



Polarization of Sodium Na emission lines in Mercury's exosphere

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Mercury's exosphere scatters solar light. Sodium atoms Na are particularly effective scatterers and the resulting D_1 and D_2 emission lines around 589 nm have often been used to map the exosphere and its dynamics. As any scattering process, the emitted light is linearly polarized. Following observational campaigns in 2010 with the solar telescope THEMIS (Tenerife), this polarization was measured as well as its variations along the orbit. Currently, the sensitivity of this signal to the magnetic field of Mercury through the Hanle effect is being explored, which could give new insight on the planet's magnetic environment.