings. *Lunar and Planetary Science Conference XXXVII*, #2353.
298. Wadhwa M. and Borg L. (2006) Trace element and $\epsilon^{142}\text{Nd}$ systematics in the nakhlite MIL 03346 and the orthopyroxenite ALH 84001: Implications for the martian mantle. *Lunar and Planetary Science Conference XXXVII*, #2045.
299. †Cook D. L., Wadhwa M., Clayton R. N., †Janney P. E., Dauphas N., and Davis A. M. (2005) Nickel isotopic composition of Fe-Ni metal from iron meteorites and the Brenham pallasite. *Lunar and Planetary Science Conference XXXVI*, #1779.
300. †Cook D. L., Wadhwa M., Clayton R. N., †Janney P. E., Dauphas N., and Davis A. M. (2005) Nickel isotopic composition of meteoritic metal: Implications for the initial $^{60}\text{Fe}/^{56}\text{Fe}$ ratio in the early solar system. *Meteoritics and Planetary Science* 40 (Suppl.), A33.
301. Davis A. M., Richter F. M., Mendybaev R. A., †Janney P. E., Wadhwa M., and McKeegan K. D. (2005) Isotopic mass fractionation laws and initial solar system $^{26}\text{Al}/^{27}\text{Al}$ ratio. *Lunar and Planetary Science Conference XXXVI*, #2334.
302. Dauphas N., †Foley C. N., Wadhwa M., Davis A. M., †Janney P. E., †Qin L., Göpel C., and Birck J.-L. (2005) Protracted core differentiation in asteroids from ^{182}Hf - ^{182}W systematics in the Eagle Station pallasite. *Lunar and Planetary Science Conference XXXVI*, #1110.
303. †Janney P. E., Richter F. M., Davis A. M., Mendybaev R. A., and Wadhwa M. (2005) Silicon isotope ratio variations in CAI evaporation residues measured by laser ablation multicollector ICPMS. *Lunar and Planetary Science Conference XXXVI*, #2123.
304. †Qin L., Dauphas N., †Janney P. E., Wadhwa M., and Davis A. M. (2005) High precision W isotope measurements (180, 182, 183, 184, and 186) of iron meteorites. *Meteoritics and Planetary Science* 40 (Suppl.), A124.
305. Richter F. M., †Janney P. E., Mendybaev R. A., Davis A. M., and Wadhwa M. (2005) On the temperature dependence of the kinetic isotope fractionation of Type B CAI-like melts during evaporation. *Lunar and Planetary Science Conference XXXVI*, #2124.
306. †Spivak-Birndorf L., Wadhwa M., †Janney P. E., and †Foley C. N. (2005) Al-Mg isotopic systematics in the angrite Sahara 99555 and the primitive achondrite Brachina. *Lunar and Planetary Science Conference XXXVI*, #2201.
307. †Spivak-Birndorf L., Wadhwa M., and †Janney P. E. (2005) ^{26}Al - ^{26}Mg chronology of the D'Orbigny and Sahara 99555 angrites. *Meteoritics and Planetary Science* 40 (Suppl.), A145.
308. Wadhwa M. (2005) From dust to planets: Timescales of accretion and differentiation in the early solar system [INVITED]. *Geochimica et Cosmochimica Acta*, 69(10) Supplement 385.
309. Wadhwa M., Amelin Y., Bogdanovski O., Lugmair G. W., and †Janney P. E. (2005) High precision relative and absolute ages for Asuka 881394, a unique and ancient basalt. *Lunar and Planetary Science Conference XXXVI*, #2126.

310. Corrigan C., Wadhwa M., and Harvey R. P. (2004) Rare earth element measurements of multi-generational (?) carbonate in martian meteorite Allan Hills 84001. *Lunar and Planetary Science Conference XXXV*, #1611.
311. †Dauphas N., †Foley N., Wadhwa M., Davis A. M., Gopel C., Birck J.-L., †Janney P. E., and Gallino R. (2004) Testing the homogeneity of the solar system for iron (54, 56, 57, and 58) and tungsten (182, 183, 184, and 186) isotopic abundances. *Lunar and Planetary Science Conference XXXV*, #1498.
312. †Dauphas N., Davis A. M., Mendybaev R., Richter F. M., Wadhwa M., †Janney P. E., and †Foley N. (2004) Iron isotopic fractionation during vacuum evaporation of molten wustite and solar compositions. *Lunar and Planetary Science Conference XXXV*, #1585.
313. †Foley C. N., Wadhwa M., Borg L. E., and †Janney P. E. (2004) The differentiation history of mantle reservoirs on Mars from W and Nd isotopic compositions of SNC meteorites. *Lunar and Planetary Science Conference XXXV*, #1879.
314. Foley C. N., Wadhwa M., Borg L. E., and Janney P. E. (2004) Implications of isotopic and redox heterogeneities in silicate reservoirs on Mars. *Workshop on Oxygen in the Terrestrial Planets*, #3006.
315. †Janney P. E., Mendybaev R., †Dauphas N., Davis A. M., Richter F. M., and Wadhwa M. (2004) “Nonideal” isotopic fractionation behavior of magnesium in evaporation residues. *Lunar and Planetary Science Conference XXXV*, #2092.
316. Wadhwa M., †Foley C. N., and †Janney P. E. (2004) ^{26}Al - ^{26}Mg systematics in eucrites: Implications for ^{26}Al as a chronometer and heat source for planetesimal differentiation. *European Geosciences Union 1st General Assembly*, #EGU04-A-06981.
317. Wadhwa M., †Foley C. N., †Janney P. E., and †Spivak-Birndorf L. (2004) Mg isotopic Systematics in eucrites: Implications for the ^{26}Al - ^{26}Mg chronometer. *Lunar and Planetary Science Conference XXXV*, #1843.
318. †Dauphas N., Rouxel O., Davis A. M., Lewis R. S., Wadhwa M., Marty B., Reisberg L., †Janney P., and Zimmermann C. (2003) Iron and selenium isotopic homogeneity in the protosolar nebula? *Lunar and Planetary Science Conference XXXIV*, #1807.
319. †Foley C. N., Wadhwa M., and †Janney P. E. (2003) Tungsten isotopic composition of the SNC meteorite Los Angeles: further implications for early differentiation history of Mars. *Lunar and Planetary Science Conference XXXIV*, #2117.
320. †Foley C. N., Wadhwa M., and †Janney P. E. (2003) Tungsten isotopic compositions of the SNC meteorites: further implications for early differentiation history of Mars. *Sixth International Conference on Mars*, #3163.
321. †Janney P. E., Davis A. M., Wadhwa M., Mendybaev R. A., and Richter F. M. (2003) High precision magnesium isotopic measurement of CAI evaporation residues. *Lunar and Planetary Science Conference XXXIV*, #1940.
322. Leshin L. A., Clark B., Forney L., Jones S., Jurewicz A., Greeley R., Richardson M., Sharp T., Thiemens M., Wadhwa M., Wiens R., Yen A., and Zolensky M. (2003) Scientific return of a Mars dust sample capture and earth return with SCIM. *Lunar and Planetary Science Conference XXXIV*, #1288.
323. McCoy T. J., Wilson L., Benedix G. K., Ketcham R. A., Wadhwa M., Davis A., and Carlson W. D. (2003) Vesicular eucrites: Where and how did they form and why are they so rare? *Lunar and Planetary Science Conference XXXIV*, #1187.
324. Simon S. B., Wacker J. F., Clayton R. N., Mayeda T. K., Schwade J. R., Sipiera P. P., Grossman L., and Wadhwa M. (2003) The fall, recovery and classification of the Park Forest meteorite. *Meteoritics and Planetary Science* 38 (Suppl.), A139.
325. Wadhwa M. and Crozaz G. (2003) Trace element geochemistry of new nakhlites from the Antarctic and the Saharan desert: Further constraints on nakhlite petrogenesis on Mars. *Lunar and Planetary Science Conference XXXIV*, #2075.
326. Wadhwa M., †Foley C. N., and †Janney P. E. (2003) High precision Mg isotopic analyses of achondrites: Is the ^{26}Al - ^{26}Mg chronometer concordant with other high resolution chronometers? *Geochimica et Cosmochimica Acta*, 67(18) Supplement 517.

327. Wadhwa M., †Foley C. N., †Janney P. E. and Beecher N. A. (2003) Magnesium isotopic composition of the Juvinas eucrite: implications for concordance of the Al-Mg and Mn-Cr chronometers and timing of basaltic volcanism on asteroids. *Lunar and Planetary Science Conference XXXIV*, #2055.
328. Crozaz G., Floss C., and Wadhwa M. (2002) Chemical alteration of hot and cold desert meteorites. *Geochimica et Cosmochimica Acta*, 66 Supplement 1 158.
329. Wadhwa M. (2002) What martian meteorites can and cannot tell us about Mars: The context for sample return [INVITED]. *Eos Trans. AGU* 83, Spring Meeting Suppl., P51A-07.
330. Wadhwa M. and Crozaz G. (2002) Trace element abundances in minerals of two new and distinct basaltic shergottites, NWA 856 and NWA 1068. *Meteoritics and Planetary Science* 37 (Suppl.), A145.
331. Wadhwa M. and Grove T. L. (2002) Archean cratons on Mars?: Evidence from trace elements, isotopes and oxidation states of SNC magmas. *Geochimica et Cosmochimica Acta*, 66 Supplement 1 816.
332. Wadhwa M., Sutton S. R., Flynn G. J., and Newville M. (2002) Microdistributions of Rb and Sr in ALH84001 carbonates: Chronological implications for secondary alteration on Mars. *Lunar and Planetary Science Conference XXXIII*, #1362.
333. Crozaz G., Wadhwa M., and Barrat J. A. (2001) Trace elements in NWA 480: Still more diversity in the basaltic shergottite group. *Meteoritics and Planetary Science* 36 (Suppl.), A45.
334. Davis A. M., Dufek J. D., and Wadhwa M. (2001) Euhedral phosphate grains in vugs and vesicles in ordinary chondrites, lunar samples and the Ibitira eucrite: Implications for trace element transport processes. *Meteoritics and Planetary Science* 36 (Suppl.), A47.
335. Gillet Ph., Barrat J. A., Crozaz G., Deloule E., Jambon A., Neuville D., Sautter V., and Wadhwa M. (2001) Aqueous alteration in the NWA 817 martian meteorite. *Meteoritics and Planetary Science* 36 (Suppl.), A66.
336. Wadhwa M. (2001) Geochemical effects of alteration on Mars: Insights from trace element distributions in Martian meteorites [INVITED]. *Eos Trans. AGU*, 82 (47), Fall Meeting Suppl., P51A-05.
337. Wadhwa M., Barrat J. A., and Crozaz G. (2001) Petrogenesis of a new nakhlite from rare earth and other trace element microdistributions. *Meteoritics and Planetary Science* 36 (Suppl.), A217-A218.
338. Wadhwa M., Crozaz G., Lentz R. C. F., and McSween H. Y., Jr. (2001) Trace element microdistributions in Los Angeles: A new basaltic shergottite similar to, yet distinct from, the others. *Lunar and Planetary Science Conference XXXII*, #1106.
339. Wadhwa M. (2000) Quantitative constraints on the redox states of Martian magmas from Eu anomalies in pyroxenes of basaltic shergottites. *Lunar and Planetary Science Conference XXXI*, #1966.
340. Wadhwa M., Lentz R. C. F., McSween H. Y., Jr., and Crozaz G. (2000) Dar al Gani 476 and Dar al Gani 489, twin shergottites from Mars. *Lunar and Planetary Science Conference XXXI*, #1413.
341. Crozaz G. and Wadhwa M. (1999) Chemical alteration of hot desert meteorites: The case of shergottite Dar al Gani 476. *Workshop on extraterrestrial materials from hot and cold deserts*, LPI Contribution No. 997, 25-27.
342. Heim N., Wadhwa M., and Davis A. M. (1999) Rare earth element abundances in vapor deposited minerals in Ibitira vesicles. *Lunar and Planetary Science Conference XXX*, #1908.
343. Wadhwa M., Crozaz G., Lentz R., and McSween H. Y., Jr. (1999) Trace element distributions in the new Saharan martian meteorite Dar al Gani 476: Another bridge between lherzolitic and basaltic shergottites. *Meteoritics and Planetary Science* 34 (Suppl.), A117-A118.
344. Wadhwa M., Shukolyukov A., Davis A. M., and Lugmair G. W. (1999) Origin of silicate clasts in mesosiderites: Trace element distributions and Mn-Cr systematics tell the tale. *Lunar and Planetary Science Conference XXX*, #1707.
345. Wadhwa M. and Davis A. M. (1998) Vapor deposited mineral assemblages in vesicles of the eucrite Ibitira. *Lunar and Planetary Science Conference XXIX*, #1931.

346. Wadhwa M., Shukolyukov A., and Lugmair G. W. (1998) ^{53}Mn - ^{53}Cr systematics in Brachina: A record of one of the earliest phases of igneous activity on an asteroid. *Lunar and Planetary Science Conference XXIX*, #1480.
347. Wadhwa M., Zipfel J., and Davis A. M. (1998) Constraints on the formation history of brachinites from rare earth element distributions. *Meteoritics and Planetary Science* 33 (Suppl.), A161.
348. Wadhwa M., Weisberg M. K., Crozaz G., and Prinz M. (1998) Did fayalites in the Kaba CV3 chondrite form in an asteroidal or a nebula environment?: Constraints from Mn-Cr systematics. *Lunar and Planetary Science Conference XXIX*, #1484.
349. Wadhwa M. and Davis A. M. (1997) Effects of varying degrees of metamorphic equilibration on trace element distributions in three basaltic clasts from Vaca Muerta. *Lunar and Planetary Science Conference XXVIII*, 1483-1484.
350. Wadhwa M. and Lugmair G. W. (1997) The controversy of young vs. old age of formation of carbonates in ALH84001. *Conference on Early Mars: Geologic and hydrologic evolution, physical and chemical environments, and the implications for life*, LPI Contribution No. 916, 79-80.
351. Wadhwa M., Davis A. M., and Mittlefehldt D. W. (1997) Trace element distributions as indicators of magmatic vs. impact origin: A case study of three Vaca Muerta clasts. *Meteoritics and Planetary Science* 32 (Suppl.), A134.
352. Wadhwa M., McKay G. A., and Crozaz G. (1997) Trace element distributions in Yamato 793605, a chip off the "Martian Iherzolite" block. *National Institute of Polar Research 22nd Symposium on Antarctic Meteorites*, 197-199.
353. Wadhwa M., Shukolyukov A., and Lugmair G. W. (1997) The relationship between basaltic clasts in mesosiderites and the HED meteorites: Clues from Mn-Cr systematics of two Vaca Muerta clasts. *Lunar and Planetary Science Conference XXVIII*, 1487-1488.
354. Wadhwa M., Zinner E. K., and Crozaz G. (1997) Mn-Cr systematics in sulfides of unequilibrated enstatite chondrites: Parent body vs. nebular processing and implications for accretion times. *Workshop on parent body and nebular modification of chondritic materials*, LPI Technical Report No. 97-02, Part I, 62-63.
355. Wadhwa M., Crozaz G., McSween H. Y., Jr., and Taylor L. A. (1997) Martian basalt QUE94201 and lunar basalt 15555: A tale of two pyroxenes. *Lunar and Planetary Science Conference XXVIII*, 1485-1486.
356. Wadhwa M. and Crozaz G. (1996) QUE94201: A new and different shergottite. *Lunar and Planetary Science Conference XXVII*, 1365-1366.
357. Wadhwa M. and Lugmair G. W. (1996) The formation age of carbonates in ALH84001. *Meteoritics and Planet. Sci.* 31 (Suppl.), A145.
358. McCoy T. J., Wadhwa M., and Keil K. (1995) Zagami: Another new lithology and a complex near-surface magmatic history. *Lunar and Planetary Science Conference XXVI*, 925-926.
359. Wadhwa M. and Crozaz G. (1995) Constraints on the rare earth element characteristics of metasomatizing fluids in the martian meteorite ALH84001. *Lunar and Planetary Science Conference XXVI*, 1451-1452.
360. Wadhwa M. and Lugmair G. W. (1995) Sm-Nd systematics of the eucrite Chervony Kut. *Lunar and Planetary Science Conference XXVI*, 1453-1454.
361. Wadhwa M. and Lugmair G. W. (1995) Samarium-neodymium and manganese-chromium systematics of the eucrite Caldera. *Meteoritics* 30, 592.
362. Wadhwa M. and Crozaz G. (1994) Rare earth element distributions in the Chassigny meteorite: Clues to its petrogenesis and relation to the nakhlites. *Lunar and Planetary Science Conference XXV*, 1451-1452.
363. Wadhwa M. and Crozaz G. (1994) First evidence of infiltration metasomatism in a martian meteorite, ALH84001. *Meteoritics* 29, 545.
364. Wadhwa M. and Crozaz G. (1993) Rare earth elements in individual minerals in shergottites. *Lunar and Planetary Science Conference XXIV*, 1473-1474.
365. Wadhwa M. and Crozaz G. (1993) An ion microprobe study of trace element microdistributions in martian (?) igneous rocks (SNC meteorites). *Geological Society of America Abstracts with Programs* 25, No. 6, A316.

366. Wadhwa M., McCoy T. J., Keil K., and Crozaz G. (1993) The chemical and physical evolution of late-stage melt in Zagami. *Meteoritics* 28, 453.
367. El Goresy A., Wadhwa M., Nagel H.-J., Zinner E. K., Janicke J., and Crozaz G. (1992) ^{53}Cr - ^{53}Mn systematics of Mn-bearing sulfides in four enstatite chondrites. *Lunar and Planetary Science Conference XXIII*, 331-332.
368. El Goresy A., Wadhwa M., Zinner E. K., Nagel H.-J., Janicke J., and Crozaz G. (1992) Mn-Cr systematics in sphalerites and niningerites from Qingzhen and Yamato69001: Implications regarding their formation histories. *Meteoritics* 27, 218.
369. Jolliff B. L. and Wadhwa M. (1992) The distribution of rare earth elements between lunar apatite and whitlockite. *Lunar and Planetary Science Conference XXIII*, 625-626.
370. Wadhwa M. and Crozaz G. (1992) REE in minerals in Nakhla and Lafayette: A comparative study of trace element microdistributions. *Lunar and Planetary Science Conference XXIII*, 1483-1484.
371. Wadhwa M. and Crozaz G. (1992) Trace element characteristics of the new shergottite LEW88516. *Meteoritics* 27, 302.
372. Wadhwa M. and Crozaz G. (1992) Trace element microdistributions in the nakhlites: Implications for parent melt compositions. *Meteoritics* 27, 302.
373. Wadhwa M., McSween H. Y., Jr., and Crozaz G. (1991) Trace element distributions in minerals of EETA79001: Clues to the petrogenesis of a unique shergottite. *Meteoritics* 26, 404.

THESIS

- Wadhwa M. (1994) Geochemical studies of two unusual groups of meteorites: Trace elements in SNC meteorites and Mn-Cr systematics in unequilibrated enstatite chondrites. Ph.D. dissertation, Washington University in St. Louis.