

## **PHILIP R. CHRISTENSEN**

### **Education**

|       |                              |      |                                       |
|-------|------------------------------|------|---------------------------------------|
| B.S.  | Geology                      | 1976 | University of California, Los Angeles |
| M.S.  | Geophysics and Space Physics | 1978 | University of California, Los Angeles |
| Ph.D. | Geophysics and Space Physics | 1981 | University of California, Los Angeles |

### **Professional Employment**

2004-present *Regents Professor*, Arizona State University  
2000-present *Ed and Helen Korrick Professor*, Arizona State University.  
1995-2000 *Professor*, Department of Geology, Arizona State University  
1990-1995 *Associate Professor*, Department of Geology, Arizona State University  
1986-1990 *Assistant Professor*, Department of Geology, Arizona State University  
1981-1986 *Faculty Research Associate*, Department of Geology, Arizona State University

### **Selected Funded Research Projects**

Instrument Lead, L'TES, NASA Lucy Discovery Mission, 2016-present.  
Principal Investigator, E-THEMIS, NASA Mars Europa Mission, 2015-present.  
Instrument Lead, EMIRS, UAE Emirates Mars Mission, 2015-present.  
Instrument Lead, OTES, NASA OSIRIS-REx New Frontiers Mission, 2010-present.  
Principal Investigator, Thermal Emission Imaging System (THEMIS), NASA Mars 2001 Orbiter Mission, 1997-present.  
Principal Investigator, Miniature Thermal Emission Spectrometer (Mini-TES), NASA Mars 2001/2003 Rover Mission, 1997-2018.  
Principal Investigator, NASA, Mars Instrument Develop. Program 2008-2013.  
Principal Investigator, NASA, THEMIS Imaging Facility and Student Imaging Project 2000-present.  
Principal Investigator, NASA, JMARS Data Analysis Tool, 2005-present  
Co-Investigator, NASA, Eos ASTER investigation 1990-present  
Principal Investigator, Thermal Emission Spectrometer (TES), NASA Mars Observer/Global Surveyor Mission, 1986-2007.  
Principal Investigator, NASA, Mars Fundamental Research Program, 2007-present.  
Principal Investigator, NASA, Planetary Geology Program, 1986-present.  
Principal Investigator, NASA, Mars Data Analysis Program, 1999-present.  
Principal Investigator, NASA, Planetary Instrument Definition and Development Program, 1984-1987; 1996-1998.

### **Selected National Service**

Co-Chair, Committee on Astrobiology and Planetary Science, NRC, 2011-2016  
Chair, Mars Panel, National Research Council Planetary Science Decadal Survey, 2010-2011  
Chair, NASA Mars Architecture Tiger Team (2008-2010)  
MEPAG Executive Committee, 2007-present  
Chair, NASA Mars Reconnaissance Orbiter MOS/GDS Review Board (2003-2006)  
NASA Mars Reconnaissance Orbiter Science Definition Team (2001)  
Lunar and Planetary Institute (LPI) Science Council (2001-2002)  
Chair, NASA Planetary Geology and Geophysics Review Panel (1994-1995)  
National Academy of Sciences Committee on Planetary and Lunar Exploration (1994-1997)  
NASA Mars Exploration Program Assessment Group (1999-2005)  
NASA Mars Science Working Group (1994-1996)

NASA Planetary Geology and Geophysics Review Panel (1989-1990); (1993-1995)  
NASA Earth Observing System Science Steering Committee (1985-1987)

### **Professional Societies**

American Geophysical Union  
American Astronomical Society, Division of Planetary Science  
Geological Society of America

### **Selected Honors and Awards**

Whipple Award, American Geophysical Union, 2018  
2016 Robert H. Goddard Honor Award, OSIRIS-REx Thermal Emission Spectrometer  
Distinguished Teaching Award, Arizona State University 2014  
Fellow, Geological Society of America, 2009  
G.K. Gilbert Award, Geological Society of America, 2008  
NASA Public Service Medal, 2005  
Fellow, American Geophysical Union, 2004  
NASA Exceptional Scientific Achievement Medal, 2003  
ASU College of Liberal Arts and Science Distinguished Faculty Award, 2002  
ASU Alumni Association Distinguished Faculty Award for Research, 1998  
ASU Liberal Arts and Sciences Alumni Association Outstanding Faculty Award, 1995  
23 NASA Group Achievement Awards, 1993-present

### **Selected Recent Publications**

Coles, K.S., Tanaka, K.L. and Christensen, P.R., (2019), The Atlas of Mars: *Mapping its Geography and Geology*. Cambridge University Press.  
Christensen, P. R., et al., (2018), The OSIRIS-REx Thermal Emission Spectrometer (OTES) Instrument, *Space Science Reviews*, 214(5), p.87.  
Salvatore, M. R., T. A. Goudge, M. S. Bramble, C. S. Edwards, J. L. Bandfield, E. S. Amador, J. F. Mustard, and P. R. Christensen, Bulk mineralogy of the NE Syrtis and Jezero crater regions of Mars derived through thermal infrared spectral analyses, *Icarus* 301 (2018): 76-96.  
Mitchell, J. L., and P.R.Christensen (2016), Recurring slope lineae and chlorides on the surface of Mars, *J. Geophys. Res.*, 121, doi:10.1002/2016JE005012.  
Salvatore, M. R., M. D. Kraft, C. S. Edwards, and P. R. Christensen (2016), The geologic history of Margaritifer basin, Mars, *J. Geophys. Res.*, DOI: 10.1002/2015JE004938.  
Klug-Boonstra, S., and P. R. Christensen (2013), Mars Student Imaging Project: Real research by secondary students, *Science*, 339, 920-921.  
Christensen, P. R., J. L. Bandfield, R. L. Fergason, V. E. Hamilton, and A. D. Rogers (2008), The Compositional Diversity and Physical Properties Mapped from the Mars Odyssey Thermal Emission Imaging System (THEMIS), in *The Martian Surface: Composition, Mineralogy, and Physical Properties*, edited by J. F. Bell, III, Cambridge University Press.  
Christensen, P. R., J. L. Bandfield, A. D. Rogers, T. D. Glotch, V. E. Hamilton, S. W. Ruff, and M. B. Wyatt (2008), Global Mineralogy Mapped from the Mars Global Surveyor Thermal Emission Spectrometer, in *The Martian Surface: Composition, Mineralogy, and Physical Properties*, edited by J. F. Bell, III, Cambridge University Press.  
Kieffer, H. H., P. R. Christensen, and T. N. Titus, CO<sub>2</sub> jets formed by sublimation beneath translucent slab ice in Mars' seasonal south polar ice cap, *Nature*, 442, 793-796, doi:10.1038/nature04945, 2006.