

Lamination and its preliminary analysis of the stalagmite collected in Ciawitali Cave, West Java, Indonesia

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We carried out geological surveys of limestone caves in Buniayu, West Java, Indonesia, and collected many speleothems there, which were the samples for the research for the past climate. We did observation and layer counting of CIAW15 stalagmite, which were sampled in Ciawitali Cave.

CIAW15 was sampled on the 3m high eaves in the large hall, that was about 70m inside from the entrance of the cave, on March, 2006. We bisected this stalagmite and produced a thin section. From lower part to the surface, CIAW15 consists of flowstone, porous, and compact part. We observed the thin section of the compact part with microscope in transmitted light and fluorescent light. In transmitted light, we found partly clear layers which consist of an opaque interface and a transparent calcite band. In fluorescent light, the dark layer observed in transmitted light turned to a bright layer and transparent layer turned to dark. This suggests that dark layers in transmitted light formed by concentration of organic matters. Moreover, we counted about 110 bandings and measured their thickness in 10mm from the surface of the stalagmite. The average thickness of them was about 80 micrometers.