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Subgrid-scale aerosol–cloud interaction in the atmospheric chemistry model CMA_Meso5.1/CUACE and its impacts on mesoscale meteorology prediction

Wenjie Zhang et al.

Correspondence to: Hong Wang (wangh@cma.gov.cn)

Supplement

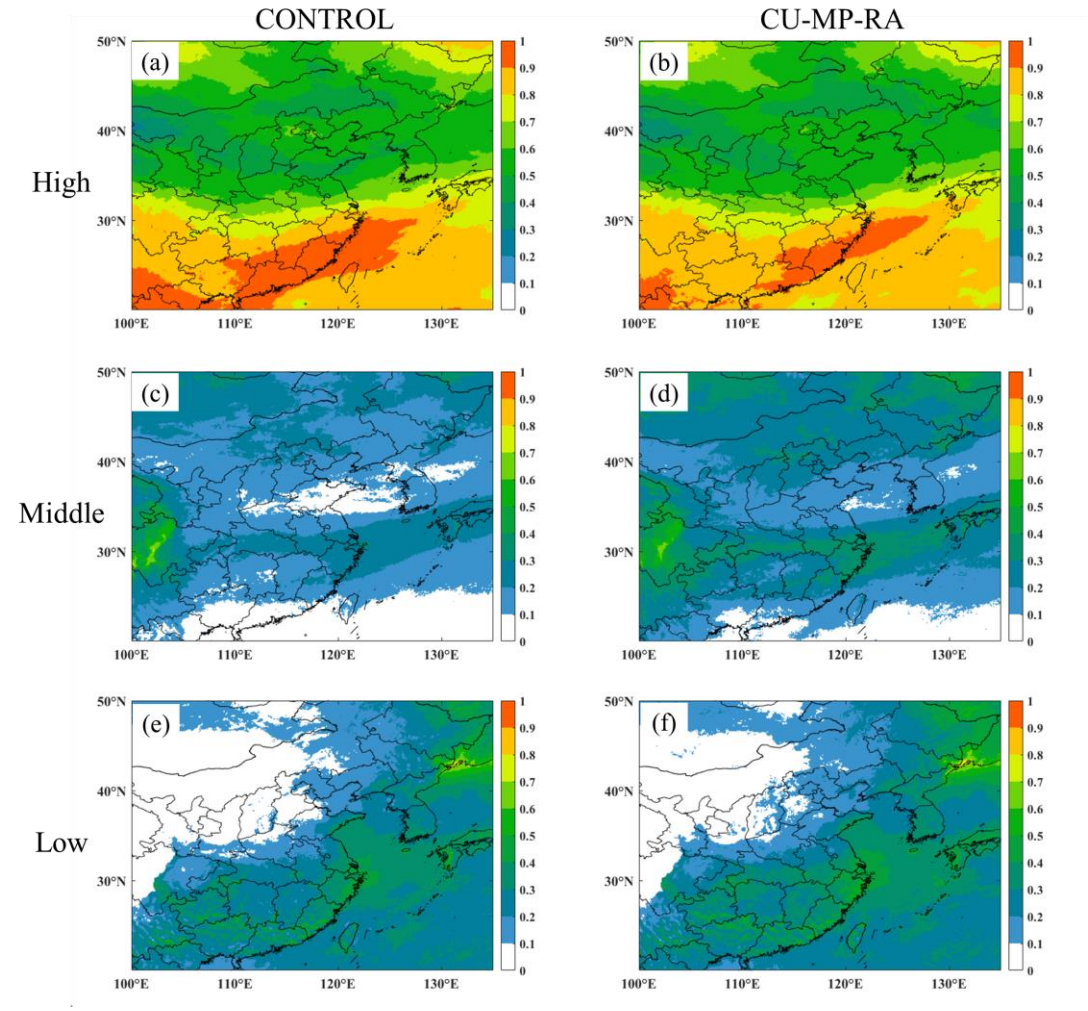

Figure S1. The spatial distribution of high (a-b), middle (c-d), and low (e-f) cloud fraction from the CONTROL (left column) and CU-MP-RA experiment (right column).

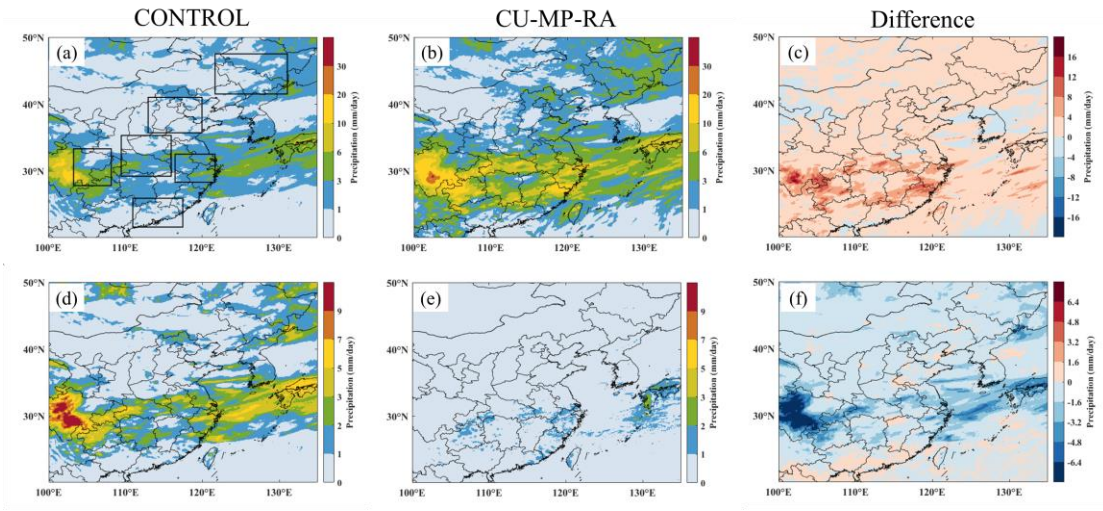

Figure S2. The spatial distribution of grid-scale (a-c) and subgrid-scale (d-f) precipitation from the

CONTROL (left column), the CU-MP-RA experiment (middle column), and the difference between the CU-MP-RA and CONTROL experiment (right column).

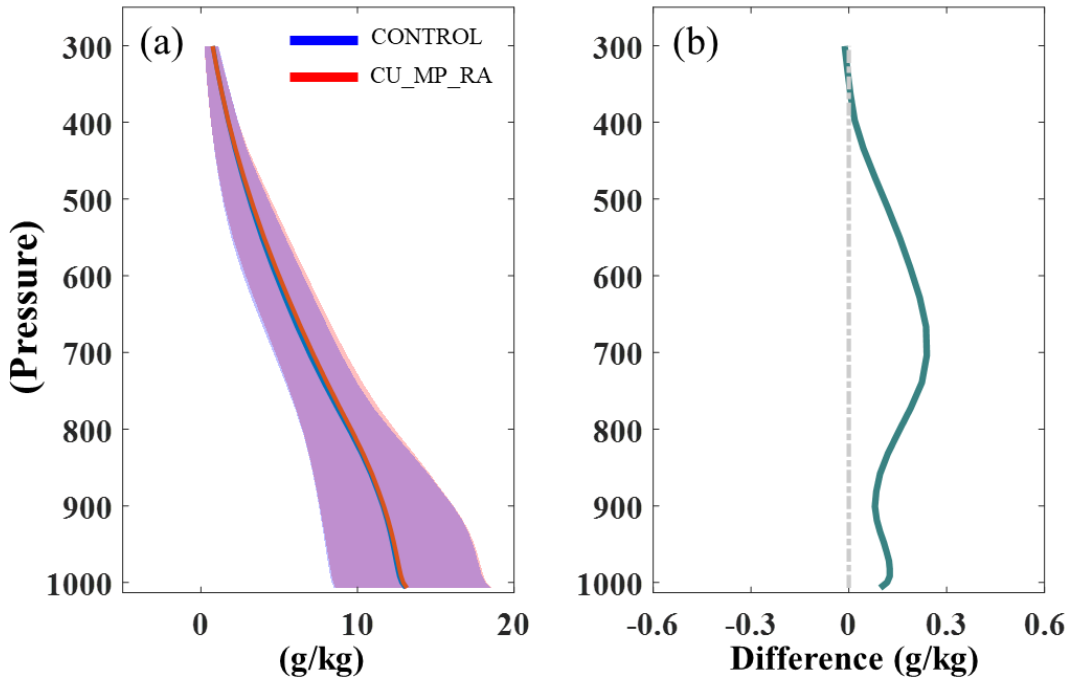

Figure S3: (a) The vertical profiles of water vapor mixing ratio in the Control and CU_MP_RA experiment. (b) The diffence of vertical water vapor mixing ratio between the Control and CU_MP_RA experiment. In the (a), the shadings are the spread of water vapor mixing ratio in six regions, and the solid lines are their average results.

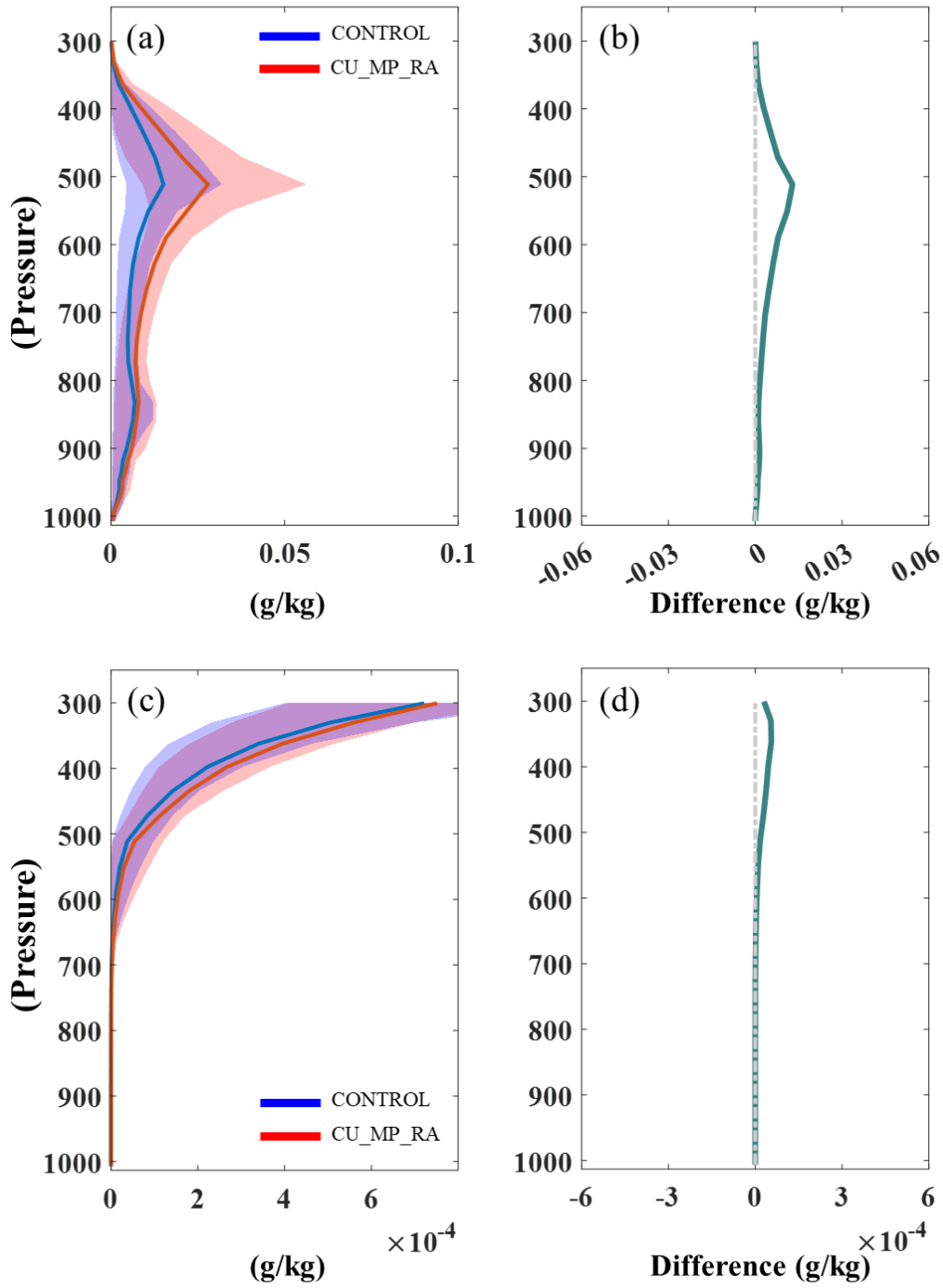

Figure S4: Same with Figure S3, but for cloud water (a and b) and ice (c and d) mixing ratio at grid-scale.