Cretaceous Island Arc Volcanic Sequences in the Cuban Territory. An Overview.

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In Western Cuba, outcrops of Cretaceous volcanic rocks are limited both in area and thickness. They are often found in a melange in which rocks of the ophiolite association are present. Some of these sequences could have been formed in a BAB environment.

In Central Cuba, island-arc outcrops are well preserved, cover an area of over 4000 km^2, have a thickness of over 10000 m and a K_1^{ne}-K_2^{cp} age span. In Cienfuegos, Villa Clara and Sancti Spíritus provinces, the lower portion of the section displays rocks corresponding to a bimodal volcanism whose geochemical characteristics are related to IAT or to primitive arc Caribbean-type sequences. Confirmation of a PIA requires further investigations. Vulcanites progressively change into CA and CA-K series.

Island-arc rocks at Ciego de Avila, Camagüey and Las Tunas provinces show two distinctive features: a high K content, which confers them an alkaline character (reaching SH series) and a remarkable development of subaerial explosive eruptions represented by ignimbrites.

In Eastern Cuba, Cretaceous vulcanites occur in Holguín, where they are mixed with ophiolitic slides and younger sediments just as they are in Western Cuba. In Mayarí-Baracoa, they have an allochthonous tectonic character. In the southeastern area of this region, they underwent high P/T metamorphism. In the south of Sierra Maestra, they are composed of volcanic-sedimentary deposits allegedly formed in a fore arc.

The existence of one or two Cretaceous arcs, their polarity, internal structure, geodinamic evolution and associated mineral deposits within the Caribbean realm is discussed.