

Accepted Manuscript

Dayside ionosphere of Titan : Impact on calculated plasma densities due to variations in the model parameters

Vrinda Mukundan, Anil Bhardwaj

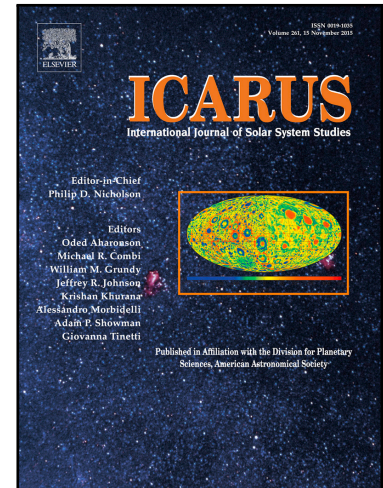
PII: S0019-1035(16)30849-1
DOI: [10.1016/j.icarus.2017.07.022](https://doi.org/10.1016/j.icarus.2017.07.022)
Reference: YICAR 12543

To appear in: *Icarus*

Received date: 24 December 2016
Revised date: 13 July 2017
Accepted date: 31 July 2017

Please cite this article as: Vrinda Mukundan, Anil Bhardwaj, Dayside ionosphere of Titan : Impact on calculated plasma densities due to variations in the model parameters, *Icarus* (2017), doi: [10.1016/j.icarus.2017.07.022](https://doi.org/10.1016/j.icarus.2017.07.022)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Highlights

- A one dimensional photochemical model is developed for the calculation of density of ions and electron in the dayside ionosphere of Titan.
- The calculated electron density is about a factor of 2 to 3 larger than the Cassini measurement.
- A detailed assessment of the model parameters affecting the production and loss of ions is conducted.
- Model calculations suggest that a more significant role is played by the loss processes, rather than the production processes, in causing the disagreement between modeled and observed electron density.

Download English Version:

<https://daneshyari.com/en/article/5487226>

Download Persian Version:

<https://daneshyari.com/article/5487226>

[Daneshyari.com](https://daneshyari.com)