

## Curriculum Vitae

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#### EDUCATION:

Ph.D. 1995, University of Colorado at Boulder Dept. of Astrophysical, Planetary, and Atmospheric Sciences.  
M.S. 1993, University of Colorado at Boulder, Dept. of Astrophysical, Planetary, and Atmospheric Sciences.  
M.S. 1985, Physics. University of Illinois at Champaign-Urbana.  
B.A. 1983, Physics, Mathematics, Integrated Science. Northwestern University, Evanston, Illinois.

SCIENTIFIC AFFILIATIONS: American Geophysical Union  
Division of Planetary Sciences; of the American Astronomical Society

#### EXPERIENCE:

Research Scientist, Space Science Institute, Boulder, CO. March, 2000 - present.  
Visiting Scientist, National Center for Atmospheric Research and High Altitude Observatory, Boulder, CO. 1998-2000. Modeling and observation of chemical species in the mesosphere and lower thermosphere. Drs. A.K. Smith and M. Hagan, supervisors.  
National Research Council Postdoctoral Researcher, Jet Propulsion Laboratory, Pasadena, CA. 1996-1997. Analysis of upper tropospheric water vapor data measured with the UARS Microwave Limb Sounder. Drs. J.W. Waters and W.G. Read, supervisors.  
Post-doctoral Researcher, Laboratory for Atmospheric and Space Physics, University of Colorado at Boulder, 1995. Re-analysis of SAGE II data. Dr. D. Rusch, supervisor.  
Research Assistant, Laboratory for Atmospheric and Space Physics, University of Colorado at Boulder, 1992-1995. Observation, data analysis, and modeling of microwave emission from Earth's atmosphere. (Preparation of Ph.D. Thesis, Dr. R. Todd Clancy, advisor.)  
Research Assistant, Laboratory for Atmospheric and Space Physics, University of Colorado at Boulder, 1986-1992. Modeling of auroral electron precipitation. (Preparation of M.S. Thesis, Dr. A.I.F. Stewart, advisor.)

#### AWARDS:

NASA Group Achievement Award for the Mars Global Surveyor Solar Array Anomaly Recovery and Aerobraking Team. 1999.

#### PUBLICATIONS:

**Sandor, B.J.**, and R.T. Clancy. Water Vapor Variations in the Venus Mesosphere from Microwave Spectra. *Icarus*, 177. 129–143. 2005.  
Clancy, R.T., **B.J. Sandor**, and G.H. Moriarty-Schieven, A Measurement of the 362 GHz Absorption Line of Mars Atmospheric H<sub>2</sub>O<sub>2</sub>. *Icarus*, 168. 116–121. 2004.

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- R.T. Clancy, **B.J. Sandor**, M.J. Wolff, P.R. Christensen, M.D. Smith, J.C. Pearl, B.J. Conrath, and R.J. Wilson. An Intercomparison of Ground-based Millimeter, MGS TES, and Viking Atmospheric Temperature Measurements: Seasonal and Interannual Variability of Temperatures and Dust Loading in the Global Mars Atmosphere, *J. Geophys. Res.*, 105. 9553-9571. 2000.
- Jensen, E.J., W.G. Read, J. Mergenthaler, **B.J. Sandor**, L. Pfister, and A. Tabazadeh. High Humidities and Subvisible Cirrus Near the Tropical Tropopause. *Geophys. Res. Lett.* 26. 2347-2350. 1999.
- Sandor, B.J.**, W.G. Read, J.W. Waters, and K.H. Rosenlof. Seasonal Behavior of Tropical to Mid-Latitude Upper Tropospheric Water Vapor from UARS MLS. *J. Geophys. Res.*, 103. 25,935-25,947. 1998.
- Sandor, B.J.**, and R.T. Clancy. Mesospheric HO<sub>x</sub> Chemistry from Diurnal Microwave Observations of HO<sub>2</sub>, O<sub>3</sub>, and H<sub>2</sub>O. *J. Geophys. Res.*, 103. 13,337-13,352. 1998.
- Clancy, R.T., and **B.J. Sandor**. CO<sub>2</sub> Ice Clouds in the Upper Atmosphere of Mars. *Geophys. Res. Lett.* 25. 489-492. 1998.
- Sandor, B.J.**, and R.T. Clancy. Mesospheric Observations and Modeling of the Zeeman Split 233.9 GHz <sup>18</sup>O<sup>16</sup>O Line. *Geophys. Res. Lett.* 24. 1631-1631. 1997.
- Sandor, B.J.**, R.T. Clancy, D.W. Rusch, C.E. Randall, R.S. Eckman, D.S. Siskind, and D.O. Muhleman. Microwave Observations and Modeling of O<sub>2</sub>(<sup>1</sup>Δ<sub>g</sub>) and O<sub>3</sub> Diurnal Variation in the Mesosphere. *J. Geophys. Res.* 102. 9013-9028. 1997.
- Clancy, R.T., A.W. Grossman, M.J. Wolff, P.B. James, D.J. Rudy, Y.N. Billawala, **B.J. Sandor**, S.W. Lee, and D.O. Muhleman. Water Vapor Saturation at Low Altitudes around Mars Aphelion: A Key to Mars Climate? *Icarus*, 122. 36-62. 1996.
- Sandor, B.J.** Microwave Studies of Chemistry of the Middle Atmosphere. Ph.D. Thesis, Univ. of Colorado at Boulder. 1995.
- Sandor, B.J.**, and R.T. Clancy. Microwave Observations and Modeling of a Lunar Eclipse. *Icarus*. 115. 387-398. 1995.
- Clancy, R.T., **B.J. Sandor**, and D.W. Rusch. Microwave Observations and Modeling of O<sub>3</sub>, H<sub>2</sub>O, and HO<sub>2</sub> in the Mesosphere. *J. Geophys. Res.*, 99. 5465-5473. 1994.
- Sandor, B.J.** A Model of Jupiter's Polar Aurora. M.S. Thesis, Univ. of Colorado at Boulder. 1992.

Colwell, J.E., B.M. Jakosky, **B.J. Sandor**, and S.A. Stern. Evolution of Topography on Comets: II. Icy Craters and Trenches. *Icarus*, 85. 205-215. 1990.

PUBLISHED ABSTRACTS (selected):

Clancy, R.T., **B.J. Sandor**, and G.H. Moriarty-Schieven. Dynamics of the Venus Upper Atmosphere: Global-Temporal Distribution of Winds, Temperature, and CO at the Venus Mesopause. *October 2007 meeting of the DPS*. 2007.

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**Sandor, B.J.**, and R.T. Clancy. Water Vapor Variations in the Venus Mesosphere from HDO Microwave Spectra. *2004 Bull. Amer. Astron. Soc., v.36, abstract number 39.13*. p.1164. 2004.

**Sandor, B.J.**, and R.T. Clancy. HDO in the Mesosphere: Observation and Modeling of [HDO]/[H<sub>2</sub>O] Variability. *December 2002 meeting of the AGU*.

**Sandor, B.J.**, and R.T. Clancy. Vibrationally Excited Mesospheric O<sub>3</sub>: Ground-based Measurements, Chemical Modeling, and Implications for LTE. *December, 2000 meeting of the AGU*.

**Sandor, B.J.**, and R.T. Clancy. Vibrationally Excited Mesospheric O<sub>3</sub>: Ground-based Measurements and Implications for LTE. *Trans. Amer. Geophys. Union, 81*. S334. 2000.

**Sandor, B.J.**, and R.T. Clancy. Mesospheric HO<sub>2</sub> and O<sub>3</sub>: Measurements and Modeling *Trans. Amer. Geophys. Union, 80*. F132. 1999.

**Sandor, B.J.**, and R.T. Clancy. HDO Measurements in the Mesosphere and Implications for Hydrogen Chemistry. Chapman Conference: Atmospheric Science Across the Stratopause. Annapolis, MD. April, 1999.

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**Sandor, B.J.**, and R.T. Clancy. Measurements of HDO/H<sub>2</sub>O in the Mesosphere. *Trans. Amer. Geophys. Union, 79*. F112. 1998.

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**Sandor, B.J.**, and R.T. Clancy. Coordinated Observations of HCN and N<sub>2</sub>O in the Middle Atmosphere: Implications for HO<sub>x</sub> Chemistry and Use of HCN as a Dynamical Tracer. *Trans. Amer. Geophys. Union, 79*. S17. 1998.

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Clancy, R.T., **B.J. Sandor**, P.R. Christensen, J.C. Pearl, B.J. Conrath, and M.D. Smith. Comparisons of Ground-based Millimeter and TES Infrared Temperature Profile Sounding of the Mars Atmosphere (Sep97-Mar98). *Trans. Amer. Geophys. Union, 79*. S194. 1998.

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- Clancy, R.T., **B.J. Sandor**, D.W. Rusch, and C.A. Barth. 1991-1994 Measurements of Very Large Solar Cycle Variations in Lower Thermospheric NO from Ground-based Microwave Measurements of the 1.2 mm Rotational Line of NO. *Trans. Amer. Geophys. Union*, 75. S288. 1994.
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- Sandor, B.J.**, and R.T. Clancy. Microwave Observations of the Diurnal Variations of HO<sub>2</sub> and O<sub>3</sub> in the Mesosphere. *Trans. Amer. Geophys. Union*, 74. S72. 1993.