

BIOGRAPHICAL INFORMATION: SEAN CARL SOLOMON

Born: Los Angeles, California; October 24, 1945

Citizenship: U.S.A.

Business Address: Lamont-Doherty Earth Observatory
Columbia University
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EDUCATION

B.S. in geophysics (with honor), California Institute of Technology June 1966
Ph.D. in geophysics, Massachusetts Institute of Technology February 1971

EMPLOYMENT

Department of Earth, Atmospheric, and Planetary Sciences, Massachusetts Institute of Technology
Assistant Professor of Geophysics January 1972-June 1977
Associate Professor of Geophysics July 1977-June 1983
Professor of Geophysics July 1983-August 1992

Department of Terrestrial Magnetism, Carnegie Institution of Washington
Director September 1992-September 2011
Director Emeritus and Research Staff Member September 2011-June 2012

Columbia University
Director, Lamont-Doherty Earth Observatory July 2012-June 2020
Associate Director for Earth Systems Science, The Earth Institute July 2012-June 2020
William B. Ransford Professor of Earth and Planetary Science July 2012-June 2020
Adjunct Senior Research Scientist, Lamont-Doherty Earth Observatory July 2020-June 2026
Doherty Senior Scholar, Lamont-Doherty Earth Observatory December 2024-present

VISITING APPOINTMENTS

Visiting Scientist, Lunar Science Institute January 1975
Physicist (temporary), Lawrence Livermore Laboratory July-August 1978
Guest Investigator, Woods Hole Oceanographic Institution Summers, 1979-1992

Visiting Faculty, Institute of Geophysics and Planetary Physics and Department of Earth and Space Sciences, University of California, Los Angeles September 1982-June 1983
Visiting Scientist, Jet Propulsion Laboratory September 1982-June 1983

Roland and Jane Blumberg Visiting Professor of Planetary Sciences, University of Texas at Austin November 1988

Visiting Associate, Division of Geological and Planetary Sciences, California Institute of Technology September 1990-May 1991

Japan Society for the Promotion of Science Fellow, University of Tokyo, Hokkaido University, and Kyushu University September-October 1998

HONORS AND AWARDS

Tau Beta Pi 1965
National Science Foundation Graduate Fellow 1966-1968
Fannie and John Hertz Foundation Fellow 1968-1971
National Science Foundation Postdoctoral Fellow 1971-1972
Alfred P. Sloan Research Fellow 1977-1981
Fellow, American Geophysical Union 1980
Fellow, John Simon Guggenheim Memorial Foundation 1982-1983
Fellow, American Academy of Arts and Sciences 1995
Fellow, American Association for the Advancement of Science 1995
Fellow, Geological Society of America 1997
Arthur L. Day Prize and Lectureship, National Academy of Sciences 1999

Grove Karl Gilbert Award, Geological Society of America	1999
Member, National Academy of Sciences	2000
Public Service Medal, National Aeronautics and Space Administration	2004
Harry H. Hess Medal, American Geophysical Union	2005
Distinguished Alumni Award, California Institute of Technology	2006
Nelson P. Jackson Aerospace Award (to the MESSENGER team), National Space Club	2009
Member, International Academy of Astronautics	2010
Asteroid 25137 (1998 SS23) named Seansolomon	2011
Laurels for Team Achievement Award (to the MESSENGER team), International Academy of Astronautics	2012
Space Pioneer Award (to the MESSENGER project), National Space Society	2014
National Medal of Science (for 2012)	2014
Basic Sciences Book Award, International Academy of Astronautics	2019

HONORARY LECTURESHIPS

Robert H. Lommen Distinguished Lecturer, St. Louis University	1986
W. C. Krumbein Lecturer, Northwestern University and University of Chicago	1992
W. S. Jardetzky Lecturer, Lamont-Doherty Earth Observatory, Columbia University	1994
S. Thomas Crough Memorial Lecturer, Purdue University	1996
J. Tuzo Wilson Lecturer, University of Toronto	1997
Harold Masursky Lecturer, 32 nd Lunar and Planetary Science Conference	2001
A. O. C. Nier Memorial Lecturer, University of Minnesota	2003
McDonnell Lecturer, Washington University	2007
Thomas A. Mutch Memorial Lecturer, Brown University	2007
Wilmot Hyde Bradley Lecturer, Geological Society of Washington	2008
Barringer Invitational Lecturer, 73 rd Annual Meeting of the Meteoritical Society	2010
Shoemaker Lecturer, American Geophysical Union	2011
Thomas G. Bullen Memorial Lecturer in Science and Technology, Iona College	2013
University Lecturer, Columbia University	2014

OCEANOGRAPHIC EXPEDITIONS

R/V Argo, Nova Expedition (Southwest Pacific Ocean)	August-October 1967
R/V Atlantis II, Cruise 93 (Southwest Indian Ocean Ridge)	February-March 1976
F/S Meteor, Cruise 45 (Reykjanes Ridge Iceland Seismic Project)	June-July 1977
R/V Robert Conrad, Cruise RC 22 (Rivera Ocean Seismic Experiment)	January-February 1979
R/V Endeavor, Cruise EN-051 (Oceanographer Fracture Zone)	May-June 1980
R/V Knorr, Cruise KN-92 (Mid-Atlantic Ridge, 23°N)	January-March 1982
R/V Knorr, Cruise KN-115 (Mid-Atlantic Ridge, 26°N)	June-July 1985
R/V Oceanus, Cruise OC-180 (Kane Fracture Zone)	December 1986-January 1987
R/V Thomas Washington, RAITT Expedition (East Pacific Rise, 9°30'N)	January-February 1988

SPACECRAFT MISSION EXPERIENCE

Co-Investigator, Magellan (previously Venus Orbiting Imaging Radar and Venus Radar Mapper)	
Project Science Group	1982-1994
Radar Investigation Group	1982-1994
Mars Global Surveyor (previously Mars Observer)	
Co-Investigator, Mars Orbiter Laser Altimeter	1986-2005
Principal Investigator, MESSENGER (Mercury Surface, Space ENvironment, GEOchemistry, and Ranging)	1999-2018
Co-Investigator, GRAIL (Gravity Recovery and Interior Laboratory)	2007-2016

EDITORIAL EXPERIENCE

Associate Editor, <i>Proceedings of the Lunar and Planetary Science Conference</i>	1976, 1978
Associate Editor, <i>Journal of Geophysical Research</i>	1976-1978
Associate Editor, <i>Proceedings of the Conference on Comparisons of Mercury and the Moon</i> ,	

<i>Physics of the Earth and Planetary Interiors</i> , 15 (2/3)	1977
Associate Editor, <i>Eos</i> , <i>Transactions of the American Geophysical Union</i>	1979-1981
Editor, Proceedings of the Symposium on Quantitative Methods of Assessing Plate Motions, <i>Tectonophysics</i> , 74 (1/2)	1981
Editorial Board, <i>Physics and Chemistry of the Earth</i>	1981-1985
Geophysical Monograph Board, American Geophysical Union	1982-1984
Chair	1983-1984
Associate Editor, <i>Geophysical Research Letters</i>	1986-1988
Editorial Committee, <i>Annual Review of Earth and Planetary Sciences</i>	1993-1997
Board of Advisory Editors, <i>Earth and Planetary Science Letters</i>	2001-2007
Editorial Board, <i>Astrobiology</i>	2001-2014
Guest Editor, MESSENGER's First Flyby of Mercury, <i>Earth and Planetary Science Letters</i> , 285 (3/4), https://www.sciencedirect.com/journal/earth-and-planetary-science-letters/vol/285/issue/3	2009
Managing Guest Editor, Mercury after the MESSENGER Flybys, <i>Planetary and Space Science</i> , 59 (15), https://www.sciencedirect.com/journal/planetary-and-space-science/vol/59/issue/15	2011
Guest Editor, MESSENGER Views Mercury from Orbit, <i>Journal of Geophysical Research</i> , https://agupubs.onlinelibrary.wiley.com/doi/toc/10.1002/(ISSN)2169-9100.MESSENGER1	2012-2014

PROFESSIONAL SOCIETIES

American Geophysical Union	1967-present
American Association for the Advancement of Science	1968-present
Seismological Society of America	1969-present
Geological Society of America	1983-present
Division for Planetary Sciences, American Astronomical Society	1990-present

PROFESSIONAL SERVICE

National Aeronautics and Space Administration

Lunar Sample Analysis Planning Team	1974-1976
Basaltic Volcanism Project, Lunar and Planetary Institute, Team leader for thermal histories of the terrestrial planets	1976-1979
Venus Orbital Imaging Radar Science Working Group	1977-1978
Lunar and Planetary Review Panel	1980-1982
Crustal Dynamics Project Proposal Evaluation Panel	1981
Planetary Geology Working Group	1982-1984
Crustal Dynamics Project Working Group	1982-1991
Geopotential Research Mission Science Steering Group	1982-1987
Planetary Geology Review Panel	1983-1984
Chair, Planetary Geology and Geophysics Working Group	1984-1986
Lunar and Planetary Geosciences Review Panel	1984-1985, 1986-1988
Chair	1986-1988
Space and Earth Science Advisory Committee	1984-1987
Solid Earth Geophysics Working Group, Earth Systems Science Committee	1984-1985
Mars Rover Sample Return Science Working Group	1987-1989
Chair, Project Steering Committee, Mars: Evolution of Volcanism, Tectonics, and Volatiles	1987-1990
Magellan Guest Investigator Review Panel	1990
MESUR (Mars Environmental Survey) Mission Science Definition Team	1991-1993
Chair, Venus Data Analysis Program Review Panel	1992
Planetary Geology and Geophysics Management and Operations Working Group	1992-1997, 2000-2005
Chair	1994-1997
Terrestrial Planetary Bodies Science Working Group	1994-1996
Rosetta Orbiter Review Panel	1995
Mars Microprobe Science Advisory Team, New Millennium Program	1995-1997
Solar System Exploration Roadmap Development Team	1996

Solar System Exploration Subcommittee, Space Science Advisory Committee	1996-2000
Task Force on MO&DA and R&A, Space Science Advisory Committee	1997-1998
Earth System Science and Applications Advisory Committee	1998-2002
Executive Council, NASA Astrobiology Institute	1998-2008
Chair, Solid Earth Science Working Group	2000-2002
Chair, Review Panel for NASA Specialized Centers of Research and Training in Astrobiology	2001-2002
Strategic Roadmap Committee for Earth Science and Applications from Space	2004-2005
Chair, Planetary Science Subcommittee, NASA Advisory Council	2006-2009
Chair, MESSENGER Participating Scientist Review Panel	2006
Chair, Solar System Exploration Research Virtual Institute Review Panel	2013
Chair, Gravity Science Working Group, Europa Multiple Flyby Mission	2015-2016
New Frontiers Review Panel	2017
Chair, Planetary Mission Senior Review	2020, 2025

U. S. Geological Survey

Earthquake Hazards Reduction Program Peer Review Panel	1975, 1985
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National Academy of Sciences/National Research Council

Committee on Planetary and Lunar Exploration, Space Science Board	1976-1979
Space Science Board	1978-1982
Chair, Committee on Earth Sciences, Space Science Board	1979-1982
Joint U.S.-European Working Group on Cooperation in Planetary Exploration	1982-1983
Board on Earth Sciences	1985-1988
Steering Committee, RIDGE (Ridge Inter-Disciplinary Global Experiments) Project	1987-1990
Committee on Cooperative Mars Exploration and Sample Return, Space Science Board	1987-1988
Nominating Committee	2002-2003, 2004-2005
Class I Membership Committee	2003, 2006-2008
Chair, Selection Committee, 2005 Arthur L. Day Prize and Lectureship	2004
Chair, Section 16 (Geophysics)	2005-2008
Committee on Grand Research Questions in the Solid-Earth Sciences	2006-2007
Audit Committee	2008-2010, 2022-2025
Secretary, Class I (Physical and Mathematical Sciences)	2009-2012
Chair, Class I (Physical and Mathematical Sciences)	2012-2015
Council	2019-2022
Committee on Budget and Internal Affairs	2019-2022
Committee on Scientific Programs	2019-2022
Executive Committee	2020-2022

Universities Space Research Association

Lunar and Planetary Science Council	1978-1980, 1991-1993
Chair, Lunar and Planetary Institute Science Council	2013-2020
Board of Trustees	2023-2029
Audit and Finance Committee	2023-2029
Governance, Nominations, and Membership Committee	2023-2029
Chair	2025-2029

International Union of Geodesy and Geophysics

Convener, Interdisciplinary Symposium on Quantitative Methods of Assessing Plate Motions, XVII General Assembly	1979
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Inter-Union Commission on the Lithosphere

Working Group 1: Recent Plate Movements and Deformation	1981-1983
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Department of Defense

Technical Review Panel on Nuclear Test Ban Treaty Verification, Defense Advanced Research Projects Agency	1981-1986
Geophysics Review Panel, Air Force Office of Scientific Research	1984
Board of Visitors, Ocean Sciences Directorate, Office of Naval Research	1993

Association of American Universities

Steering Committee, Space Science Working Group	1984-91
Chair	1987-89

American Geophysical Union

President-Elect and President, Planetology Section	1984-88
Council	1984-88, 1994-2000
Chair, Editor Search Committee, <i>Journal of Geophysical Research–Solid Earth and Planets</i>	1986, 1988
Harry H. Hess Medal Committee	1990-1992
Chair, Edward A. Flinn Award Committee	1990-1992
Fellows Committee	1992-1994
President-Elect	1994-1996
Executive Committee	1994-1998
President	1996-1998
Past-President	1998-2000
Chair, Nominations Committee	2000-2002
William Bowie Medal Committee	2006-2010

National Science Foundation

Review Panel for Incorporated Research Institutions for Seismology Program Plan	1986
Review Panel for Ocean Drilling Program	1988
Screening Panel, Earth Sciences Division Director	1995
Graduate Fellowship Review Panel	1996
Co-Chair, Solid Earth Working Group, Future of Marine Geosciences Workshop	1996-1997
Screening Panel, Ocean Sciences Division Director	2001
Search Committee, Assistant Director for Geosciences	2003
Search Committee, Earth Sciences Division Director	2006
Chair, Review Committee, Ocean Observatories Initiative Scientific Objectives and Network Design	2006, 2007
Advisory Committee for Geosciences	2006-2008
GEO Vision Working Group	2006-2008
Chair, Committee of Visitors, Deep Earth Processes Section	2008
EarthScope Facility Review Panel	2010

Department of Energy

Geosciences Research Council	1986-1987
Physical Sciences Advisory Committee, Lawrence Livermore National Laboratory (LLNL)	1993-1994
Environmental Programs Scientific Advisory Committee, LLNL	1995-1998
Chair, Earth and Environmental Sciences Directorate Advisory Committee, LLNL	1998-2000
Energy and Environment Directorate Scientific Advisory Committee, LLNL	2001

Incorporated Research Institutions for Seismology

Standing Committee for the Global Seismic Network	1987-1990
Chair	1988-1990
Science Task Force	1995

Geological Society of America

G. K. Gilbert Award Committee	2002-2003
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Arthur L. Day Medal Committee	2003-2004
Canadian Institute for Advanced Research	
Earth System Evolution Program Review Panel	2013
Connecticut Academy of Science and Engineering	
Connecticut Medal of Science Selection Committee	2015
Academic and Institutional Review Committees	
Committee to Visit the Department of Earth and Planetary Sciences, Harvard University	1993-1999, 2002-2005, 2020
Review Team, Laboratory for Terrestrial Physics, NASA Goddard Space Flight Center	1993
Visiting Committee, National Astronomy and Ionosphere Center, Arecibo Observatory, Cornell University	1995-1998
Visiting Committee, School of Earth and Atmospheric Sciences, Georgia Institute of Technology	1996, 2003
Geoscience Evaluation Panel, Danish National Research Foundation	1997
Chair, Academic Review Committee, Department of Geosciences, Princeton University	1998
External Review Committee, MIT/Woods Hole Oceanographic Institution Joint Program in Oceanography and Applied Ocean Science and Engineering	1998, 2004, 2009
Chair	1998
Institutional Review Committee, Scripps Institution of Oceanography	1999
Physical and Mathematical Sciences and Environmental Studies Cluster Review Committee, Brown University	1999
Chair, External Advisory Committee for Geology and Geophysics, Rice University	2000
Advisory Committee, Institute of Earth Sciences, Academia Sinica, Taiwan	2000-2005
Chair	2002-2005
Academic Program Review Committee, Department of Geosciences, University of Arizona	2001
External Assessment Team, Department of Earth and Environmental Sciences, Columbia University	2001
Scientific Advisory Board (Fachbeirat), Max Planck Institute for Chemistry	2001-2009
Advisory Committee, Center for Integrative Planetary Science, University of California, Berkeley	2003-2006
Advisory Council, Southern California Earthquake Center	2003-2007
Chair	2004-2007
Visiting Committee, Earth Sciences Directorate, NASA Goddard Space Flight Center	2003
External Review Committee, Department of Geology, University of Maryland	2003
Visiting Committee, Harvard-Smithsonian Center for Astrophysics	2004, 2007
External Advisory Board, The Earth Institute, Columbia University	2004-2011
External Review Committee, School of Earth and Environmental Sciences, Seoul National University	2005
Visiting Committee, Berkeley Geochronology Center	2005
Chair, External Review Committee, Department of the Geophysical Sciences, University of Chicago	2005
Chair, External Advisory Committee, Department of Earth Science, Rice University	2005
Chair, External Review Committee, Department of Earth and Planetary Sciences, Washington University	2007
Visiting Committee, Division of Geological and Planetary Sciences, California Institute of Technology	2010, 2017
Co-chair	2017
External Review Committee, Department of Geology, University of Kansas	2011
Academic Senate Program Review Committee, Department of Earth and Space Sciences, UCLA	2013
Chair, Academic Program Review Committee, Department of Planetary Sciences/Lunar and Planetary Laboratory, University of Arizona	2014
External Review Committee, Department of Earth, Atmospheric, and Planetary Sciences, Purdue University	2014
External Review Committee, Jackson School of Geosciences, University of Texas, Austin	2016
Chair, Visiting Committee, Department of Geophysics, Stanford University	2019
External Review Committee, Department of Earth and Planetary Science, University of California, Berkeley	2022

PUBLICATIONS

Refereed Journal Articles

- Solomon, S. C., and M. N. Toksöz, On the density distribution in the Moon, *Phys. Earth Planet. Inter.*, *1*, 475-484, doi:10.1016/0031-9201(68)90016-2, 1968.
- Solomon, S. C., and S. Biehler, Crustal structure from gravity anomalies in the southwest Pacific, *J. Geophys. Res.*, *74*, 6696-6701, doi:10.1029/JB074i027p06696, 1969.
- Solomon, S. C., and M. N. Toksöz, Lateral variation of attenuation of P and S waves beneath the United States, *Bull. Seismol. Soc. Am.*, *60*, 819-838, doi:10.1785/BSSA0600030819, 1970.
- Solomon, S. C., Seismic-wave attenuation and partial melting in the upper mantle of North America, *J. Geophys. Res.*, *77*, 1483-1502, doi:10.1029/JB077i008p01483, 1972.
- Toksöz, M. N., S. C. Solomon, J. W. Minear, and D. H. Johnston, Thermal evolution of the Moon, *The Moon*, *4*, 190-213, doi:10.1007/BF00562926, 1972.
- Solomon, S. C., On Q and seismic discrimination, *Geophys. J. Roy. Astron. Soc.*, *31*, 163-177, doi:10.1111/j.1365-246X.1972.tb02365.x, 1972.
- Solomon, S. C., and M. N. Toksöz, Internal constitution and evolution of the Moon, *Phys. Earth Planet. Inter.*, *7*, 15-38, doi:10.1016/0031-9201(73)90037-X, 1973.
- Toksöz, M. N., and S. C. Solomon, Thermal history and evolution of the Moon, *The Moon*, *7*, 251-278, doi:10.1007/BF00564634, 1973.
- Solomon, S. C., Shear-wave attenuation and melting beneath the Mid-Atlantic Ridge, *J. Geophys. Res.*, *78*, 6044-6059, doi:10.1029/JB078i026p06044, 1973.
- Toksöz, M. N., A. M. Dainty, S. C. Solomon, and K. R. Anderson, Velocity structure and evolution of the Moon, *Proc. Lunar Sci. Conf. 4th, Geochim. Cosmochim. Acta, Suppl. 4*, 2529-2547, 1973.
- Solomon, S. C., Density within the Moon and implications for lunar composition, *The Moon*, *9*, 147-166, doi:10.1007/BF00565401, 1974.
- Solomon, S. C., and R. G. Butler, Prospecting for dead slabs, *Earth Planet. Sci. Lett.*, *21*, 421-430, doi:10.1016/0012-821X(74)90182-4, 1974.
- Solomon, S. C., and N. H. Sleep, Some simple physical models for absolute plate motions, *J. Geophys. Res.*, *79*, 2557-2567, doi:10.1029/JB079i017p02557, 1974.
- Ambuter, B. P., and S. C. Solomon, An event recording system for monitoring small earthquakes, *Bull. Seismol. Soc. Am.*, *64*, 1181-1188, doi:10.1785/BSSA0640041181, 1974.
- Solomon, S. C., and B. R. Julian, Seismic constraints on ocean-ridge mantle structure: Anomalous fault-plane solutions from first motions, *Geophys. J. Roy. Astron. Soc.*, *38*, 265-285, doi:10.1111/j.1365-246X.1974.tb04120.x, 1974.
- Siegfried, R. W., II, and S. C. Solomon, Mercury: Internal structure and thermal evolution, *Icarus*, *23*, 192-205, doi:10.1016/0019-1035(74)90005-0, 1974.
- Toksöz, M. N., A. M. Dainty, S. C. Solomon, and K. R. Anderson, Structure of the Moon, *Rev. Geophys. Space Phys.*, *12*, 539-567, doi:10.1029/RG012i004p00539, 1974.
- Dainty, A. M., M. N. Toksöz, S. C. Solomon, K. R. Anderson, and N. R. Goins, Constraints on lunar structure, *Proc. Lunar Sci. Conf. 5th, Geochim. Cosmochim. Acta, Suppl. 5*, 3091-3114, 1974.
- Solomon, S. C., N. H. Sleep, and R. M. Richardson, On the forces driving plate tectonics: Inferences from absolute plate velocities and intraplate stress, *Geophys. J. Roy. Astron. Soc.*, *42*, 769-801, doi:10.1111/j.1365-246X.1975.tb05891.x, 1975.

- Lee, W. B., and S. C. Solomon, Inversion schemes for surface wave attenuation and Q in the crust and the mantle, *Geophys. J. Roy. Astron. Soc.*, **43**, 47-71, doi:10.1111/j.1365-246X.1975.tb00627.x, 1975.
- Solomon, S. C., Mare volcanism and lunar crustal structure, *Proc. Lunar Sci. Conf. 6th, Geochim. Cosmochim. Acta, Suppl. 6*, 1021-1042, 1975.
- Solomon, S. C., and K. T. Paw U, Elevation of the olivine-spinel transition in subducted lithosphere: Seismic evidence, *Phys. Earth Planet. Inter.*, **11**, 97-108, doi:10.1016/0031-9201(75)90003-5, 1975.
- Chapman, M. E., and S. C. Solomon, North American-Eurasian plate boundary in northeast Asia, *J. Geophys. Res.*, **81**, 921-930, doi:10.1029/JB081i005p00921, 1976.
- Richardson, R. M., S. C. Solomon, and N. H. Sleep, Intraplate stress as an indicator of plate tectonic driving forces, *J. Geophys. Res.*, **81**, 1847-1856, doi:10.1029/JB081i011p01847, 1976.
- Solomon, S. C., Some aspects of core formation in Mercury, *Icarus*, **28**, 509-521, doi:10.1016/0019-1035(76)90124-X, 1976.
- Solomon, S. C., Geophysical constraints on radial and lateral temperature variations in the upper mantle, *Amer. Mineral.*, **61**, 788-803, 1976.
- Solomon, S. C., and J. Chaiken, Thermal expansion and thermal stress in the Moon and terrestrial planets: Clues to early thermal history, *Proc. Lunar Sci. Conf. 7th, Geochim. Cosmochim. Acta, Suppl. 7*, 3229-3243, 1976.
- Solomon, S. C., N. H. Sleep, and R. M. Richardson, Implications of absolute plate motions and intraplate stress for mantle rheology, *Tectonophysics*, **37**, 219-231, doi:10.1016/0040-1951(77)90049-X, 1977.
- Mattaboni, P. J., and S. C. Solomon, MITOBS: A seismometer system for ocean-bottom earthquake studies, *Mar. Geophys. Res.*, **3**, 87-102, doi:10.1007/BF00309795, 1977.
- Solomon, S. C., N. H. Sleep, and D. M. Jurdy, Mechanical models for absolute plate motions in the early Tertiary, *J. Geophys. Res.*, **82**, 203-212, doi:10.1029/JB082i002p00203, 1977.
- Richardson, R. M., and S. C. Solomon, Apparent stress and stress drop for intraplate earthquakes and tectonic stress in the plates, *Pure Appl. Geophys.*, **115**, 317-331, doi:10.1007/BF01637112, 1977.
- Duschesnes, J. D., and S. C. Solomon, Shear wave travel time residuals from oceanic earthquakes and the evolution of oceanic lithosphere, *J. Geophys. Res.*, **82**, 1985-2000, doi:10.1029/JB082i014p01985, 1977.
- Solomon, S. C., The relationship between crustal tectonics and internal evolution in the Moon and Mercury, *Phys. Earth Planet. Inter.*, **15**, 135-145, doi:10.1016/0031-9201(77)90026-7, 1977.
- Solomon, S. C., and J. Longhi, Magma oceanography: 1. Thermal evolution, *Proc. Lunar Sci. Conf. 8th, Geochim. Cosmochim. Acta, Suppl. 8*, 583-599, 1977.
- Solomon, S. C., P. J. Mattaboni, and R. J. Hester, Microseismicity near the Indian Ocean triple junction, *Geophys. Res. Lett.*, **4**, 597-600, doi:10.1029/GL004i012p00597, 1977.
- Burr, N. C., and S. C. Solomon, The relationship of source parameters of oceanic transform earthquakes to plate velocity and transform length, *J. Geophys. Res.*, **83**, 1193-1205, doi:10.1029/JB083iB03p01193, 1978.
- Lee, W. B., and S. C. Solomon, Simultaneous inversion of surface wave phase velocity and attenuation: Love waves in western North America, *J. Geophys. Res.*, **83**, 3389-3400, doi:10.1029/JB083iB07p03389, 1978.
- Solomon, S. C., On volcanism and thermal tectonics on one-plate planets, *Geophys. Res. Lett.*, **5**, 461-464, doi:10.1029/GL005i006p00461, 1978.
- Thurber, C. H., and S. C. Solomon, An assessment of crustal thickness variations on the lunar nearside: Models, uncertainties, and implications for crustal differentiation, *Proc. Lunar Planet. Sci. Conf. 9th, Geochim. Cosmochim. Acta, Suppl. 9*, 3481-3497, 1978.
- Solomon, S. C., The nature of isostasy on the Moon: How big a Pratt-fall for Airy models?, *Proc. Lunar Planet. Sci. Conf. 9th, Geochim. Cosmochim. Acta, Suppl. 9*, 3499-3511, 1978.

- Solomon, S. C., and N. C. Burr, The relationship of source parameters of ridge-crest and transform earthquakes to the thermal structure of oceanic lithosphere, *Tectonophysics*, 55, 107-126, doi:10.1016/0040-1951(79)90337-8, 1979.
- Lee, W. B., and S. C. Solomon, Simultaneous inversion of surface wave phase velocity and attenuation: Rayleigh and Love waves over continental and oceanic paths, *Bull. Seismol. Soc. Am.*, 69, 65-95, doi:10.1785/BSSA0690010065, 1979.
- Solomon, S. C., Formation, history and energetics of cores in the terrestrial planets, *Phys. Earth Planet. Inter.*, 19, 168-182, doi:10.1016/0031-9201(79)90081-5, 1979.
- Solomon, S. C., and J. W. Head, Vertical movement in mare basins: Relation to mare emplacement, basin tectonics, and lunar thermal history, *J. Geophys. Res.*, 84, 1667-1682, doi:10.1029/JB084iB04p01667, 1979.
- Angenheister, G., H. Gebrande, H. Miller, W. Weigel, P. Goldflam, W. Jacoby, G. Palmason, S. Bjornsson, P. Einarsson, S. Zverev, B. Loncarevic, and S. C. Solomon, First results from the Reykjanes Ridge Iceland Seismic Project 1977, *Nature*, 279, 56-60, doi:10.1038/279056a0, 1979.
- Richardson, R. M., S. C. Solomon, and N. H. Sleep, Tectonic stress in the plates, *Rev. Geophys. Space Phys.*, 17, 981-1019, doi:10.1029/RG017i005p00981, 1979.
- Comer, R. P., S. C. Solomon, and J. W. Head, Elastic lithosphere thickness on the Moon from mare tectonic features: A formal inversion, *Proc. Lunar Planet. Sci. Conf. 10th, Geochim. Cosmochim. Acta, Suppl. 11*, 2441-2463, 1979.
- Solomon, S. C., Differentiation of crusts and cores of the terrestrial planets: Lessons for the early Earth?, *Precambrian Res.*, 10, 177-194, doi:10.1016/0301-9268(80)90011-X, 1980.
- Solomon, S. C., and J. W. Head, Lunar mascon basins: Lava filling, tectonics, and evolution of the lithosphere, *Rev. Geophys. Space Phys.*, 18, 107-141, doi:10.1029/RG018i001p00107, 1980.
- RRISP Working Group (Angenheister, G., H. Gebrande, H. Miller, P. Goldflam, W. Weigel, W. R. Jacoby, G. Palmason, S. Bjornsson, P. Einarsson, N. I. Pavlenkova, S. M. Zverev, I. V. Litvinenko, B. Loncarevic, and S. C. Solomon), Reykjanes Ridge Iceland Seismic Experiment (RRISP 77), *J. Geophys.*, 47, 228-238, 1980.
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ACADEMIC SUPERVISION

Postdoctoral Scientists

Longhi, John	1976-1977
Consolmagno, Guy J.	1980-1982
Bergman, Eric A.	1984-1986
Huang, Paul Y.	1986-1987
Toomey, Douglas R.	1987-1990
Grimm, Robert E.	1988
Smrekar, Suzanne E.	1990-1991
Sheehan, Anne F.	1991
Bjarnason, Ingi Th.	1993-1994
VanDecar, John C.	1993-1996
Wolfe, Cecily J.	1994-1997
Johnson, Catherine L.	1995-1998
McGovern, Patrick J.	1996-1999
Hooft, Emilie E. E.	1997-1999
Freed, Andrew M.	1998-2001
Dombard, Andrew J.	2000-2002
Aurnou, Jonathan M.	2000-2002
Hauck, Steven A., II	2001-2003
Weeraratne, Dayanthie S.	2004-2007
Hier-Majumder, Catherine A.	2005-2006
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