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Development of a non-destructive inspection method for trees using cosmic rays

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We have developed a technique for non-destructive inspection of huge structures such as the Egyptian pyramids and nuclear reactors using cosmic rays, which have high material penetration ability. In this study, we proposed a new application of this technique to the cavity exploration of trees. We used nuclear emulsion as a cosmic-ray detector. The non-destructive inspection technique using cosmic rays was applied to trees for the first time, and the validity of this technique as a diagnostic method for giant trees was clarified.

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