Gp-003 Room: C402 Time: June 6 14:00-14:15

Origin of shoshonites from the northwestern Wabigoon belt (~2.7 Ga), Superior Province, Canadian Shield

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Shoshonites from the Shoal Lake - Lake of the Woods area, the latest Archean Wabigoon Belt, Canadian Shield, bear incompatible element characteristics similar to a suite of calc-alkali volcanic rocks in the same area. The latter rocks appear to be Archean equivalents of Cenozoic adakites. The juxtaposition of these two groups of rocks lead us to consider that the shoshonite magmas were formed by partial melting of mantle sources enriched by the contemporaneous adakitic magmas. Results of batch melting model calculations support this scenario. This study has been done as a collaborative study with Dr. A.M. Goodwin, University of Toronto.