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Geochemical implications for post-adakitic magmatism in
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**Semi-adakitic Magmatism of the Satkatbong Diorite, South Korea:
Geochemical Implications for Post-adakitic Magmatism in
Southeastern Eurasia**

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The Satkatbong diorite (190 Ma) and the older Yeongdeok granite (250 Ma) in the Yeongnam massif, which is part of the southeastern margin of the Eurasian plate, are affected by a subduction system that is associated with the Izanagi and Farallon plates. The Satkatbong diorite is characterized by its abundant mafic magmatic enclaves (MMEs), mantle affinity, and intermediate adakitic Sr/Y vs. Y signature, whereas the Yeongdeok granite is distinctly adakitic and felsic and contains few MMEs. These differences in adakitic features might be due to differences in the lithospheric mantle material and/or different mafic MME sources. The results of rare earth element (REE) analyses and newly proposed Sr/La modeling in this study indicate that these two plutons were both generated by slab-mantle mixing and continental assimilation, whereas the Satkatbong diorite was additionally affected by the injection of a mafic source of MMEs, which “diluted” its adakitic chemistry. The young and hot subducting ridge passing toward the northeast due to the oblique subduction of the Izanagi and Farallon plates during the Early Mesozoic could have given rise to slab melting

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