Deep structure and physical properties of continental lithosphere in the collisional zone of Supercontinent: Gondwana

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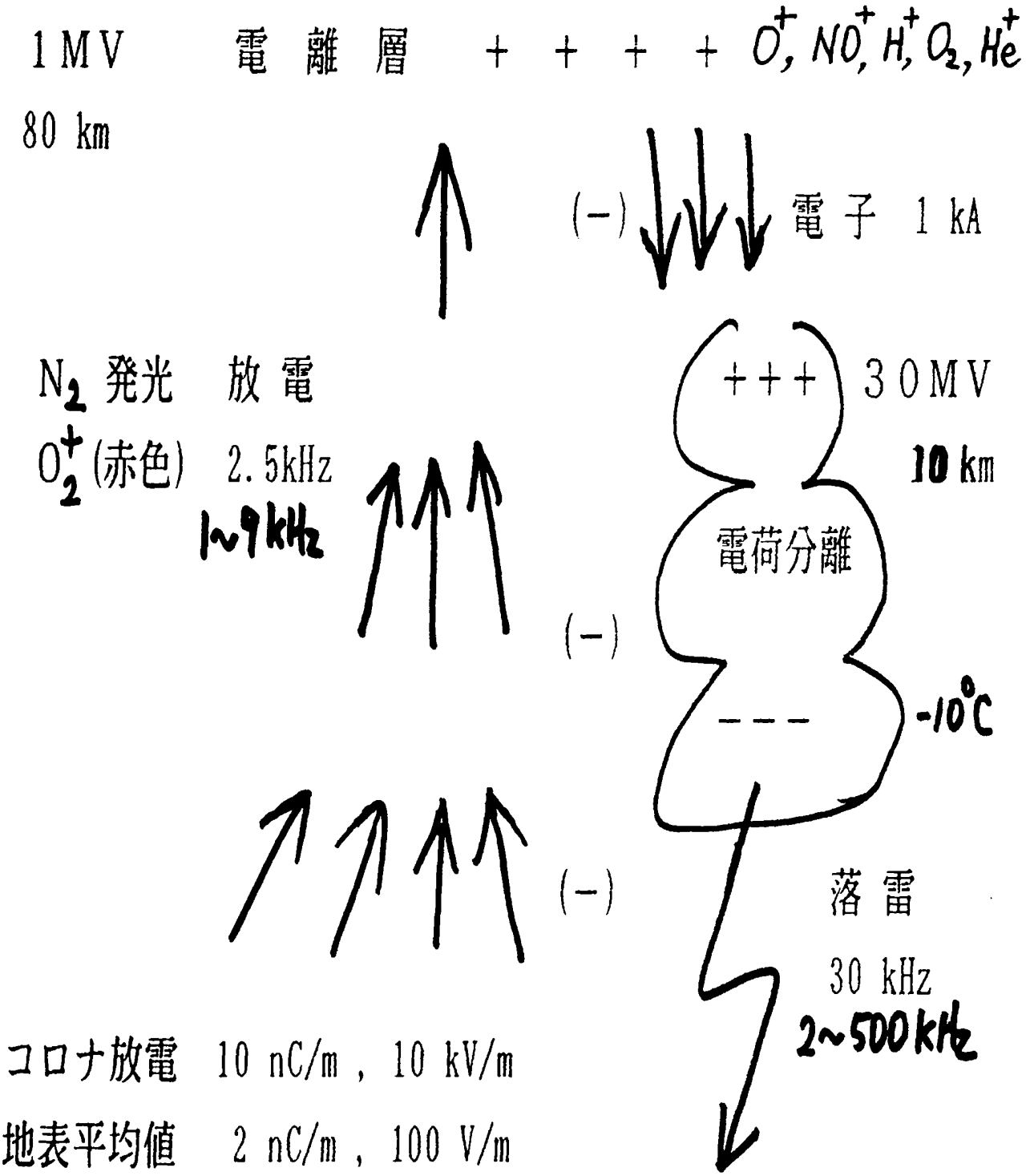
Lithospheric evolution, deep structure and physical properties of the continental lithosphere of East Antarctic shield are investigated regarding the formation process of a paleo supercontinent: Gondwana. 'Structure and Evolution of the East Antarctic Lithosphere (SEAL)' project have been caring out in a framework of the Japanese Antarctic Research Expedition in recent few years. Particularly, geological surveys and deep seismic refraction/wide angle reflection probing have been conducted in the Lutzow-Holm Complex,as a suture zone between the Western Enderby Land and the Eastern Dronning Maud Land. This presentation is focused on the lithospheric structure and evolution process of the Lutzow-Holm Complex, as an example of the continent-continent collisional zone during the formation of Gondwanaland. Several seismological evidence by both active and passive source studies are summarized in relation to the experimental data for high-grade metamorphic rocks.

大気中の負電流環


1MV
電離層 + + + + $O^+, NO^+, H^+, O_2, He^+$
80 km
(−)
電子 1 kA
N_2 発光 放電
O_2^+ (赤色) 2.5kHz
1~9kHz
+++
30MV
10 km
電荷分離
(−)

-10°C
(−)
落雷
30 kHz
2~500kHz
コロナ放電 10 nC/m , 10 kV/m
地表平均値 2 nC/m , 100 V/m