

**Non-Energy Applications of Nuclear and Radiation Science in Japan:
a review**

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Abstract

Japan has produced very large quantities of power through nuclear energy production, which of course, has been underlain by various nuclear and radiation sciences and related technologies. Nuclear and radiation science has also been applied to a wide variety of non-energy fields.

After giving a short history of the development of non-energy applications of nuclear and radiation science in Japan, current applications will also be reviewed. These applications will include: industrial and environmental topics, medical therapy and diagnosis, measurements based on characteristics of different types of radiation including non-destructive assay, and investigations using tracer and genetic mutation in agricultural science. On-going research to develop potential non-energy applications for the future is also presented.