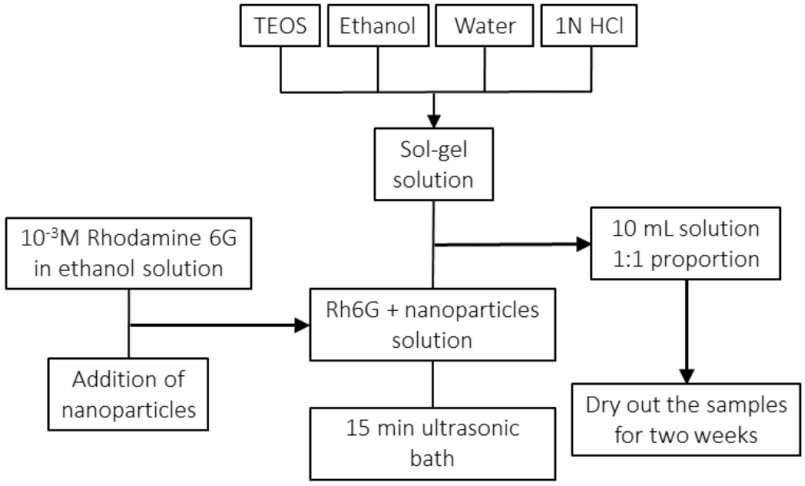
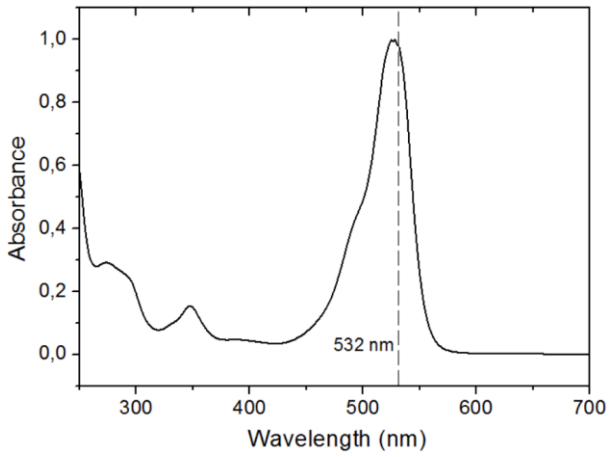
Supplementary Data

- A general acid route for solid state sol-gel fabrication using a 1:1 proportion of sol-gel solution and the dye solution.



- Absorption spectrum of TiO_2 lower concentrated sample showing that the nanoparticles do not influence the characteristic Rhodamine 6G absorption spectra. The dashed line shows the 532 nm region which was the excitation wavelength employed in the random laser characterization experiment.



- Typical solid state xerogel obtained through the fabrication route shown above. The transparency of the lower concentrated sample can be observed in (a) and an ultraviolet laser pointer exciting the sample from left to right in (b) shows the low scattering optical path of the laser beam.