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# Estimate Total Number of the Earth Atmospheric Particle with Standard Atmosphere Model

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Abstract: The total number of atmospheric particle (AP) is an important datum for planetary science and geoscience. Estimating entire AP number is also a familiar question in general physics. With standard atmosphere model, considering the number difference of AP caused by rough and uneven in the earth surface below, the sum of dry clean atmosphere particle is $1.06962 \times 10^{44}$. So the whole number of AP including water vapor is $1.0740 \times 10^{44}$. The rough estimation for the total number of AP on other planets (or satellites) in condensed state is also discussed on the base of it.

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Key words: planetary atmosphere, earth atmosphere, neutral atmosphere, total number of atmospheric particle, standard atmosphere model, effect of uneven in the earth surface, estimation

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