

# Development of the Lightning and Airglow Camera onboard PLANET-C - present state

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We are developing a lightning and airglow camera (LAC) on board the Japanese Venus mission PLANET-C. The LAC is a high-speed imaging sensor and measures lightning flashes and airglow emissions on the Venus nightside disk. The main target of LAC is to settle a controversy on the lightning of Venus. In addition, continuous observations of nightglow provide us information on the global circulation in the Venus lower thermosphere.

The LAC has a field of view (FOV) of 12 degrees in the full angle. As a candidate of the detector of LAC, we are examining a multi-anode micro-channel plate (MCP). This detector has 8 by 8 matrix of 2-mm square pixels as covering the circular FOV of LAC, with 44 pixels.

We performed a 100- and 6-MeV proton radiation test to check the radiation-resistance of MCP. We report the present situation of development of LAC, including the results of these proton radiation tests.