

11. Curriculum Vitae - PI And CO-I's

Cristina M. Dalle Ore

SETI Institute and NASA Ames Research Center
Moffett Field, CA 94035-1000
Ph: +1 650 604 6151; Fax: +1 650 604 6779
Email: Cristina.M.DalleOre@nasa.gov

Education

6/93	Ph.D. (Astronomy and Astrophysics), University of California at Santa Cruz
1983	Laurea (Astronomy), Padua University, Italy

Employment

1996-1997	Research Scientist, SETI Institute and NASA Ames Research Center.
1997-present	Principal Investigator, SETI Institute (NASA Ames Research Center contractor).
2007-2008	Lecturer, University of California at Santa Cruz

Research Interests

The main focus of my research is to help understand the current chemical distribution in the present solar system to trace its evolution. I am a spectroscopist by trade and in the last few years I perfected my technique in modeling reflectance spectra of a variety of icy bodies in the outer solar system. These include:

- the Saturn satellites, as understanding their surface composition will provide understanding on the origin of the reddening material that seems to be common to the entire outer solar system as well as shed light on the processes that are currently changing the surface of these bodies,
- the KBOs and centaurs as tracers of the dynamical evolution of the outer solar system,
- the asteroids also part of the dynamical evolution even though less affected by the giant planets migration.

Latest Main Publications

Composition of KBO (50000) Quaoar

C. Morea Dalle Ore, M.A. Barucci, J.P. Emery, D.P. Cruikshank, L.V. Dalle Ore, F. Merlin, A. Alvarez-Candal, C. de Bergh, D.E. Trilling, D. Perna, S. Fornasier, R.M.E. Mastrapa, E. Dotto, *A&A*, 501, 349, 2009.

Hydrocarbons on Saturn's satellites Iapetus and Phoebe

D.P. Cruikshank, E. Wegryn, C. M. Dalle Ore, R. H. Brown, J.-P. Bibring, B. J. Buratti, R. N. Clark, T. B. McCord, P. D. Nicholson, Y. J. Pendleton, T. C. Owen, G. Filacchione, A. Coradini, P. Cerroni, F. Capaccioni, R. Jaumann, R. M. Nelson, K. H. Baines, C. Sotin, G. Bellucci, M. Combes, Y. Langevin, B. Sicardy, D. L. Matson, V. Formisano, P. Drossart, V. Mennella, *Icarus*, 193, Issue 2, p. 334-343, 2008.

Ices on (90377) Sedna: confirmation and compositional constraints

J. P. Emery, C. M. Dalle Ore, D. P. Cruikshank, Y. R. Fernández, D. E. Trilling, J. A. Stansberry, *Astronomy and Astrophysics*, 466, Issue 1, 395-398, 2007

Composition of Titan's surface from Cassini VIMS

The Cassini VIMS Team, G. B. Hansen, B. J. Buratti, R. N. Clark D. P., Cruikshank, E. D'Aversa, C. A. Griffith, E. K. H. Baines, R. H. Brown, C. M. Dalle Ore, G. Filacchione, V. Formisano, C. A. Hibbitts, R. Jaumann, J. I. Lunine, R. M. Nelson, C. Sotin, *Planetary and Space Science*, 54, Issue 15, 1524-1539, 2006.

Is Sedna another Triton?

M. A. Barucci, D. P. Cruikshank, E. Dotto, F. Merlin, F. Poulet, C. Dalle Ore, S. Fornasier, C. de Bergh,
Astronomy and Astrophysics, 439, Issue 2, 2005, L1-L4

Tholins as coloring agents on outer Solar System bodies

D.P. Cruikshank, H. Imanaka, C.M. Dalle Ore,
Advances in Space Research, 36, Issue 2, 178-183, 2005.

Spectral Models of Kuiper Belt Objects and Centaurs

D. P. Cruikshank, Cristina M. Dalle Ore,
Earth, Moon, and Planets, v. 92, Issue 1, p. 315-330, 2003.

*Comparison between the Shkuratov and Hapke Scattering Theories for Solid Planetary Surfaces:
Application to the Surface Composition of Two Centaurs*

F. Poulet, J. N. Cuzzi, D. P. Cruikshank, T. Roush, C. M. Dalle Ore, Icarus, v.160, 313-324,
2002.

The 1.95-2.50 μ m Spectrum of J6 Himalia

Thomas R. Geballe, C. M. Dalle Ore, Dale P. Cruikshank, T. C. Owen, Icarus, v. 159, 542-544,
2002.

Search for the 3.4- μ m C-H Spectral Bands on Low-Albedo Asteroids

Dale P. Cruikshank, Thomas R. Geballe, Tobias C. Owen, Cristina M. Dalle Ore, Ted L. Roush,
Robert H. Brown, John H. Lewis, Icarus, v. 156, 434-441, 2002.

Constraints on the Composition of Trojan Asteroid 624 Hektor

Dale P. Cruikshank, Cristina M. Dalle Ore, Ted L. Roush, Thomas R. Geballe, Tobias C. Owen,
Catherine de Bergh, Michele D. Cash, William K. Hartmann. Icarus, 153,348-360, 2001.

Decoding the Domino: The Dark Side of Iapetus

Tobias C. Owen, Dale P. Cruikshank, C. M. Dalle Ore, T. R. Geballe, T. L. Roush, C. de Bergh,
Roland Meier, Yvonne J. Pendleton, Bishun N. Khare, Icarus, 149,160-172, 2001.

Water Ice on Triton

Dale P. Cruikshank, Bernard Schmitt, Ted L. Roush, Tobias C. Owen, Eric Quirico, Thomas R.
Geballe, Catherine de Bergh, Mary Jane Bartholomew, Cristina M. Dalle Ore, Sylvain Douté, Roland
Meier Icarus, 147, 309-316 , 2000.

NOTE: Detection of Water Ice on Saturn's Satellite Phoebe

T. C. Owen, D. P. Cruikshank, C. M. Dalle Ore, T. R. Geballe, T. L. Roush, C. de Bergh, Icarus,
139, 379-382, 1999.

The Composition of Centaur 5145 Pholus

D. P. Cruikshank, T. L. Roush, M. J. Bartholomew, T. R. Geballe, Y. J. Pendleton, S. M. White,
J. F. Bell, J. K. Davies, T. C. Owen, C. de Bergh, and 5 coauthors. Icarus, 135, 389-407, 1998.