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Sol-gel chemistry for graphene-silica nanocomposite films

Plinio Innocenzi¹, Luca Malfatti¹, Barbara Lasio¹, Alessandra Pinna¹, Danilo Loche², Maria F. Casula², Valeria Alzari³, Alberto Mariani³

¹Laboratorio di Scienza dei Materiali e Nanotecnologie, CR-INSTM, Università di Sassari, Palazzo Pou Salid, Piazza Duomo 6, 07041 Alghero (SS), Italy

²Dipartimento di Scienze Chimiche e Geologiche Università di Cagliari, 09042 Monserrato, (CA) (Italy)

³Dipartimento di Chimica e Farmacia, Università di Sassari, Local INSTM Unit, Via Vienna 2, 07100 Sassari, Italy
E-mail: plinio@uniss.it

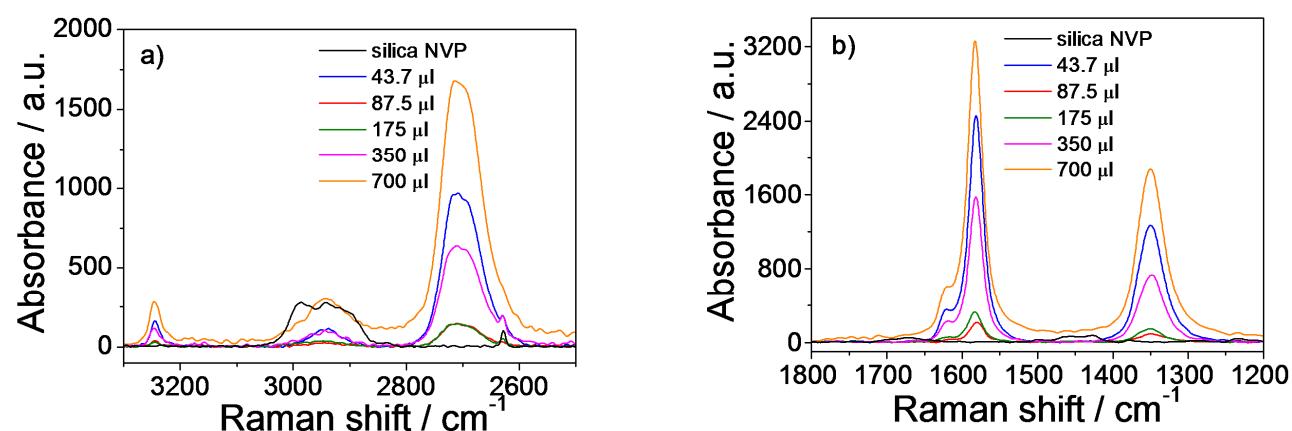


Figure S1. Raman spectra in the range 3300 - 2500 cm⁻¹ (a) and 1800 - 1200 cm⁻¹ (b) of graphene-silica films prepared from sols with various concentrations of graphene (43.7, 87.5, 175, 350 and 700 µl), and silica film with 700 µl of NVP (spectra in black color). The film are thermal treated at 100°C.

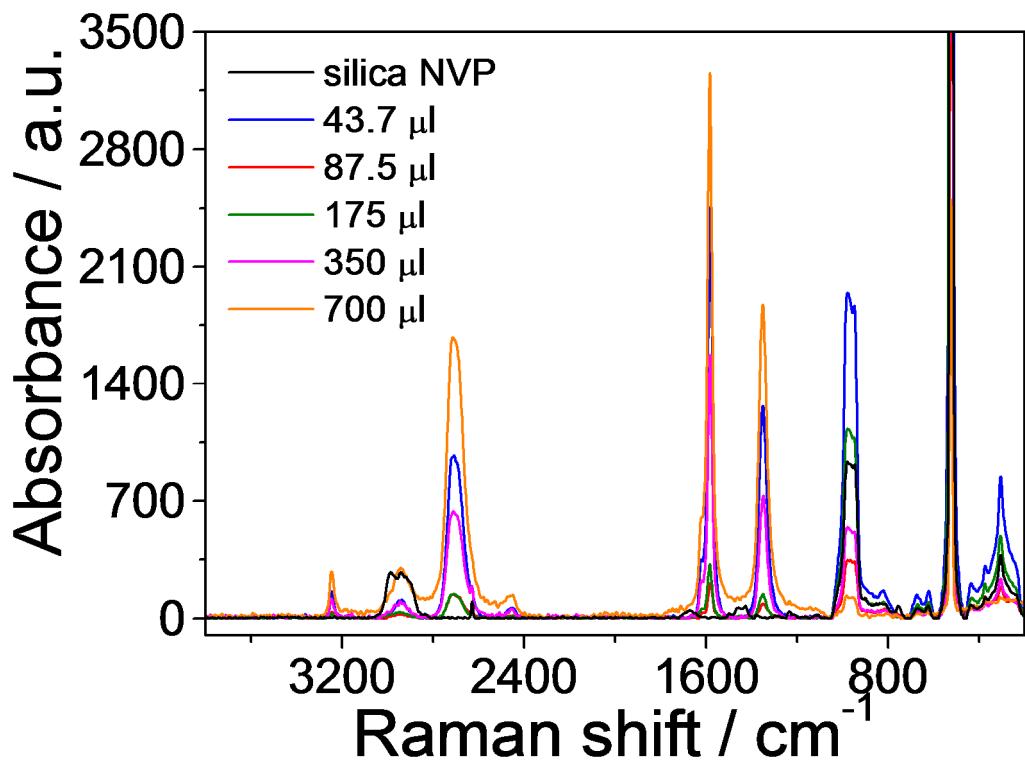


Figure S2. Raman spectra in the range 3800 - 200 cm⁻¹ of graphene-silica films prepared from sols with various concentrations of graphene (43.7, 87.5, 175, 350 and 700 μl), and silica film with 700 μl of NVP (black color spectrum). The film are thermal treated at 100°C.

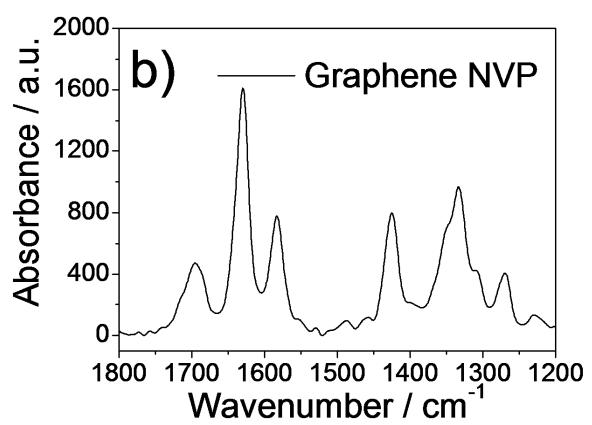
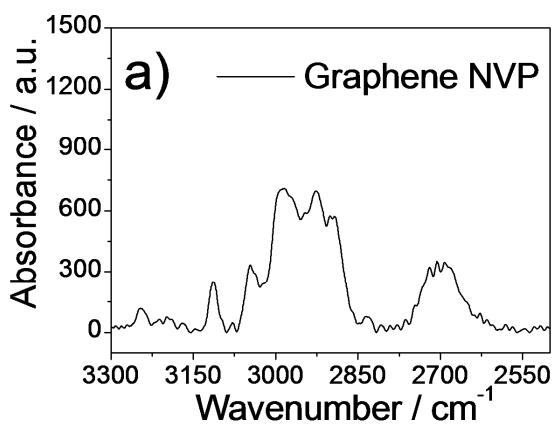


Figure S3. Raman spectra in the range $3300 - 2500 \text{ cm}^{-1}$ (a) and $1800 - 1200 \text{ cm}^{-1}$ (b) of graphene NVP suspension cast on silicon substrate.