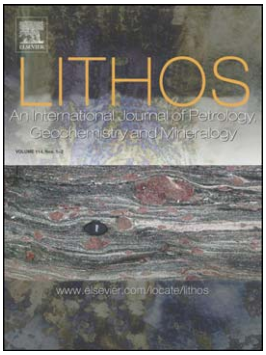

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Post-collisional high-Mg granitoids from the Paleoproterozoic East Sarmatian Orogen (East European Craton): evidence for crust-mantle interaction

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Abstract. The East Sarmatian Orogen (ESO) is located along the southwestern domain of the East European Craton and occupies a key tectonic link between the Sarmatian and Volgo-Uralian domains. Here we investigate the Paleoproterozoic Novaya Melovatka pluton and its mafic-ultramafic xenoliths to gain insights into the role of interaction between intermediate–felsic crustal melt with mantle rocks as a mechanism for the generation of high-Mg granitoids at crustal pressures. The pluton is composed of biotite-orthopyroxene quartz dioritic and monzodioritic porphyrites (Phase 1) and medium-grained biotite-amphibole quartz diorite, tonalite and