



## Supplement of

## Optimized step size control within the Rosenbrock solvers for stiff chemical ordinary differential equation systems in KPP version 2.2.3\_rs4

Raphael Dreger et al.

Correspondence to: Raphael Dreger (r.dreger@fz-juelich.de) and Domenico Taraborrelli (d.taraborrelli@fz-juelich.de)

The copyright of individual parts of the supplement might differ from the article licence.

## S1 Error analysis



Figure S1. Relative differences of the mixing ratios between the H211b and the reference one-year simulation for  $NO_3^-$  and  $Cl^-$  in accumulation aerosol mode, coarse aerosol mode and cloud droplets.



**Figure S2.** Relative differences of the mixing ratios between the H211b and the reference one-year simulation for  $SO_4^{2-}$  and  $NH_4^+$  in accumulation aerosol mode, coarse aerosol mode and cloud droplets.