

Supplementary Materials

# Stretchable, Bio-Compatible, Antioxidant and Self-Powering Adhesives from Soluble Silk Fibroin and Vegetal Polyphenols Exfoliated Graphite

Luca Valentini <sup>1,\*</sup>, Maria Rachele Ceccarini <sup>2</sup>, Raquel Verdejo <sup>3</sup>, Gianluca Tondi <sup>4</sup> and Tommaso Beccari <sup>2</sup>

<sup>1</sup> Civil & Environmental Engineering Department, Università degli Studi di Perugia and INSTM Research Unit, Strada di Pentima 4, 05100 Terni, Italy

<sup>2</sup> Department of Pharmaceutical Sciences, University of Perugia, 06123 Perugia, Italy; mariarachele.ceccarini@unipg.it (M.R.C.); tommaso.beccari@unipg.it (T.B.)

<sup>3</sup> Department of Polymeric Nanomaterials and Biomaterials, Institute of Polymer Science and Technology, ICTP-CSIC, 28006 Madrid, Spain; r.verdejo@csic.es (R.V.)

<sup>4</sup> Department of Land Environment Agriculture and Forestry, University of Padua, 35020 Legnaro, Italy; gianluca.tondi@unipd.it (G.T.)

\* Correspondence: luca.valentini@unipg.it (L.V.); Tel.: +39-0744-492924

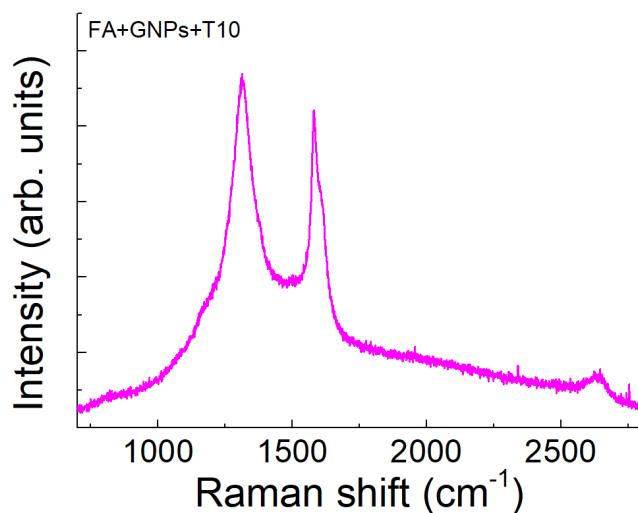
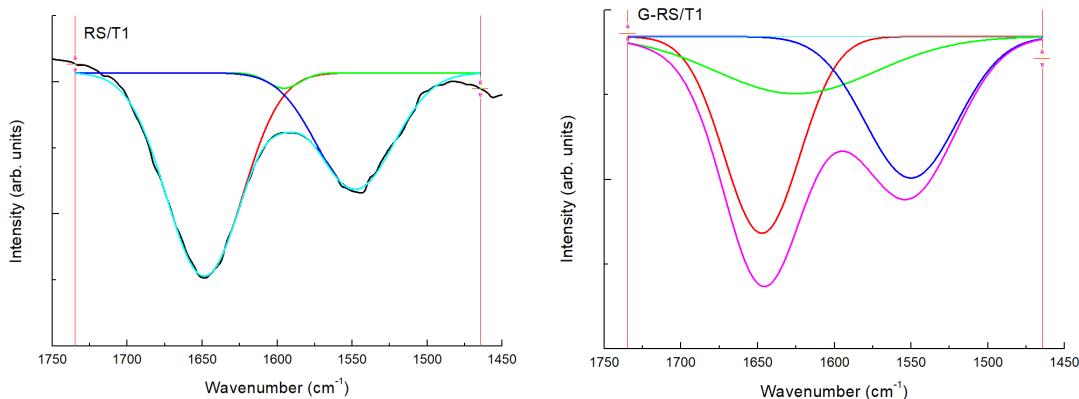
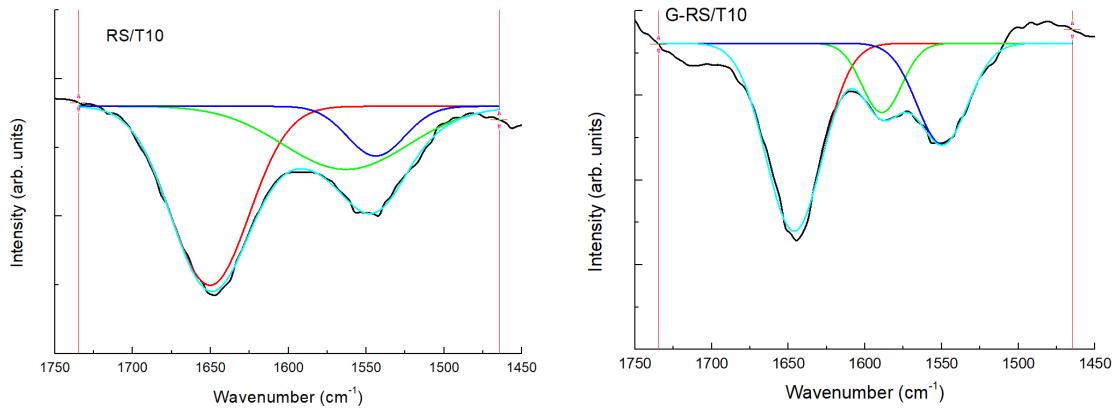
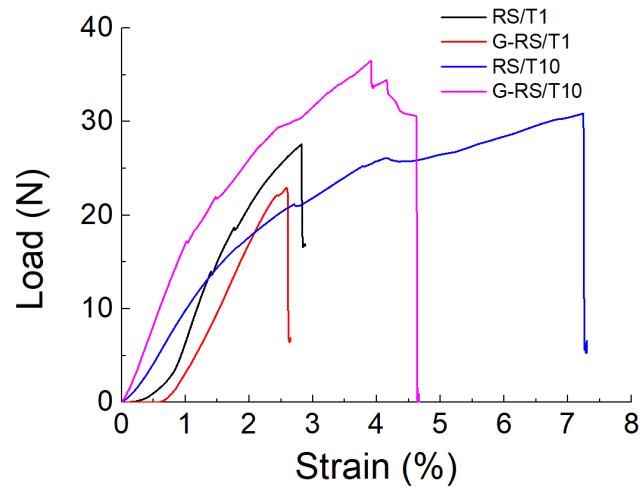


Figure S1. Raman spectrum of G-RS/T10 sample.





**Figure S2.** Deconvolution of FTIR transmittance spectra, amide I region, of RS/T and G-RS/T samples.



**Figure S3.** Force vs. displacement of the prepared samples for the shear strength measurement.