

SCANDIUM IN KAOLINITE, LATERITE CRUST OF WEATHERING AND BAUXITE (UZBEKISTAN, CUBA ISLAND VOLCANO-TECTONIC DEPRESSION (CENTRAL ASIA, TIEN-SHAN))

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The distributions and existence forms of Sc have been studied by the methods of neutron activation analysis, neutron activation radiography and diffractometry. In Albian-Cenomanian crusts of weathering of shales (the Central Kyzylkum - Auminzatau) the content of Sc is up to 56-60 g/t and it is contained in brookite. In kaolinite-goethite-hematite sediments of Albian stage, overlapping crusts of weathering, content of Sc was up to 130 g/t in brookite and hematite. In the southwestern spurs of Gissar ridge (T-Y1) crust of weathering of effusive rocks and overlapping it terra rossa with bauxite bodies are widely spreaded. In hematite-kaolinite crusts of weathering of Vuaru andesite-basalt the Sc content (g/t) is about 61.3-78.7 g/t. Sc is concentrated (g/t) in: hematite, substituting pyroxen, (62-75); goethite in overlaying sediments (59.4), hematitic cement of bauxites (61.5), diaspor-hematitic (52.1) and dickitic pisolites (12.1). In Kairak bauxites Sc is distributed as follows (g/t): in kaolinite-hematitic cement (71.9-127.6), diaspor-chamoisite-kaolinitic bauxites (68.3-91.3), hematite – chamoisite – kaolinite – carbo-naceous - pisolites (157.7). In Kundadzuaz Sc is contained (g/t) in: kaolinite-hematitic claystones (56.1 - 111.5) and hematite - kaolinite - chamoisitic ones (52.6-96.9). It is concentrated in (g/t): hematite (90), diaspor with chamoisitic admixture (72.3). In claystones and bauxites of Kairak and Kundadzuaz the contents of Sc are correspondingly 2-4 and 1.5-3 times higher, than in non-altered effusive rocks. Contents of Sc (g/t) have been found in: leached and nontronitic ultrabasites of Cuba island (5.4-65.3); structural ochres developed after dunite (56.3), harzburgite (51.9-61.0); hematite-goethitic ochres (50.7-70.9); ochres with pisolites (45.-76.5); cuirasses (21.3-71.3); Mn-pisolites - (75.1).