

The simulation of the Mercury sodium atmosphere

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Neutral sodium, one of the main elements of Mercury's atmosphere, flow toward anti-sunward. In recent years, ground based observations proved that the tail of Mercury's atmosphere reaches about 1000 times of Mercury radius. Current theories can't explain the formation of such a long tail. We found that the velocity of sodium atoms gives large effect on the length of the tail. After some simulations, we have gotten a picture of about 2 times longer tail than conventional one.