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Radiophotoluminescence in Sm-doped BaF<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub> glass-ceramics

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## Radiophotoluminescence in Sm-doped BaF<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub> glass-ceramics

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**Abstract:** In this research we have found that Sm-doped BaF<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub> glass ceramics show radio-photoluminescence (RPL) properties associated with X-ray irradiation. Before X-ray irradiation, the photoluminescence (PL) emission is only due to the 4f-4f transitions of Sm<sup>3+</sup> observed around 600 nm; however, after X-ray irradiation it shows additional PL emissions due

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