

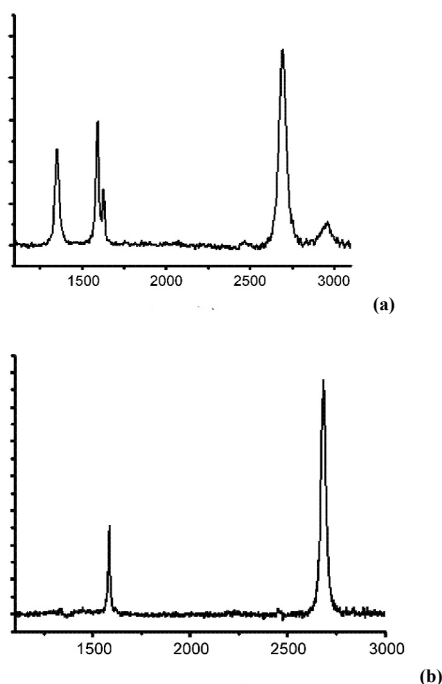
# FT–raman spectroscopy, coherent anti–stokes raman spectroscopy (CARS) and raman optical activity spectroscopy (ROAS) comparative study on malignant and benign human cancer cells and tissues with the passage of time under synchrotron radiation

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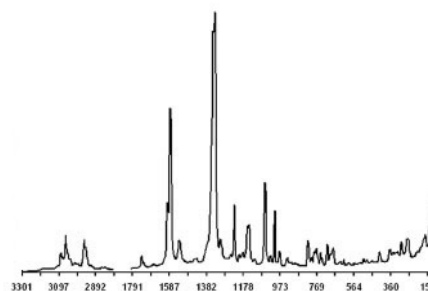
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In the current study, we have experimentally and comparatively investigated and compared malignant human cancer cells and tissues before and after irradiating of synchrotron radiation using FT–Raman Spectroscopy, Coherent Anti–Stokes Raman Spectroscopy (CARS) and Raman Optical Activity Spectroscopy (ROAS). It is clear that malignant human cancer cells and tissues have gradually transformed to benign human cancer cells and tissues under synchrotron radiation with the passage of time (Figures 1-3) [1-198].

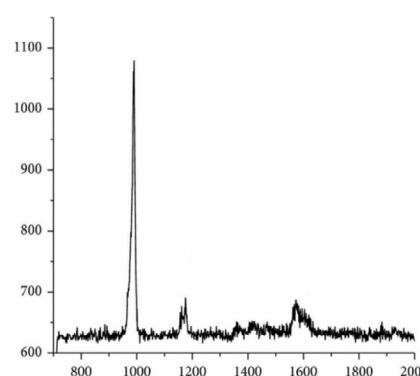
It can be concluded that malignant human cancer cells and tissues have gradually transformed to benign human cancer cells and tissues under synchrotron radiation with the passage of time (Figures 1-3) [1-198].



**Figure 1.** FT–Raman Spectroscopy analysis of malignant human cancer cells and tissues (a) before and (b) after irradiating of synchrotron radiation in transformation process to benign human cancer cells and tissues with the passage of time [1-198]



(a)

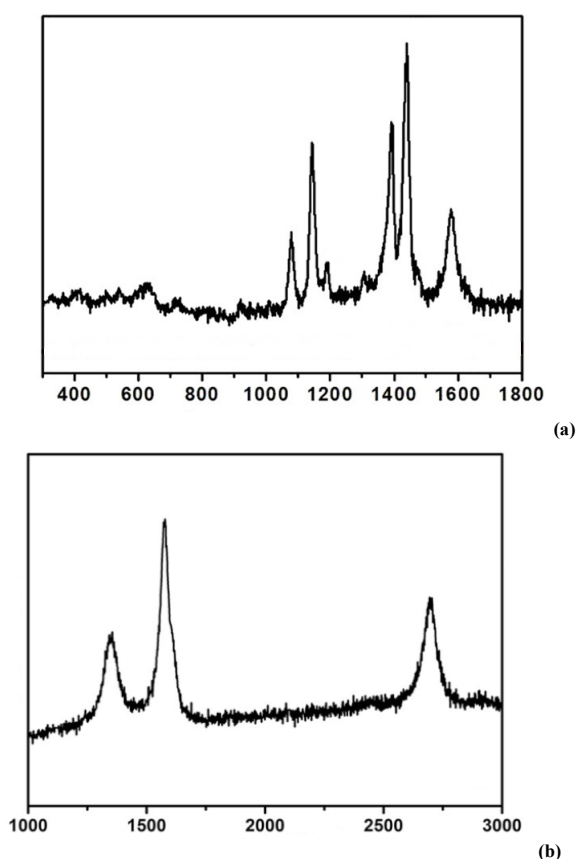


(b)

**Figure 2.** Coherent Anti–Stokes Raman Spectroscopy (CARS) analysis of malignant human cancer cells and tissues (a) before and (b) after irradiating of synchrotron radiation in transformation process to benign human cancer cells and tissues with the passage of time [1-198]

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**Figure 3.** Raman Optical Activity Spectroscopy (ROAS) analysis of malignant human cancer cells and tissues (a) before and (b) after irradiating of synchrotron radiation in transformation process to benign human cancer cells and tissues with the passage of time [1-198]

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