

# Multivariate Analysis of Difference Raman Spectra of the Irradiated Nucleus and Cytoplasm Region of SH-SY5Y Human Neuroblastoma Cells

Ines Delfino <sup>1,\*</sup>, Valerio Ricciardi <sup>2,3,#</sup>, Lorenzo Manti <sup>3,4</sup>, Maria Lasalvia <sup>5,6</sup> and Maria Lepore <sup>2</sup>

<sup>1</sup> Dipartimento di Scienze Ecologiche e Biologiche, Università della Tuscia, 01100 Viterbo, Italy; delfino@unitus.it (I.D.)

<sup>2</sup> Dipartimento di Medicina Sperimentale, Università della Campania "L. Vanvitelli", 80100 Napoli, Italy; valerio.ricciardi@unicampania.it (V.L.), maria.lepore@unicampania.it (M.Le.)

<sup>3</sup> Istituto Nazionale di Fisica Nucleare, sezione di Napoli, 80126 Napoli, Italy; valerio.ricciardi@unicampania.it (V.L.), manti@na.infn.it (L.M.)

<sup>4</sup> Dipartimento di Fisica, Università "Federico II," 80126 Napoli, Italy; manti@na.infn.it (L.M.)

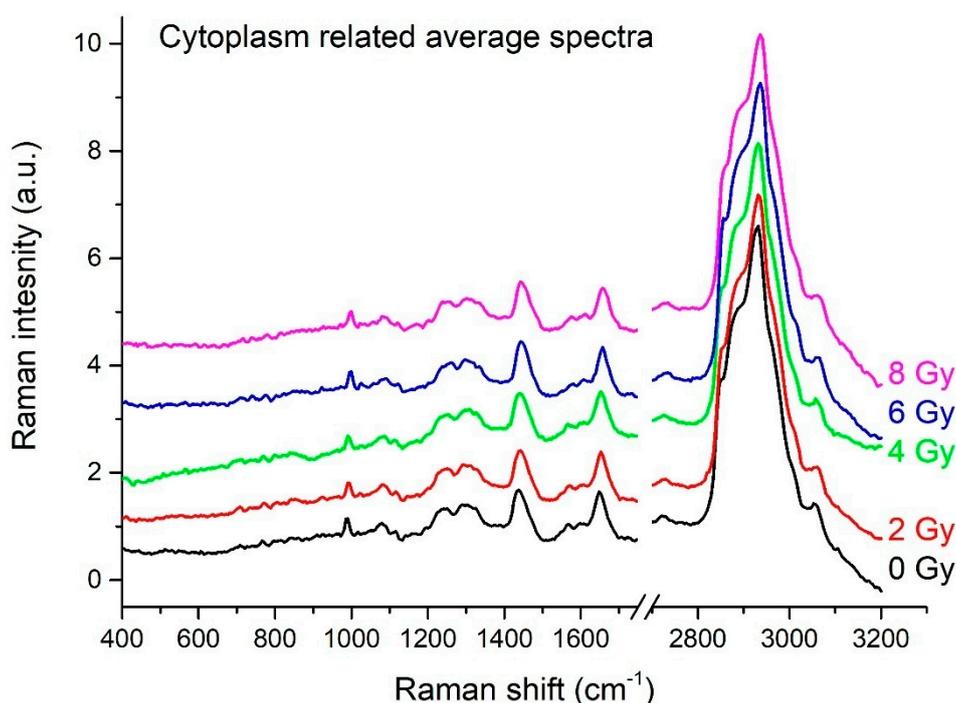
<sup>5</sup> Dipartimento di Medicina Clinica e Sperimentale, Università di Foggia, 71100 Foggia, Italy; maria.lasalvia@unifg.it (M.La.)

<sup>6</sup> Istituto Nazionale di Fisica Nucleare, sezione di Bari, 70125 Bari, Italy; maria.lasalvia@unifg.it (M.La.)

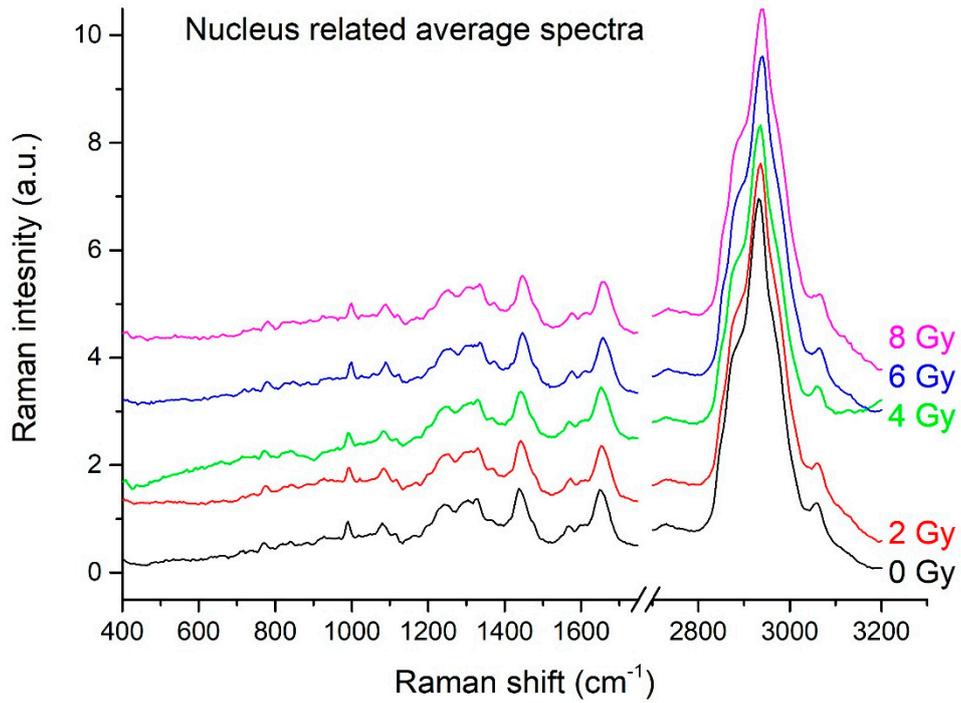
\* Correspondence: delfino@unitus.it

# Present address: Dipartimento di Matematica e Fisica, Università della Campania "L. Vanvitelli", 81100, Caserta, Italy (V.R.)

Received: 26 August 2019; Accepted: 13 September 2019; Published: date



**Figure S1.** Spectra obtained by averaging all the spectra taken from cytoplasm. separately evaluated for each "irradiation treatment", i.e. 0 Gy, 2 Gy, 4 Gy, 6 Gy and 8 Gy of irradiation dose. For the sake of clarity, spectra are shifted along the y-axis.



**Figure S2.** Spectra obtained by averaging all the spectra taken from nucleus. separately evaluated for each "irradiation treatment", i.e. 0 Gy, 2 Gy, 4 Gy, 6 Gy and 8 Gy of irradiation dose. For the sake of clarity, spectra are shifted along the y-axis.