

Do unknown C-class active faults exist innumerably in Japan?

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The question "what are active faults" is discussed by examining the "C-class active fault problem." Despite the idea that numerous unknown C-class active faults should exist in the Japanese Islands, the actual number of C-class active faults is considered rather small, since earthquake generation in the upper crust is a dynamic process of crack growth of various sizes and some cracks may produce a M 7 large earthquake only once during ca. 0.5 My without forming an active fault. According to this view, active faults are surface manifestations of more or less matured underground crack systems. This view yields an idea that an active fault may evolve or have a life cycle.