

A PROBING RADAR DESIGNED FOR SIMULATION OF
RADAR ECHO OF A METEORITE WITHIN THE
ICE SHEET OF THE ANTARCTIC
CONTINENT (III) (ABSTRACT)

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We have succeeded in the simulation of a probing radar echo from meteorites within the ice sheet of the Antarctic Continent, and obtained the following.

1) On the region for the changing density profile, we did not obtain the probing radar echo from meteorites within the ice sheet.

2) As the probing radar echoes are changed by the meteorite size, we had extreme difficulty in selecting the most useful frequency for the investigation of meteorites. So, when the equivalent radii of meteorites are selected to be 1, 10, and 25 (cm), we have simulated to the radar echo from meteorites within the ice sheet. But, as radar echoes from meteorites there are often masked by echo signals from within the ice sheet, we have found the conditions that we can be detected the echo signals from meteorites.

3) When we have estimated for the number and radii of meteorites within the ice sheet, if can be observed by multitude radar frequencies, we can be estimated for it by the analysis of radar echoes.

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