

HGM005-11

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## Terrestrial cosmogenic nuclide applications in karst geomorphology

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This study reports several applications and potentials of terrestrial cosmogenic nuclides in process geomorphology in karst landscapes. We quantified susceptibility of denudation rates of carbonate rocks to climates in tropical to subarctic regions, by using chlorine-36 in calcite. Chlorine-36 also enables us to establish a model for evolution of solution dolines in a temperate karst area. Al-26/Be-10 burial dating of abandoned cave deposit reveals formation age of a karst tableland in southwest Japan. We try to define roles and scope of this methodology.

**Keywords:** terrestrial cosmogenic nuclides, karst, denudation rate, burial dating, accelerator mass spectrometry