Long-term stability of uranium deposits in the geologic bodies: an application of cathodoluminescence geodosimeter

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In order to understand the long-term stability of uranium deposits in the geologic bodies, cathodoluminescence geodosimeter developed by Komuro et al. (2002) and Hatsuya et al. (2004) is applied for uranium ores of various occurrences. The observation of some primary uranium ores under the CL microscope indicates that the development of radiation damage halos is well correlated with the distribution of radionuclides-bearing minerals. On the other hand, in some secondary ores the development is not well correlated with the distribution of radionuclides-bearing minerals. Semi-quantitative analysis of uranium migration and retention for some ores will be presented.