

RATE AND CHARACTER OF RAW DOLOMIT DISSOLUTION

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The process of dissolution of raw dolomite granules (7–10 mm in size) from Elizavetino deposit (Gatchinskiy district, Leningrad region) was studied in a laboratory experiment. The dolomite was dissolved in solutions of different acidity (pH range from 3.9 to 6.5) and the proceeded was going on continuously. That was supported by the changes in the mass of dolomite particles and by the changes in the solutions acidity. It was found that the granules dissolution rate depended on the properties of the specific dolomite particles and, to a lesser extent, on the acidity of the solutions in which the dolomite was placed. For 2 months, the decline of dolomite mass ranged from 1.7 to 16 %. The greatest loss of dolomite particles mass was measured in the first days of the experiment, after dolomite was placed in the solutions. Dolomite was dissolved in the process of chemical weathering with the formation of dolomite flour.

Key words: raw dolomite, liming, laboratory experiment, dissolution rate.