



Local Mesozoic remagnetization of New Siberian Islands sediments

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New Siberian Islands (NSI) terrane is one of the key structures of the East Arctic but its tectonic history is still debated. Mesozoic stage in the East Arctic is characterized by active geodynamic events such as closing of the South Anyui Ocean, South Anyui suture forming and Verkhoyansk-Chukotka folding in which NSI terrane has been involved during collision with Siberia. On Lyakhov islands there are discovered thick clastic strata and it is expected that its accumulation occurred in the foretrough during Anyui orogeny in the Late Jurassic - Early Cretaceous [Danukalova, 2009]. During international expeditions to the New Siberian Islands in 2011 and 2013 for paleomagnetic studies Triassic and Devonian deposits on the Kotelny Is. and Late Jurassic-Early Cretaceous sediments of Stolbovoi Is. and Great Lyakhov Is. were tested. The collection was studied by standard paleomagnetic methods and the paleomagnetic directions for these objects were obtained as a result of stepwise demagnetization. The synchronicity of determined magnetization and rock formation was verified by fold test. For all of them it was negative that means the magnetization is post-folding. To estimate the age of expected remagnetization we compared the poles calculated on directions in geographic coordinates with Mesozoic interval of Siberian APWP [Metelkin et al., 2010]. It revealed that obtained NST poles match with its 140-80 Ma interval within the error limits. So we can assume that remagnetization of sediments located along the southern and western boundary of the NSI archipelago coincides with the closure of an oceanic basin and end of accretion-collisional processes associated with the attaching the NSI terrane to Siberia.