

Celestites Diamictites (Middle Miocene - Badenian), Vrancea District, România

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The Middle Miocene (Badenian) celestite (sulphate) diamictites, genetically associated with salt (evaporite Formation), occur on the external last lineament of the Subcarpathian nappe.

The celestite (sulphate) diamictites have been described from north-south lineament, between the Valea Sării Brook and the locality of Andreiașu. All over they consist of intraformational gypsite elements, varying in size from blocks to centimetric fragments, with a small amount of extrabasinal elements. The blocks occur in a quasinal stratigraphic position, so that the deposits generally display a stratiform geometry with no lateral shifting. The texture is clast-supported, in places matrix-supported when the matrix forms a common body with the elements, as a result of the polyphase diagenetic by recementation and compaction of the deposit.

The mineralogical analyses of heavy mineral concentrates, obtained both from gypsite elements and matrix, evidenced for the first time an association of authigenic minerals which included celestite, sulphides, fluorite and clear blende. Celestite has all crystallographic parameters closed to those of celestite encountered in other similar formations in România and its refractive indices correspond to the amounts of 26.25% Sr and 0.10% Ba.

The genetic model of the celestite (sulphate) diamictites formation as collapse breccia, which made possible the deciphering to some extent, of the complex geology of the region, admits several premises, as follows: major tectonic control connected with the Subcarpathian nappe; tectonic-structural control connected with the Cașin-Bisoca fault and Rotilești - Andreiașu anticline and, last not least, control of the halokinetic and seismic processes, the Vrancea region being the seismic centre off the country.