

**PALYNOLOGY, PALYNOFACIES AND THERMAL MATURATION OF THE  
KEROGEN FROM THE MOLDAVIDIAN DOMAIN (GURA HUMORULUI AREA)**

DANIEL ȚABĂRĂ<sup>1</sup>

<sup>1</sup> “Al. I. Cuza” University of Iași, Faculty of Geography and Geology, Department of  
Geology, 20A Carol I Blv., 700505 Iași, Romania

**Abstract**

The present paper analyzes the palynofacies and maturation degree for bituminous rocks belonging to the Tarcău and Vrancea Nappes (Gura Humorului-Frasin area). The organic constituents discovered in the samples analyzed consist, in a large proportion, of amorphous organic matter, followed by phytoclasts and palynomorphs. The prevailing component in the palynological assemblage is marine phytoplankton from the Lower Dysodilic Shale, indicating an outer neritic setting. The type of sedimentary basin, inferred based on palynofacies criteria, is a distal suboxic-anoxic one.

The kerogen extracted from the rocks is Type II, and the TOC content indicates a fair to excellent genetic potential for petroleum. The maturation degree of the organic matter was determined based on optical criteria (Thermal Alteration Index and palynomorph fluorescence), a stage at the limit between the immature and the mature being identified.

**Keywords:** Oligocene, palynology, palynofacies, thermal maturation of kerogen, bituminous rocks.

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<sup>1</sup> e-mail: tabara\_d@yahoo.com