The OCT-type ophiolite recognized from the Bangong-Nujiang Suture Zone, central Tibet

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Shiquanhe-Namco Ophiolitic Belt (SNOB), a southern branch of the Bangong-Nujiang Suture Zone distributes along the northern edge of Lhasa terrane, Tibet. Yunzhug ophiolite located in the middle sector of the SNOB, generally interpreted as remnants of the Meso-Tethyan Oceanic lithosphere; howere, detailed study on it reveals that it composed of ultra-depleted peridotites of subcontinental origin, MORB-like lavas and rare gabbroic intrusives, together with continental crust bodies exhumed during the rifting phases preceding the oceanization. The peridotites include major harzburgites and minor dunites. The olivine in dunite has the highest Fo value, up to 93.5, and in the harzburgite divided into three groups. Group I, included in the Opx phenocryst, shows higher Fo 92.5 close to it in the dunite. Group II, major phase in the peridotites, has medium Fo value between 91.5 and 92.7. Group III, as cluster with fine grains of Cpx and Spl, has the lowest Fo value, mainly at 91.5 (Fig.1), the $Cr^{\#}$ value of Spl is congrously lower than 0.5 with MOR-like features. The chemical composition of Opx is consistent with that from the on-craton garnet lherlite (Fig.2). The high $Mg^{\#}$ value and low $^{187}Os/^{188}Os$ (0.11301 ~ 0.12374, corresponding T_{RD} = 2.2Ga ~ 0.8Ga) of whole rock indicate peridotites are originated from ancient subcontinental lithospheric mantle and then oceanization at the early stage of Wilson cycles, finally preserved well on the passive continental margin.

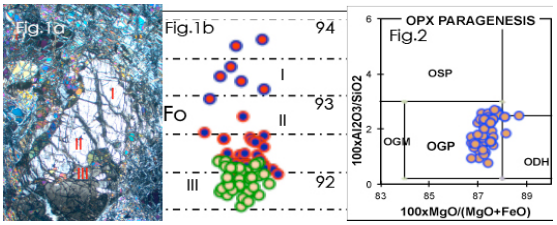

Fig.1 Lithofacies characteristics of harzburgite; Fig.2 Composition of Opx

OSP: Opx from Spinel Lherzolit; **OGP**: Opx from "on-craton" Garnet Lherzolit; **OGM**: Opx from Megacryst; **ODH**: Opx from Diamondiferous Harzburgite

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