

BASIC PARAMETERS OF THE PHASE TRANSFER FOR MODELLING HETEROGENEOUS CHEMISTRY IN THE ATMOSPHERE

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Laboratory measurements of heterogeneous processes can meet atmospheric conditions only to a limited extent due to the complexity of meteorological situations. Therefore, the uptake coefficient has to be calculated according to the specific conditions of the atmosphere which should be simulated. To do so, the basic parameters for the transfer from the gas phase to the aerosol must be known. In an extended critical review of the literature the basic parameters for a number of phase transfer processes had been extracted from measured uptake coefficients. Among others, the mass accommodation coefficients, the Henry constants, and the diffusion coefficients in condensed matter could be determined as a function of the temperature. Some examples of the relevance of heterogeneous processes for atmospheric chemistry are presented alongside with a list of the determined parameters.