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**Determination of Natural Alpha Radiation Effect:
Application of ESR Spectroscopy**

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Abstract

Alpha radiation leaves a stable defect center to certain minerals. Electron Spin Resonance(ESR) spectroscopy is a powerful tool for quantifying these defect center. ESR method has been applied to trace alpha-radiation effect around the uranium ore deposit. The results show that ESR technique can be used to measure rapidly and nondestructively the defect center produced by natural alpha radiation.