

Interactive comment on “Temperature lidar measurements from 1 to 105 km altitude using resonance, Rayleigh, and Rotational Raman scattering” by M. Alpers et al.

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The comment on the requirement of diurnal measurements for planetary wave and tide studies is correct. As stated in the outlook section of the paper, the described lidar represents the current technological possibilities for vertical continuous profiles and describes only the first step on the way to a full daytime temperature lidar system. The daytime possibilities of current lidars have been acknowledged. Future technological work at the IAP Kühlungsborn will consolidate the Resonance daytime technique and new technological daytime capabilities of the Rayleigh and the Rotational Raman methods will be tested (e.g. reduction of field of view, enhancement of laser power by higher laser pulse rates and/or higher pulse energies using diode pumped laser.). The aim of the current paper is the demonstration of the successful combination of the three described lidar temperature methods.

Interactive comment on Atmos. Chem. Phys. Discuss., 4, 923, 2004.

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