

Supplementary Materials

# Aerosol Dry Printing for SERS and Photoluminescence-Active Gold Nanostructures Preparation for Detection of Traces in Dye Mixtures

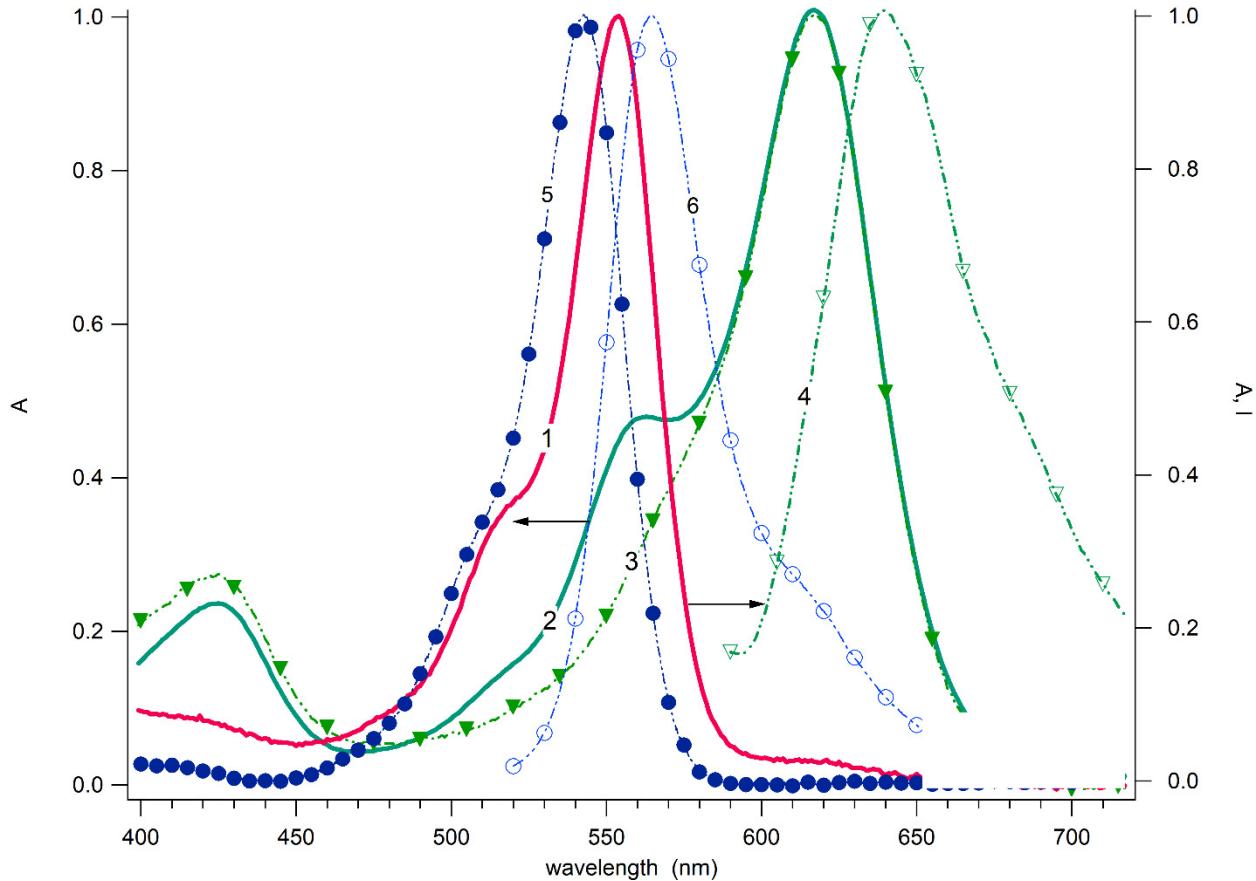
Victor Ivanov <sup>1</sup>, Anna Lizunova <sup>1,\*</sup>, Oxana Rodionova <sup>2</sup>, Andrei Kostrov <sup>2</sup>, Denis Konyushin <sup>1</sup>, Arseniy Aybush <sup>1,2</sup>, Arina Golodyayeva <sup>1</sup>, Alexey Efimov <sup>1</sup> and Victor Nadtochenko <sup>1,2</sup>

<sup>1</sup> Moscow Institute of Physics and Technology, National Research University, 141701 Dolgoprudny, Russia; ivanov.vv@mipt.ru (V.I.); kornush94@rambler.ru (D.K.); aiboosh@gmail.com (A.A.);

a.golodyayeva@phystech.edu (A.G.); efimov.aa@mipt.ru (A.E.); nadtochenko@gmail.com (V.N.)

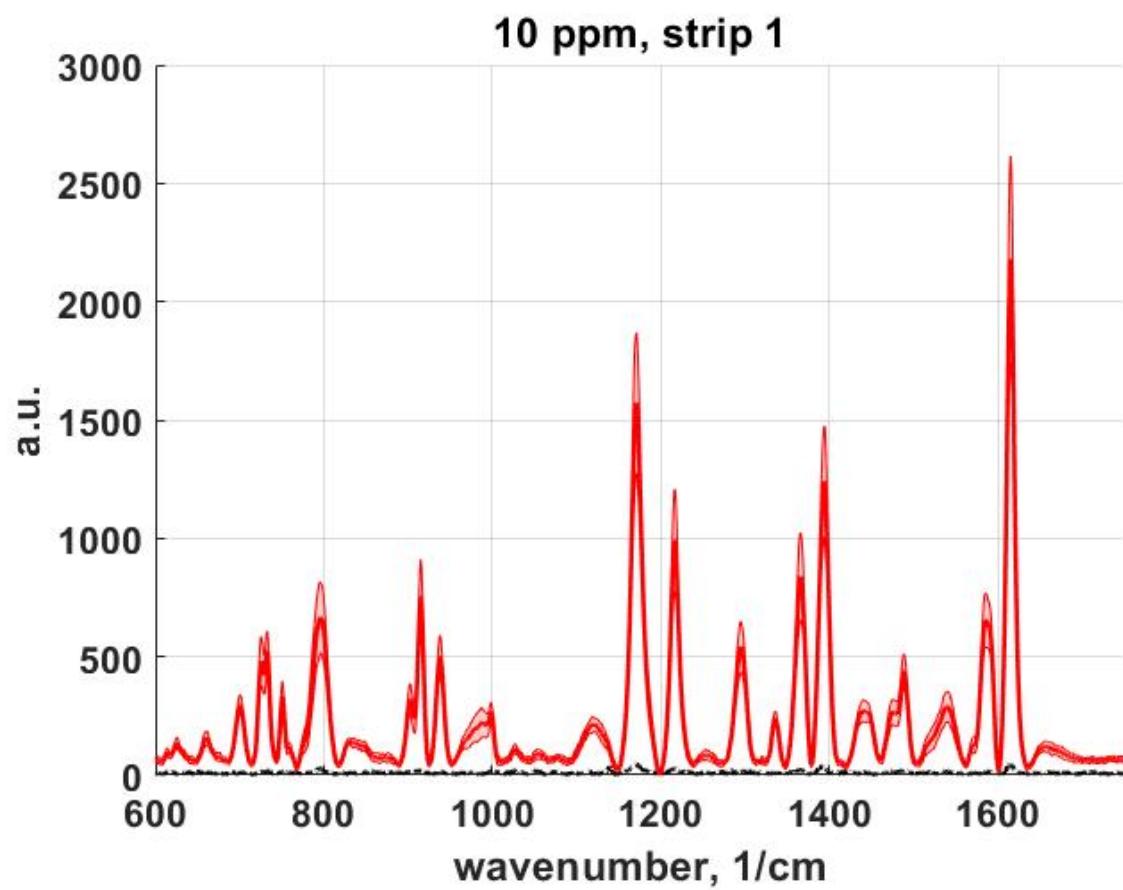
<sup>2</sup> N.N. Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, 119991 Moscow, Russia; oxana.rodionova@gmail.com (O.R.); andreikostrov@rambler.ru (A.K.)

\* Correspondence: lizunova.aa@mipt.ru



**Figure S1.** Normalized absorbance and fluorescence spectra:

1. Absorbance. Dry RhB layer on the glass substrate
2. Absorbance. Dry MG layer on the glass substrate
3. Absorbance. MG in ethanol solution (30  $\mu$ M)
4. Fluorescence. Dry MG layer on the glass substrate
5. Absorbance. RhB in ethanol solution (45  $\mu$ M)
6. Fluorescence. RhB in ethanol solution (45  $\mu$ M)



**Figure S2.** SERS signal of MG and RhB 10 ppm dye film under excitation at 785 nm measured from the GNP strip 1 (red curve) and on the dye film surface without gold nanostructure (black curve).