
**S. MURTHY GUDIPATI - JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY**

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Related Experience Summary

In the past nearly 20 years Dr. Gudipati has been actively engaged in conducting research on the optical (VUV – NIR) and IR spectroscopy of cryogenic solids, laser-induced-fluorescence, and on the physics and chemistry of cryogenic (10 – 180 K) water-rich solar system ice analogs. The Co-I is one of the leading experts in the photochemistry and spectroscopy of organic and atmospheric molecules in cryogenic solids. His interests in chemical physics on one side and astrophysics on the other side uniquely place him in the field of laboratory astrophysics.

Employment History

2007-present: Principal Scientist, Planetary Sciences and Life Detection, JPL

2001-present: Institute for Physical Sciences & Technology, Univ. of Maryland at College Park, MD; and Visiting Scientist at NASA Ames Research Center, Moffett Field, CA

1990-2001: University of Cologne, Cologne, Germany

Education

1998: Habilitation (Tenure), Physical Chemistry, University of Cologne, Germany

1987: Ph. D., Physical Organic Chemistry, Indian Institute of Science, Bangalore, India

Professional Societies

Dr. Gudipati is a member of the American Astronomical Association, American Chemical Society, the American Geophysical Union and the Deutsche Bunsen-Gesellschaft. He has served as a reviewer for *Icarus*, *Astrophysical Journal*, *Astronomy and Astrophysics*, *Journal of Chemical Physics*, *Journal of Physical Chemistry*, *Chemical Physics Letters* and the *Journal of Luminescence* etc. He has given several invited lectures, colloquia and seminars at various Conferences, Universities and Institutions. He is a member of international steering committee of Gordon Research Conferences on Chemistry and Physics of Matrix-Isolated Species and a Member of international organizing committee of the International Conferences on Low-Temperature Chemistry and Matrix Isolation.

Awards and Honors

2002 NASA Group Achievement Award

1995 German Science Foundation Habilitation Fellowship

1987 Indian Institute of Science Best Thesis Award (Guha Medal)

Selected Relevant Publications

Charged Polycyclic Aromatic Hydrocarbon Clusters and the Galactic Extended Red Emission; Rhee, Y. M., Lee, T. J., Gudipati, M. S., Allamandola, L. J., and Head-Gordon, M.; *Proceedings of the National Academy of Sciences, USA* 104 (2007) 5274.

Double Ionization of Quaterylene (C₄₀H₂₀) in Water-ice at 20 K with Ly α (121.6 nm) Radiation; Gudipati, M. S, Allamandola, L.J.; *J. Phys. Chem.* 110 (2006) 9020
Luminescence from VUV Irradiated Cosmic Ice Analogs and Residues. Gudipati, M. S., Dworkin, J. P., Chillier, X. D. F., Allamandola, L. J. *Astrophys. J.* 253 (2003) 514.

Electronic spectrum of atomic sulfur in argon matrices in the vacuum ultraviolet region; Gudipati, M. S. and Klein, A. *Chem. Phys. Lett.* 344 (2001) 479

Temperature- and Viscosity Dependence of the Spin-directed Stereoselectivity of the Carbonyl-Alkene-Photocycloaddition; Griesbeck, A. G., Bondock, S., Gudipati, M. S.; *Angew. Chem. Int. Ed.* 40 (2001) 4684

New Assignment of the Electronically Excited States of Anthracene-9,10-endoperoxide and its Derivatives: A Critical Experimental and Theoretical Study; Klein, A., Kalb, M., and Gudipati, M. S.; *Journal of Physical Chemistry, section A.* 103 (1999) 3843.
