

The Diamond-Bearing Uralian Tuffisites and Brazilian Fillites - Two Impact Analogies?

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At the present time, the analogy hasn't doubt between the diamond-bearing West Urals' and Brazilian rocks. The convincing data are obtained about the manifestation of an intensive explosive processes and hydrothermal activity in the Uralenses tuffisites and Brazilian fillites.

According to the aurther's impact hypothesis, the Urals' tuffisites are an allogenic impact breccias with signs of postimpact pseudovolcanic activity. They were transported from the central parts of the West-Siberian and Kazakhstani impact structures by some hundreds kilometers together with diamonds. The pre-impact sources of diamonds were kimberlites and lamproites of explosion's pipes, eclogites, rocks of gabbro-peridotitic formation (impactors' substance, in author's opinion), coal- and graphite-containing rocks. It explains the absence of diamonds' radical sources in the Urals, the presence of the "worn-out" diamonds.

These conclusions conform with data about the presence of armcolite, small balls composed by native iron, vanadium, silicium, muassanite etc. in the Urals' tuffisites. The similar signs were observed in the Brazilian fillites. The growths of perovskite, piropo-almandine and stishovite were found in fillites' diamonds. The stishovite's presence permits to suppose the lonsdeilite's availability among fillites' diamonds. The analogous parageneses may be expected in the Urals' tuffisites.

Thus, both the Urals' tuffisites and Brazilian fillites may be considered as the two impact diamond-bearing analogies.