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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Large-scale ion generation for precipitation of atmospheric aerosols" *by* Shaoxiang Ma et al.

Shaoxiang Ma et al.

liudw@hust.edu.cn

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SC1: 'Figure 1(e) only shows 45 corona discharge points on the 1m long wire electrode. How did author estimate the large corona discharge system has 300,000 discharge points?',

AnswerïijŽFigure 1 (e) shows there are more than 45 corona discharge points along the 1 m long wire electrode when the applied voltage is -40 kV, and the average distance between corona discharge points is only 2.5 cm. Actually, for our large corona discharge system with the 7.2 km long wire electrode and applied voltage of -90 kV, the number of the corona discharge points is expected to be at least 3.2×10ˆ5 (45 1/m ×7.2×10ˆ3m). The mutual interference between wire electrodes is also avoided by the

horizontal distance of 0.5m and the vertical distance of 5 m between the wires.

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