EPSC Abstracts,
Vol. 2, EPSC2007-A-00098, 2007
European Planetary Science Congress 2007

Towards a spectral catalogue of terrestrial exoplanets

H. Rauer (1,2), L. Grenfell (1), P. Hedelt (1), B. Stracke (1), R. Titz (1), P. von Paris (1)

(1) Institut für Planetenforschung, Deutsches Zentrum für Luft- und Raumfahrt (DLR), (2) Zentrum für Astronomie & Astrophysik, Technische Universität Berlin (TUB)

The number of detections of terrestrial extrasolar planets is expected to increase in the near future with space missions like CoRoT and Kepler. Missions are planned to further characterise these planets via their spectral appearance (e.g. Darwin). At present, the composition and temperature-pressure profiles of such planets are unknown and predictions for the feasability of such measurements rely on extrapolation from Earth's atmosphere.

We present here simulated spectra of a selection of hypothetical terrestrial exoplanets as a start towards a cataloge of typical spectral signatures corresponding to types of terrstrial atmospheres.