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The problem of the age and structural position of the Blyb metamorphic complex (Fore Range zone, Great Caucasus) granitoids.

Vladimir Kamzolkin (1), Anton Latyshev (1,2), and Stanislav Ivanov (1)

(1) Schmidt Institute of Physics of the Earth (IPE) RAS, Moscow, Russian Federation (vkamzolkin@gmail.com), (2) Lomonosov Moscow State University, Moscow, Russian Federation

The Blyb metamorphic complex (BMC) of the Fore Range zone is one of the most high-grade metamorphosed element of the Great Caucasus fold belt. Determination of the timing and the mechanism of formation of the Fore Range fold-thrust structures are not possible without investigation of the BMC located at the basement of its section. At the same time, the conceptions about its structure and age are outdated and need revision. Somin (2011) determined the age of the protolith and metamorphism of the Blyb complex as the Late Devonian - Early Carboniferous. We have recently shown that the BMC has not the dome, as previously thought, but nappe structure (Vidjapin, Kamzolkin, 2015), and is metamorphically coherent with the peak metamorphism pressures up to 22 kbar (Kamzolkin et al., 2015; Konilov et al., 2013). Considering the age and structure of the Blyb complex it is necessary to revise the age of granitoid intrusions and their relations with gneisses and schists, which constitute the main part of the section of the complex. Most authors (Gamkrelidze, Shengelia, 2007; Lavrischev, 2002; Baranov, 1967) adheres to Early Paleozoic age of intrusives, which is doubtful, considering the younger age of metamorphic rocks. We suppose, that the intrusive bodies broke through a BMC nappe structure during the exhumation of the complex (Perchuk, 1991) at the Devonian - Carboniferous boundary. Seemingly, the massive monzodiorites body (Lavrischev, 2002), intruding garnet-muscovite schists and amphibolite gneisses of the Blyb complex and cut by the Main Caucasian fault (MCF), are younger. Given the timing of termination of the MCF movement activity as the Middle Jurassic (Greater Caucasus..., 2005), their age should be in the Early Carboniferous - Middle Jurassic interval. At the same time, on the modern geological map (Lavrischev, 2002) monzodiorites body is assigned to the Middle Paleozoic. The study of the BMC granitoids and monzodiorites will help in determining of the mechanism and age of exhumation of the Blyb metamorphic complex high-pressure rocks.
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