

GEOCHEMICAL GROUPS OF ALLUVIAL SEDIMENTS OF THE LOWER COURSE OF THE OBRA RIVER: AN EXAMPLE OF USING CLUSTER ANALYSIS

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Abstract: Research concerning changes of chosen chemical elements concentration in alluvial sediments was conducted in the lower course of the Obra river valley. The analyses of Fe, Mn, Cu, Zn, Ca, Mg and K concentration were done in a fragment of vertical profile, which was characterized by variable lithology. On the basis of statistical analysis (cluster analysis) an attempt was made to distinguish geochemical groups of alluvial sediments of the Obra river valley. Six geochemical groups, which represent reductive conditions within peat deposits, the environment of flood sediments (inserts of fine sands within peats and sandy silts in the top of the profile) and the environment of river bed sediments (fine sands in the bottom part of the profile), were singled out. Results of the study show that it is possible to distinguish the above mentioned depositional environments on the basis of variations of sediments' chemical constitution.