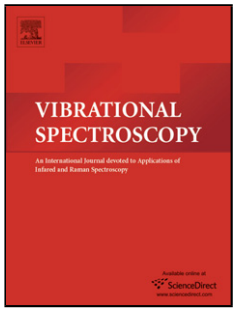

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FT-IR spectroscopic investigation of ionizing radiation-induced damage in the small intestine of whole-body irradiated rats.

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Highlights

- 10 cGy and 2 Gy x-rays induced lipid peroxidation in the lipids of the small intestines of whole-body irradiated rats and induce alterations in the molecular structure of tissue lipids and proteins.
- Low and high-dose irradiations increased the cellular membrane rigidity.
- FT-IR spectroscopy suggests that low-dose irradiation with 10 cGy induced conformational changes in the protein secondary structure of the small intestines.
- 10 cGy of x-rays did not induce radioadaptation against a subsequent 2 Gy dose.
- FT-IR spectroscopy is a valuable tool to study radiation-induced damage in tissue samples.