

Eruptive dates of tephtras from Ilopango Caldera, El Salvador, C. A.

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The mineralogical properties and chemical composition of volcanic glass were analyzed for four felsic tephra named TBJ, TB2, TB3 and TB4 from Ilopango Caldera, El Salvador, C. A. by microscopic observation and EPMA analysis. Although these properties of the four tephra are similiar to one another, a slight differnece of the chemical composition of volcanic glass discovered in this study make it possible to identify each tephra. It enables us to correlate two vitric ash named La Periquera ash and El Refugio ash, which are observed in the area around Santa Ana Volcano, ca. 80 km from Ilopango Caldera, to the TB2 and the TB4 tephtras, respectively. Depositional dates of the two tephra, illustrated previously as about ca. 7 ka and 30-45 ka, indicate that four large felsic eruptions occurred in the recent 40,000 years at Ilopango Caldera.

Keywords: TB4 tephra, large caldera eruption, chemical analysis of volcanic glass