
SCOTT A. SANDFORD - NASA AMES RESEARCH CENTER

Astrophysics Branch, Mail Stop 245-6, Moffett Field, CA 94035-1000

Phone: 650-604-6849 Fax: 650-604-6779 Email: Scott.A.Sandford@nasa.gov

Related Experience Summary

Dr. Sandford has over 25 years of experience within the fields of infrared spectroscopy, infrared astronomy, laboratory astrophysics, astrochemistry, and astrobiology, and the study of extraterrestrial materials (particularly meteorites, interplanetary dust particles, and comet dust). His experience includes the use of multiple laboratory analytical techniques, and ground-based, airborne, and spaceborne telescopes. He also has worked on a number of space missions, including sample return missions like Stardust and Hayabusa.

Employment History

1986-present Astrophysicist (Civil Service), Astrophysics Branch of the Space Sciences Division, NASA Ames Research Center, Field, CA (Laboratory astrophysics).

Education

B.S. with highest honors in Mathematics and Physics, December 22, 1978, New Mexico Institute of Mining and Technology, Socorro, N.M. 87801

M.A. in Physics, May 22, 1981, Washington University, St. Louis, MO 63130

Ph.D. in Physics, December 22, 1985, Washington University, St. Louis, MO 63130

Professional Societies

American Astronomical Society (1982 - present, Full member)

American Physical Society (1981 - present, Full member)

Astronomical Society of the Pacific (1996-present, Full member)

Meteoritical Society (1981 - present, Full member)

International Astronomical Union (1994 - present, Member)

American Association for the Advancement of Science (2006-present, Member)

Awards and Honors

Multiple NASA Stardust Group Achievement Awards (2000, 2004, 2005, 2007)

Multiple NASA Special Achievement Awards (1989, 1993, 1997, 1998)

2006 NASA/Ames Scientist/Researcher Honor Award (also 1996)

2006 Named a Fellow of the Meteoritical Society

2004 Asteroid 16035 named 16035 Sasandford

2002 NASA Group Achievement Award – The Astrochemistry Laboratory

2000 NASA Group Achievement Award - NASA Astrobiology Team

2000 Named an Ames Associate Fellow (5/18/00)

1986 Awarded the Antarctic Service Medal (for work done with ANSMET)

1979-1984 Recipient of the Virgil I. Grissom Astronautics and McDonnell Fellowships, Washington Univ.

Selected Relevant Publications

Bernstein, M. P., Sandford, S. A., Mattioda, A. L., & Allamandola, L. J. (2007). Near- and Mid-Infrared Laboratory Spectra of PAH Cations in Solid H₂O. *Astrophys. J.* 664, 1264-1272.

Elsila, J. E., Dworkin, J. D., Bernstein, M. P., & Sandford, S. A. (2007). Mechanisms of Amino Acid Formation in Interstellar Ice Analogs. *Astrophys. J.* 660, 911-918.

Sandford, S. A., et al. (2006). Organics Captured from Comet 81P/Wild 2 by the Stardust Spacecraft. *Science* 314, 1720-1724.

Sandford, S. A. (2005). Organic Synthesis in Space. In *Astrophysics of Life, Space Telescope Institute Symposium Series, Vol. 16*, M. Livio, N. Reid, & W. Sparks, eds., (Cambridge Univ. Press: Cambridge), pp. 54-66 [ISBN: 0-521-82490-7]

Bernstein, M. P., Sandford, S. A., & Allamandola, L. J. (2005). The Mid-Infrared Absorption Spectra of Neutral Polycyclic Aromatic Hydrocarbons in Conditions Relevant to Dense Interstellar Clouds. *Astrophys. J. Suppl. Ser.* 161, 53-64.
