

## **An analytic model of comet ionosphere chemistry**

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### **Abstract**

We present an alternative approach for modeling ion-neutral chemistry in the inner coma of a low to moderately active comet [1]. The new model is analytic in its nature. Closed-form expressions to calculate fractional ion number densities as a function of cometocentric distance and activity level are presented. Advantages and limitations of the new method compared with the more standard approach of cometary ionosphere chemical modeling will be discussed.

### **References**

[1] Vigren, E., Analytic model of comet ionosphere chemistry, *A&A* in print.