

Deep seismic structure of the Precambrian cratons - Global review -

Masaki Kanao[1], Masahiro Ishikawa[2]

[1] NIPR, [2] Graduate School Environment & Information Sci, Yokohama National Univ

http://geotgx.nipr.ac.jp/~kanao/seal_1

Deep seismic structure of the Precambrian cratons is summarized relating to the continental growth process in the Earth's evolution. Several interesting features within the crust and the lithospheric mantle have been found in deep seismic surveys of the world. For instance, some multi-compression and delaminated structure are identified in the recent LITHOPRPBE/SNORCLE transect in the Canadian shield. A significant relationship between the hot super plume / rift system and seismic tomographic model / receiver function velocity discontinuities by recent developing IRIS/PASSCAL broadband arrays beneath the East African Tanzania craton. In this presentation, structural variations between several cratons of the global distributed continents will be reviewed to provide the exact relationship between the continental evolution process and the environmental variations of the Earth's surface layers.