

Anisotropy of Electrical Conductivity beneath the East Pacific Rise as inferred from the MELT experiment

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We developed a new 2-D inversion code to study anisotropy of electrical conductivity. In our inversion, The degree of the anisotropy is constrained by ABIC minimization. Our inversion code was applied to seafloor MT data set obtained by the MELT (Mantle ELeCtromagnetic and Tomography) experiment for 2-D anisotropic conductivity modeling across the East Pacific Rise(EPR). Anisotropic mantle structure was found beneath the eastern side of EPR. However, it is difficult to explain such anisotropy by lattice preferred orientation of typical mantle minerals.

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