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**Supporting Information** 

Synthetic possibility of polystyrene functionalization based on hydroxyl groups of

graphene oxide as nucleophile

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1. Charaterazation

FT-IR spectra were recorded on a Nicolet IS-10 spectrometer equipped with a Smart OMNI sampler with a high purity Ge crytal. Raman spectra of samples were measured on a LabRAM ARAMIS (HORIBA Jobin Yvon S.A.S.) using an excitation wavelength of 532 nm. XRD analyses were performed on a Bruker D8 Advance diffractometer with Cu-K $\alpha$  radiation. Thermogravimetric analyses (TGA) were preformed on a Mettler TGA/SDTA851e thermogravimetric analyzer

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at a heating rate of 20 °C/min in a dry nitrogen atmosphere.

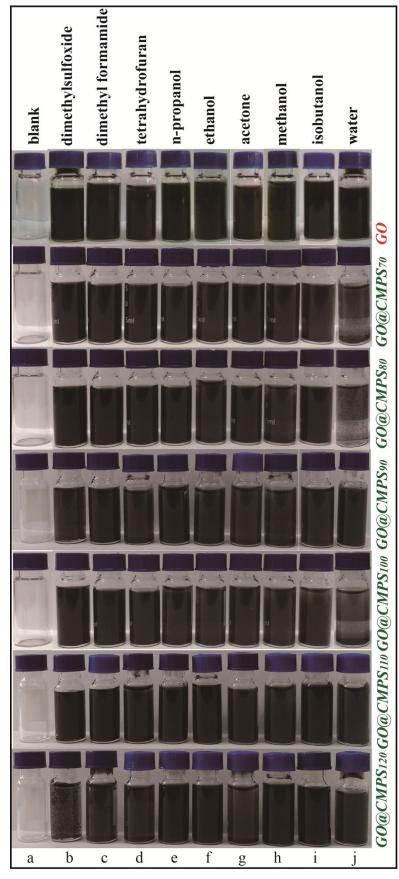


Fig. S1. Digital pictures of GO and GO@CMPS dispersed in water and 7 organic solvents through bath ultrasonication