

## Modification techniques of Ag SERS-active surface to promote differently charged analytes adsorption

B.V. Ranishenka <sup>1\*</sup>, A.Yu. Panarin <sup>2</sup>, I.A. Chelnokova <sup>3</sup>, S.N. Terekhov <sup>2</sup>, P. Mojzes <sup>4</sup>, V.V. Shmanai <sup>1</sup>

<sup>1</sup> *Institute of Physical Organic Chemistry, National Academy of Sciences of Belarus, 13 Surganova Str., Minsk, 220072, Belarus*

<sup>2</sup> *B. I. Stepanov Institute of Physics, National Academy of Sciences of Belarus, 68 Nezavisimosti Ave., 220072, Minsk, Belarus*

<sup>3</sup> *Institute of Radiobiology of NAS of Belarus, Feduninskogo st., 4, 246007, Gomel, Belarus*

<sup>4</sup> *Institute of Physics, Charles University, Ke Karlovu 5, CZ-121 16 Prague 2, Czech Republic*

\*corresponding author: ranishenka@gmail.com

### Characterization of silver nanostructures

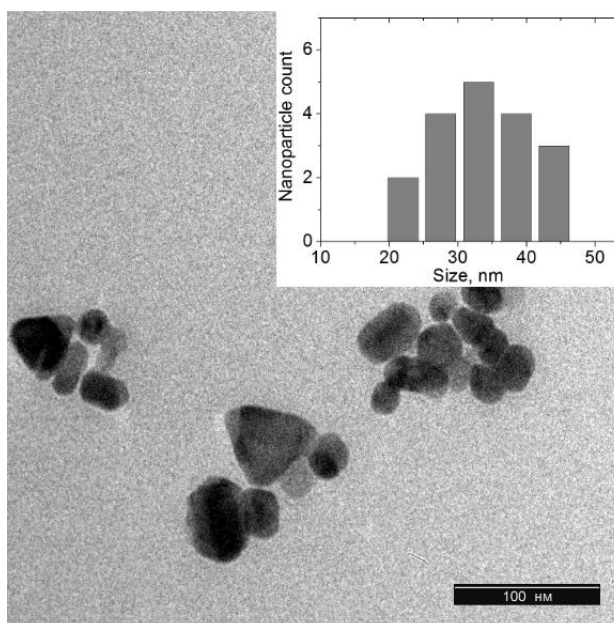


Figure S1. TEM image of silver nanoparticles and corresponding size distribution histogram. TEM sample was prepared by simple drop-casting technique.

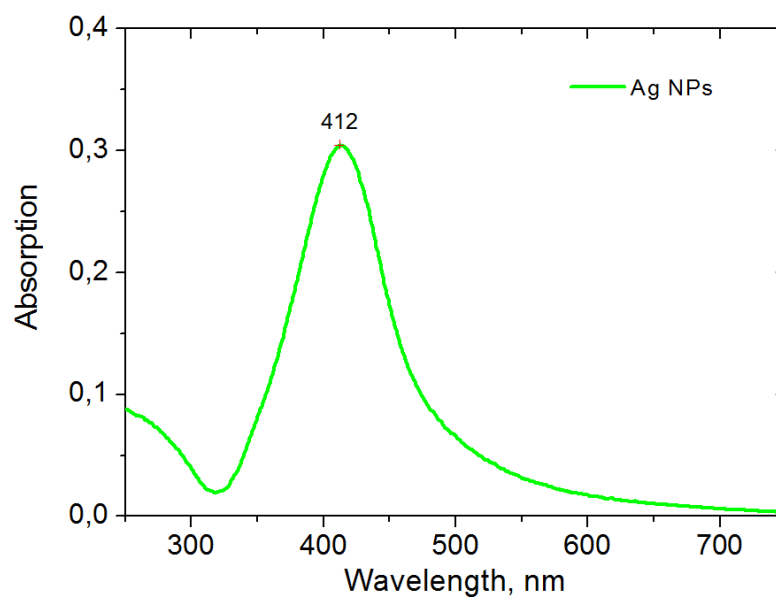


Figure S2. Extinction spectrum of the colloidal silver NPs.

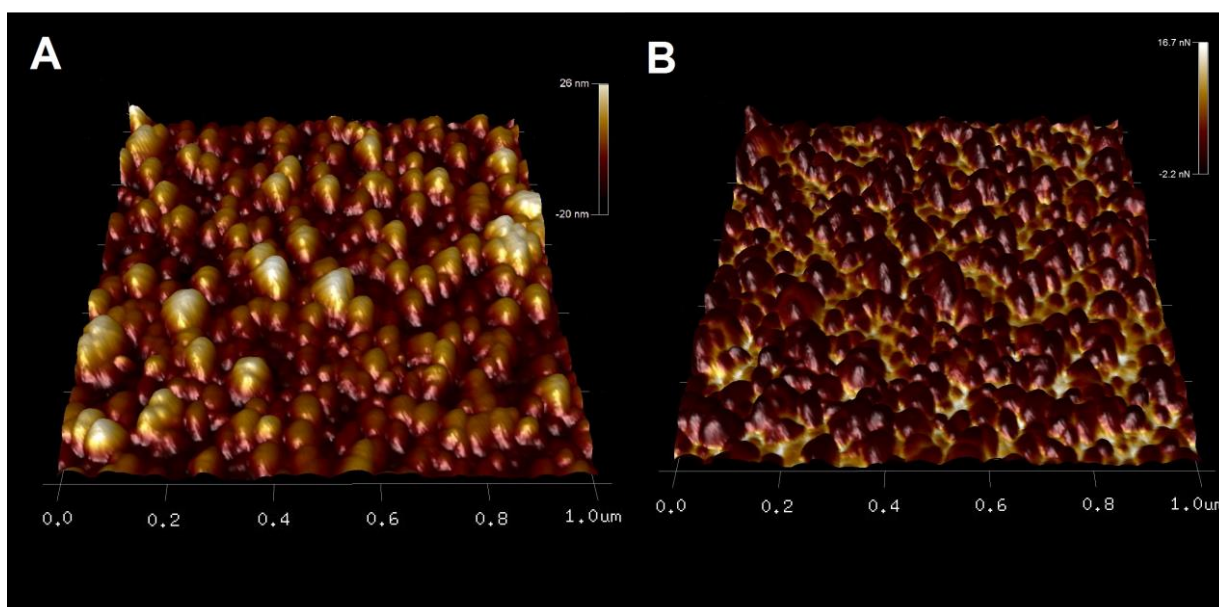


Figure S3. AFM images of silver NPs immobilized on PEI-modified silicon support: A) topological map; B) adhesive properties map (scan size of  $1\mu\text{m}\times 1\mu\text{m}$ ; scan rate of 0.5 Hz (256 lines); PeakForce Setpoint of 0.5 nN).