**Dear Professor Ross,**

**With respect to the comments of the referees regarding our manuscript “Chemical approach to fabrication of semicontinuous Au nanolayers for SERS applications”, we have read them carefully and offer this point-by-point response:**

Reviewer C:

This paper is good, results can be applied. Nevertheless, I have some recommendations or questions.

1) Description of Au nanolayers contains quite old reference (Turkevich, 1951), wich is not available to all readers. In my opinion, it would be better to describe chemical preparation of Au nanolayers step by step, inclusive this Turkevich method, more detailed.

The Turkevich method is one of the most known methods for reproducible synthesis of uniform gold nanoparticles. Therefore, considering limited space for this article, we believe that it is not necessary to provide details in this paper. The given old reference is the original paper describing this method, however to satisfy reviewer authors have exchanged it with more recent reference discussing this method.

2) Which interactions play a role in adhesion of AuNPs to modified silane surface? It is not a chemical bond, there is no -SH groups for chemical grafting of AuNPs.

Functional groups such as amines and thiols have lone electron pairs that can coordinate to the surface of gold. However, alkylamines exist predominantly as positively charged R-NH3+ groups at values of pH < 10. Therefore, in case of NH2- groups adhesion of AuNPs to modified silane surface is rather due to electrostatic interactions than coordination.

3) Next question deals with removal of impurities from glass surface. Authors write (6th paragraph): ? Preparation of functionalized glass slides was performed by cleaning them with base piranha. In addition to removal of any impurities from the glass surface, treatment with strongly basic medium leads to activation of the surface silanol bonds before surface modification.? It is quite misleading. Expression ?in addition? Treatment with strongly basic medium..? evoke imagination some other basic medium, except piranha, was applied. If yes, authors should attach information about this other medium.

Authors have attempted to be more precise and introduce some small changes to the problematic statement. When we talk about „strongly basic medium” we mean „base piranha”. There was no other medium used for the cleaning-activation step.

4) Why the SERS signal (Fig. 4) for sample F is much less significant in comparison with signal for sample E? it can be also answer for quite different roughness and morphology of samples F in comparison with C, D and E in Fig. 2. And why signal for sample E is too significant in comparison with C and D (Fig. 4) when all these 3 samples have the same roughness and morphology (Fig. 2)?

Difference in SERS signal for sample F and E is likely related to the different roughness and morphology, which is expressed in their UV-Vis spectrum – large extinction in broad spectral range (Fig 3.) It is shown that for sample F we have significantly larger extinction than for other samples. This may be related to larger amount of gold deposited on the surface in case of F and thus more continuous layer and lower number of hot spots. Lower roughness of F results also in increase of scattering fraction of extinction. The same applies to differences between samples E, C and D. On Fig 2. it is clearly seen that these three sample have different roughnesses and morphologies what is expressed in their optical properties and also SERS signal enhancement (Fig 3.)

Reviewer D:

The authors present a chemical approach for fabrication of semicontinuous

gold nano-films on glass slides in order to test their surface enhanced

Raman scattering (SERS) properties. The SERS properties of gold films were

tested by using p-mercaptoaniline and a maximum estimated SERS enhancement

factor greater than 1 million was achieved. The paper is well written and

deserves to be published as a rapid report in Photonics Letters of Poland. A

minor typo (0,5% - p.2) should be corrected

Authors have corrected typo.

Sincerely,