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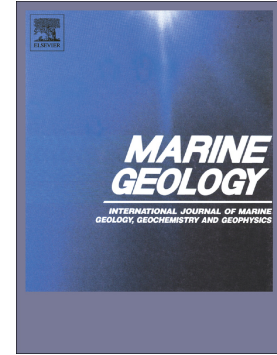
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**North American origin of “pink-white” layers at the Mendeleev Ridge  
(Arctic Ocean): New insights from lead and neodymium isotope  
composition of detrital sediment component**

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**Abstract**

Dolomite-rich layers of distinct pinkish colour are used as lithostratigraphic markers in the Amerasian Basin of the Arctic Ocean. However, origin of dolomite in these sediment units has not been studied in detail. In this study, lead (Pb) and neodymium (Nd) isotope composition of detrital clay-size fraction from different lithofacies were investigated in core PS72/340-5 recovered at the eastern flank of the Mendeleev Ridge. Prior to the geochemical analyses, grain-size distribution was analysed in order to minimize the grain-size effect on the provenance signature. For provenance discrimination, results of isotope measurements were compared with marine surface sediment data and values for the circum-Arctic subaerial provinces. Late Quaternary sediment supply variability was analysed using the mixing model constrained by two tracers:  $^{207}\text{Pb}/^{206}\text{Pb}$  and  $\epsilon\text{Nd}$ . Variations of sediment isotopic composition are inferred to result from mixing of volcanic and plutonic components. Usage of Pb isotopic ratios alone does not allow distinction between these two types of sources. Results confirm

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