**Reviewer #1:**  
*Manuscript Summary:*  
N/A  
  
*Major Concerns:*  
N/A  
  
*Minor Concerns:*  
N/A  
  
*Additional Comments to Authors:*  
The article is interesting and deserves publication. Though, there are recommendations of minor improvements: 1) Whereas is Figure 1 a detailed measurement of hole sizes is presented this is not done for the result obtained in Figure 5. The quality of the SEM photo in Fig. 5d after Oxygen plasma and wet I2 etching is not allowing a meaningful comparison.

Since the GNP size is 20 nm, the thickness of the photoresist film after the O2 plasma etching is less than 20 nm. Thus, removal of 80 nm thick portion of the resist film (out of initial 100 nm thick film) is necessary so that GNPs are exposed to the I2 etch solution. Such a thinned PMMA resist film (Figure 5c and 5d) is a very delicate and is affected by the process of SEM imaging itself, reducing the contrast and the edge definition. This would not be the case for other chemically amplified resist showing higher etch resistance than PMMA.

Further, as obvious from Figure 5c there are large deviations of the gold particle positions from the desired position. This probably is due to the fact that 20nm diameter gold particles were used for 80nm diameter pattern holes. This leads as shown in Figure 3 to multiple gold particles within the 80nm diameter pattern holes.

We agree.

Therefore the wording "One Au NP on the positive charged derivative surface inside the hole" is desirable but not shown in the drawing and also not in the SEM images.

The proposed innovation might work if the size of the gold particle is such that indeed only a single gold particle is fitting inside the pattern hole, e.g. for 80nm diameter pattern holes the diameter of the gold particle should be more than 40nm.

We agree that this would be desirable. Our objective here was to show that even 4X nanoparticle diameter contact holes could be repaired. The method would be expected to work even better when the hole size is closer to the particle size.

Further, the method is shown with PMMA resist for which a very high exposure dose is needed. A EUV or e-beam industrial application would work with a resist (e.g. pCAR) having much lower dose and thus exhibiting much more prominent shot noise influendes. With this, the benefit of the innovation could be presented more clearly. Though, as this would mean more major work probably not possibile within the present funded project, such recommendations might be mentioned in the minor revision of the article.

We agree with this excellent suggestion. This would be a subject of our future studies.