

Thursday, March 24, 2016
POSTER SESSION II: TITAN
6:00 p.m. Town Center Exhibit Area

[R627]

Royer E. M. Ajello J. M. West R. A. Bradley T. E. Holsclaw G. et al. **POSTER LOCATION #361**
[*Variations of the Titan Airglow with the Solar Zenith Angle*](#) [#2875]

In this work, we focus on the solar XUV photons as a main contribution to the Titan airglow and how they influence its intensity.

Kim J. R. Wan W. H. Kim Y. H. **POSTER LOCATION #362**
[*Reconstruction of Titan Topography Using CASSINI Radar Images and Generic Stereo Processor*](#) [#1411]

In this study, we tried to improve the coverage and the quality of Titan digital terrain model with a semiautomated stereo matcher and the generic sensor model.

Le Mouélic S. Cornet T. Rodriguez S. Sotin C. Barnes J. W. et al. **POSTER LOCATION #363**
[*Producing Seamless Global Mosaics of Titan with the VIMS Imaging Spectrometer*](#) [#2011]

We present global maps of the surface of Titan in several wavelengths, using the merging of 11 years of data acquired by the VIMS imaging spectrometer.

Dougherty A. Morris D. Chumsky R. **POSTER LOCATION #364**
[*Freezing of Methanol-Water Mixtures at High Pressure with Applications to Titan*](#) [#2167]

We report the liquidus and eutectic temperatures for a methanol-water solution at pressures from 5 to 400 MPa, with implications for Titan's ocean.

Farnsworth K. McMahon Z. Laxton D. **POSTER LOCATION #365**
 Chevrier V. Luspay-Kuti A. et al.
[*Experimental Study of Nitrogen Dissolution in Methane-Ethane Mixtures Under Titan Surface Conditions*](#) [#2380]

This study uses experimental analysis to determine the solubility of nitrogen in liquid hydrocarbons under Titan surface, cryogenic conditions.

Vu T. H. Munoz-Iglesias V. Mahjoub A. Choukroun M. **POSTER LOCATION #366**
[*Kinetics of Clathrate Hydrate Formation from Liquid Ethane Under Titan-Like Conditions*](#) [#2450]

Experimental evidence for rapid formation of ethane clathrate from direct contact of liquid ethane with water ice is presented via the use of Raman spectroscopy.

Munoz-Iglesias V. Vu T. H. Smythe W. Sotin C. Hodyss R. et al. **POSTER LOCATION #367**
[*Phase Behavior of Tetrahydrofuran Clathrates in Aqueous Ammonia Solutions*](#) [#2890]

Experimental determination of the effect of ammonia on stability of tetrahydrofuran clathrate hydrates.

Cornet T. Cordier D. Marounina N. Le Bahers T. Altobelli N. **POSTER LOCATION #368**
[*Constraining the Sources of Uncertainty of the RST Thermodynamic Model Applied to Titan*](#) [#1932]

We investigate the predictability of molar volume and solubility data relevant to Titan science in the frame of the Regular Solution Theory model.

Barnett K. N. Chevrier V. F. **POSTER LOCATION #369**
[*Solubility and Reactivity of Tholins in Liquid Hydrocarbons on Titan*](#) [#1814]

Acetonitrile is a chemical in Titan seas and lakes. Tholins produced in the atmosphere that have fallen to the surface may be dissolved by it.

Hollyday G. Malaska M. J. Hodyss R. Mitchell K. Lunine J. I. et al. **POSTER LOCATION #370**
[*Fitting Nitrogen Solubility Lab Data for Modeling Titan's Lakes and Seas*](#) [#2292]

Lab data on solubility of nitrogen in liquid methane and ethane have been compared and fitted to models of liquid solutions for application to Titan's seas.