



Siberian Traps: long and episodic?

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Siberian Traps province was discovered over than 150 years ago by Alexander Czekanowski and extensively studied in the second half of the XX Century by Soviet geological survey. Accounting for the size ($7 \times 10^6 \text{ km}^2$) and volume ($4 \times 10^6 \text{ km}^3$) of the Siberian Traps, fossils in sediments and obsolete (for today) K-Ar ages the duration of the Siberian Traps magmatism was considered to be up to a hundred of million years confined mainly to latest Permian and entire Triassic. International collaboration for the Siberian Traps studies started in the late XX Century. In particular, it brought new possibilities for measuring precise age and duration of the Siberian Traps magmatism. For example, it was proven that thick lava strata in the Noril'sk and adjacent northern territories were accumulated in less than 1 million years at the Permian-Triassic boundary. Was the magmatism of the whole Siberian Traps province coeval with the Noril'sk event? Was the Permo-Triassic event the only voluminous episode of magmatism? In this presentation we provide our new $40\text{Ar}/39\text{Ar}$ data for the Putorana plateau and Angara-Taseevskaya syncline, and review geologic, biostratigraphic, geochronologic and paleomag data for various regions to show that the overall duration of the Siberian Traps magmatism was from the Late Permian to the Late Triassic and that the magmatism was probably episodic. Thus, new efforts are required to understand this enormous igneous province; cause(s) of its origin, metallogeny and impact on the biosphere. We show that the Tunguska syncline is the key region for study. Supported by RFBR 08-05-00642 and 08-05-98104.