

## Titan Photochemistry 1974-2014

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### Abstract

It has been 40 years since I published the first paper on Titan photochemistry (Strobel, Icarus, 21, 466-470, 1974) and pointed out the fundamental difference between the giant planets and Titan. Namely, that unlike the giant planets, light constituents, principally H and H<sub>2</sub>, can readily escape from the atmosphere of Titan leading to irreversible loss of CH<sub>4</sub> from photolysis and a requirement for replenishment by outgassing to maintain a stable presence in the atmosphere on timescales exceeding 50 MY. Since then we have had the Voyager Mission and now the on-going Cassini Huygens Mission plus ground-based telescope observations all contributing to our knowledge about the fascinating photochemical processes on Titan. The talk will finish with an analysis of where we are in our understanding and the outstanding issues that still need to be resolved.



## 5. Equations

Below, you will find examples of two equations. You should use an equation editor of your word-processing program in order to include your equation(s). The equation number should be placed at the right side of the column and all equations should be consecutively numbered.

$$a^2 + b^2 = c^2 \quad (1)$$

$$E = m \cdot c^2 \quad (2)$$

## 6. Summary and Conclusions

After having finished your paper in your word-processing program, please create a respective pdf file out of the document. The correct page settings of 237 (height) x 180 (width) mm are included in the template document. **Please make sure that the generated pdf file actually has a page size of 237 x 180 mm.** This is the only way to guarantee the proper inclusion of your paper in the Copernicus Office database. Please note that you are asked to upload a pdf file during the abstract submission in Copernicus Office. No other file type than .pdf is accepted for the file upload. The actual citation header will be added automatically!

## Acknowledgements

The Acknowledgements section should not be numbered. Here, you may include all persons or institutions which you would like to thank. We recommend that the abstract is carefully compiled and thoroughly checked, in particular with regard to the list of authors, **before** submission.

## References

[1] Author, A., Author, B., and Author, C.: First example of a cited article title, First Example Journal, Vol. 1, pp. 1-100, 1999.

[2] Author, D. and Author, E.: Second example of a cited book, Example Publishing House, 2000.

[3] Author, F.: Third example of a cited conference paper, The Great Science Conference, 1-7 February 2001, Sciencetown, Sciencecountry, 2001.