

**CHARACTERISTICS OF
SUBCONTINENTAL
LITHOSPHERIC MANTLE
BENEATH IA BANG, PLEIKU,
VIETNAM: EVIDENCE FROM
PERIDOTITE XENOLITHS**

T.C. NGUYEN¹, Y. KIL¹

¹Department of Energy and Resources Engineering,
Chonnam National University, Gwangju 500-757, Republic
of Korea. (*correspondence: ykil@jnu.ac.kr)

Abstract: The subcontinental lithospheric mantle (SCLM) beneath Ia Bang, Pleiku, south-central Vietnam consisted of fertile lherzolites and refractory harzburgites. The textures of peridotite xenolith are varied from protogranular through porphyroclastic to equigranular. Correlations of modal and chemical compositions indicated that the xenoliths had experienced various degrees of fractional melting. The presences of secondary clinopyroxenes and Na-alkali silicate glasses suggest a reaction of the peridotites and host rock alkali basalt during transport to the surface. The increase of incompatible elements, coupled with the correlation of $(La/Yb)_n$ vs. Ti/Eu , imply that the SCLM beneath Ia Bang was modified by carbonatite and silicate metasomatism. The mantle xenoliths were identified to be in equilibrium temperature of 841-1131°C at 36-50km in the uppermost mantle before entrapped by alkali basalt. The SCLM was believed to be experienced a thinning process caused by an interaction of asthenosphere and lithosphere during the Phanerozoic time

Key words: Ia Bang, lithospheric mantle, spinel peridotite, metasomatism