based on their original geodynamic setting and further tectonometamorphic evolution, belong to two essential types: (1) material of the subducted lithospheric plate of the Meliata-Hallstatt ocean and (2) material of the overriding lithospheric plate immediately above subducting oceanic plate. The first type is represented by metamorphosed basaltic rocks with BABB to N-MORB affinity (Groups 1 and 2) occurring in the association with carbonates, rarely pelitic schists and also radiolarites. All these rocks are probably Mesozoic in age. The latter type is represented by metamorphosed calc-alkaline basalts (Group 3) interlayered by pelitic metasediments containing originally variable amounts of organic matter and pyroclastic component. The age of this formation is probably Early Palaeozoic (Faryad and Henjes-Kunst 1997 - $^{40}Ar/^{39}Ar$ dating on phengite). Polymetamorphosed amphibolite associated with phyllonitised gneisses (Group 5) and banded metamorphosed calc-alkaline volcanoclastics interlayered with banded carbonates (Group 4) belong probably to the same type.

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Sr–Nd Isotopic Composition of Granites from the Northern Part of the Moldanubian Pluton and its Significance for Genetic Classifications

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In order to characterise sources and processes that could have been involved in genesis of peraluminous granites in the northern part of the Moldanubian Pluton (MP) a combined study of whole-rock major- and trace-element geochemistry and Sr–Nd isotopic composition was undertaken. As precise geochronological information on individual rock types is still scarce, a muscovite Ar–Ar age of 328 Ma (Scharbert et al. 1997) was chosen to age-correct all isotopic ratios. The granites are classified using a scheme published by Matějka (1997 and references therein); undistinguished fine-grained granites between Čeřínek and Landštejn bodies are termed Eisgarn s.l.

The new Sr isotopic ratios (Tab. 1) tie in with those published previously (Scharbert and Veselá 1990) and thus all the available data were treated as a single data set. Taken together, they are very variable ($^{87}Sr/^{86}Sri$ = 0.7049–0.7144), spanning a wide compositional range from little modified, mantle or lower crustal rocks to mature metasedimentary lithologies such as Moldanubian paragneisses. The most primitive is the Pavlov granite (0.7049–0.7051, n = 2), followed by Boršov (0.7067–0.7075, n = 6), one analysis of the Světlá type (0.7075: Kam. Lhota) and Čeřínek granite (0.7090–0.7100, n = 3). Eisgarn s.l. from Horní Cerekev (Scharbert and Veselá 1990) yielded an initial ratio of 0.7108 — identical to Eisgarn granite analysed by Liew et al. 1989. Comparable composition shows majority of Lipnice type (0.7092–0.7111, n = 3) and one Světlá granite (0.7110: D. Březinka). The Sr-isotopic ratios from the Bílý kámen granite are extremely variable (0.7051–0.7120, n = 10). The most evolved strontium contains typical Eisgarn s.l. (0.7122–0.7143, n = 7).

On the other hand, the obtained initial Nd-isotopic compositions (so far not determined in this part of the MP) are all evolved and more or less uniform (ε^{i}_{Nd} = -5.6 to -7.9; Tab. 1). High two-stage Nd model ages indicate a negligible (if any) role for depleted-mantle derived magmas and a long crustal history of the protolith (T^{DM}_{Nd}= 1.48–1.66 Ga). The most primitive is Lipnice (-5.6), followed by Světlá (-6.2), Pavlov (-6.5),

	Locality (type*)	$^{87}Sr/^{86}Sr_i$ †	$^{143}Nd/^{144}Nd_i$ †	ε^{i}_{Nd} †	T^{DM}_{Nd} ‡
Ce-1	Boršov (B)	0.70672	0.511850	-7.1	1.60
Ce-2	Boršov (B)	0.70746	0.511842	-7.3	1.62
Ce-3	Čeřínek (Č)	0.70974	0.511811	-7.9	1.66
Me-1	D. Město (L)	0.70921	0.511928	-5.6	1.48
Me-2	D. Město (L)	0.71108	–	–	–
Me-3	D. Březinka (Sv)	0.71099	0.511896	-6.2	1.53
Me-5	Pavlov (P)	0.70493	0.511883	-6.5	1.55
Me-6	Kam. Lhota (Sv)	0.70754	–	–	–
Me-7	Stvořidla (St)	–	0.511847	-7.2	1.61

* *Rock types (Matějka, 1997):* B: Boršov, Č: Čeřínek, L: Lipnice, Sv: Světlá, P: Pavlov, St: Stvořidla
† isotopic ratios age-corrected to 328 Ma
‡ two-stage Nd model ages (Ga; Liew and Hofmann 1988)

Tab. 1. Sr–Nd isotopic data for granites from northern MP.

Boršov (-7.1 to -7.3), Stvořidla (-7.2) and Čeřínek types (-7.9). Austrian Eisgarn has ε = -7.5 (Liew et al. 1989).

The relatively primitive Sr-isotopic composition of the Pavlov and Boršov granites rules out their genesis by partial melting of ordinary Moldanubian metasediments and may point to a lower crustal source with low time-integrated Rb/Sr ratio. On the other hand, Sr–Nd isotopic signature of both the Lipnice and Světlá types, and, in particular, Eisgarn s.l., is