

Home

Online Library ACP

- ▣ Recent Final Revised Papers
- ▣ [Volumes and Issues](#)
- ▣ Special Issues
- ▣ Library Search
- ▣ Title and Author Search

Online Library ACPD

Alerts & RSS Feeds

General Information

Submission

Review

Production

Subscription

Comment on a Paper

Impact
Factor
4.865

ISI
indexed



- ▣ [Volumes and Issues](#)
- ▣ [Contents of Issue 12](#)
- ▣ [Special Issue](#)

Atmos. Chem. Phys., 6, 4617-4632, 2006

www.atmos-chem-phys.net/6/4617/2006/

© Author(s) 2006. This work is licensed under a Creative Commons License.

Technical Note: An implementation of the dry removal processes DRY DEPosition and SEDImentation in the Modular Earth Submodel System (MESSy)

A. Kerkweg, J. Buchholz, L. Ganzeveld, A. Pozzer, H. Tost, and P. Jöckel
Air Chemistry Department, Max-Planck Institute of Chemistry, P.O. Box 3060,
55020 Mainz, Germany

Abstract. We present the submodels DRYDEP and SEDI for the Modular Earth Submodel System (MESSy). Dry deposition of gases and aerosols is calculated within DRYDEP, whereas SEDI deals with aerosol particle sedimentation. Dry deposition velocities depend on the near-surface turbulence and the physical and chemical properties of the surface cover (e.g. the roughness length, soil pH or leaf stomatal exchange). The dry deposition algorithm used in DRYDEP is based on the big leaf approach and is described in detail within this Technical Note. The sedimentation submodel SEDI contains two sedimentation schemes: a simple upwind zeroth order scheme and a first order approach.

- ▣ [Final Revised Paper](#) (PDF, 2493 KB)
- ▣ [Discussion Paper](#) (ACPD)

Citation: Kerkweg, A., Buchholz, J., Ganzeveld, L., Pozzer, A., Tost, H., and Jöckel, P.: Technical Note: An implementation of the dry removal processes DRY DEPosition and SEDImentation in the Modular Earth Submodel System (MESSy), *Atmos. Chem. Phys.*, 6, 4617-4632, 2006. ▣ [Bibtex](#) ▣ [EndNote](#) ▣ [Reference Manager](#)



Search ACP

Library Search

Author Search

News

- ▣ [Sister Journals AMT & GMD](#)
- ▣ [Financial Support for Authors](#)
- ▣ [Journal Impact Factor](#)
- ▣ [Public Relations & Background Information](#)

Recent Papers

01 | ACPD, 16 Jan 2009:
Impact of climate change on photochemical air pollution in southern California

02 | ACPD, 16 Jan 2009:
Peroxy radical observations over West Africa during the AMMA 2006 campaign: Photochemical activity in episodes of formation of convective systems on the basis of radical measurements

03 | ACPD, 16 Jan 2009:
The time evolution of aerosol size distribution over the Mexico City plateau