Modification from abyssal to arc mantle in the Northern Oman ophiolite: Implications from clinopyroxene geochemistry of peridotite

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In situ ion microprobe analysis of trace and rare earth elements in discrete diopsides in the mantle peridotite from Oman ophiolite shows that these samples have a wide range of trace element contents close to the total range found for not only the entire abyssal peridotites, but also arc peridotite xenoliths. It is that at first,the peridotite were formed under the mid-ocean-ridge melting condition, and then, geochemically modified under wedgemantle condition.