

Environmental Radiation Monitoring Utilizing Solid State Dosimeters

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A personal glass dosimeter (GD) based on the radiophotoluminescence phenomenon in Ag⁺-doped phosphate glass was evaluated for its applicability to the measurement of environmental natural background radiation. To investigate the potential of the personal GD, we measured the monthly data of environmental natural background radiation at seven points in Ishikawa prefecture. The results indicated that the personal GD is suitable and reasonable for monitoring environmental natural background radiation. It is very important to monitor environmental natural background radiation to detect changes in environmental radiation dose such as experiments using an atomic bomb or an accidental leakage of radioactivity from a radiation facility. The personal GD will be a very useful tool to monitor both the environmental natural background radiation dose and personal radiation dose.

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