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ГЛЯЦИОГЕННЫЕ ДЕФОРМАЦИИ ЗОЛОТА ИЗ ПСЕФИТОВ СЫСОЛЬСКОЙ МУЛЬДЫ

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V. N. BUSHENEV, V. A. PATOVA. GLACIOGENIC DEFORMATIONS OF GOLD
FROM PSEPHITES OF SYSOLSKAYA SYNCLINE

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The paper displays new data on morphology and composition of gold in the Middle Jurassic paleo-placer occurrence named Bezdubovo (in Sysolskaya syncline, Komi republic). Gold particles and associated minerals were studied with the scanning electron microscope JSM-6400 with energy spectrometer Link ISIS-300. The whole selection included 139 gold particles extracted from three samples (total volume 0.03 m³). The particles range in size from 0.04 to 0.43 mm, but fine (0.1—0.25 mm) and the finest (0.05—0.1 mm) classes make the dominant part of the whole scope (97 %). Practically all gold (99 %) is represented by plated flake-like particles with extremely high fineness of the superficial metal — 1000 ‰ Au. Thickness of gold flakes varies from 0.005

to 0.05 mm, but mostly (87 %) it is within the narrow range from 0.01 to 0.02 mm. Concentrations of gold in the Middle Jurassic psephites (as estimated by three samples with individual volumes 0.01 m³) vary from 0.31 to 0.57 mg/0.01 m³. Morphology of the studied paleoplacer gold is characterized by numerous and variable non-crystalline coarse-angulated forms of secondary deformations (pressing forms), together with remaining signs of rounded shapes typical for particles treated in water streams and wind activity. The origin of widespread «press-forms» can be explained by strong one-event pressing of unconsolidated gold-bearing sediments, which is probably caused by Pleistocene glacial movements.