The occurrence and origin of orthopyroxene-plagioclase veins in dunite xenoliths from Karatsu-Takashima, Northern Kyushu, Japan

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Dunite xenoliths in alkali basalts from Karatsu-Takashima are cut by orthopyroxene-plaioclase veins. The orthopyroxene-plaioclase veins are composed mainly of orthopyroxene and plagioclase, with or without small amount of Al-spinel, calcite and olivine. Dunite generally displays a decrease of Fo content in olivine and Cr#(=Cr/(Cr+Al) atomic ratio) in spinel toward the contact with the vein. Orthopyroxenes in vein have low Cr and high Al contents. The texural characteritics possibly indicate that the orthopyoxene-plagioclase veins were precipitated from a SiO2-oversaturated melt derived from slab.

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