

"0.4 Gy and more sensitive Compact ESR system for irradiated nail"

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Summary of the first paper:

**We realized that 1 Gy radiation-induced changes in fingernails based on ESR
measurement by April 2008.**

0.4 Gy irradiated fingernails using 22kg one box

ESR equipment is presented based on as follows:

- 1. Use of a higher Q resonator**
- 2. Use of a more quiet resonator without any influence from
magnetic modulation**
- 3. Use of fingernails positioner in the resonator**
- 4. Time control from fingernails dipping to water till testing**
- 5. Grain size control after cutting fingernails**

We measure actually the fingernails after treatment process as follows:

- 1. The fingernails is radiated by radiation**
- 2. The fingernails is cut adjusted to grain size**
- 3. Immersed to water**
- 4. drying**

So we got a good result after similar treatment process to actual

- 1) cutting fingernails**
- 2) radiation**
- 3) Adjusted to grain size**
- 4) Immersed to water**
- 5) Drying**