EDITORIAL COMMENTS
/Corrections/
There are a few instances of /we/. Please rewrite in third person.

The discussion should be rewritten in third person.

In the Protocol, step 2.5, /in tact/should be one word /intact/.

These three issues have been corrected, we thank the editor for bringing them to our attention.

REVIEWER #1

Comment 1. The abstract needs to be rewritten and simplified to highlight the key points. In addition, please briefly illustrate why gold was chosen from noble metals as the material for preparing hollow nanotubes.

Response 1: We have simplified the abstract, while still maintaining adequate discussion the technique and its applications as requested by the journal. The use of gold is based on its well-established and favourable plasmonic properties, as mentioned in the short abstract and introduction.

Comment 2. To prove that every step is an effective deposition, please give the photos of samples after each deposition step in figure 1.

Response 2. It is difficult to capture the subtle colour changes in some of the steps using a camera, but we have added additional pictures after each deposition.

Comment 3. The reasons for collapse of polymer core need to be specified. Otherwise, the explanation to the choice of polymer and its morphology in the discussion part is a little ambiguous. Please illustrate the collapse mechanism or cite similar works elsewhere.

Response 3. We have expanded the discussion, and cited a paper which outlines the collapse mechanism in detail.

Comment 4. The captions of A and B in figure 5 seems not match what are shown by these images. Furthermore, why the image A was taken by TEM and the others were taken by SEM? Please explain the differences briefly in the part of representative results.

Response 4. The SEM image is taken from an aligned array mounted on a gold base. This sample can not be imaged by TEM. A more thorough

description of this is added, and the captions have been clarified.

REVIEWER #2

Comment 1. Abstract: Application examples
The referee guideline indicates that an extensive coverage of application fields is desired by the journal. In this context, the manuscript is solely focused on the optical properties of the metal nanostructures and applications based thereon. But besides SERS and plasmonic applications, gold nanotubes have also been used in permselective transport [see e.g. Analyst 127 (2002), 871-879] (however, flexible polymer templates are used in these cases, probably related experiments cannot be performed properly with AAO-embedded nanostructures), in catalysis [see e.g. Angew. Chem. Int. Ed. 43 (2004), 1140-1142], in microfluidics [e.g. J. Am. Chem. Soc. 129 (2007), 7620-7626] or in electroanalysis [see e.g. Anal. Chim. Acta 525 (2004), 221-230].

Response 1: We have added discussion of these applications in the introduction, and included these references, and thank the reviewer for bringing this to our attention.

Comment 2. Introduction: Synthesis of metal nanotubes in AAO templates
The manuscript only names the use of polymer-modified AAO templates for the fabrication of gold nanotubes. However, numerous approaches towards these structures exist which can compete with the characteristics of the presented technique. In order to provide a general view on the topic, the authors should at least include other flexible and powerful tools for metal nanotube preparation in AAO, for instance the assembly of pre-synthesized nanoparticles on modified AAO walls [Chem. Mater. 17 (2005), 3743-3748], metal-nanoparticle guided electrodeposition [Angew. Chem. Int. Ed. 44 (2005), 6050-6054], diffusion-controlled electrodeposition from viscous aprotic solvent [Chem. Commun. 46 (2010), 940-942], electroless plating [J. Nanosci. Nanotechnology 4 (2004), 605-610], reduction of sol-gel-derived precursor structures [Nanotechnology 17 (2006), 5106-5110] or straightforward electrodeposition [Adv. Mater. 21 (2009), 4619-4624].

Response 2: We have added discussion detailing these additional methods to synthesize gold nanotubes.

REVIEWER #3

/Major Concerns/

Comment 1. The authors do not mention anything about agglomeration of the

gold nanowires upon release into solution. How stable are these solutions? Do the wires agglomerate? This is a very important issue.
What are the mechanical properties?

Response 1: The gold nanotubes aggregate in solution after several minutes or hours depending on their size, however this is reversible upon gentle sonication. We have added text to address this issue. The mechanical properties are unknown at this point, as it was not a focus of this study.

Comment 2. The quality of the images is not sufficient to be published. Figure 1 could be dramatically enhanced. Figure 2 is pixelated. Figure 3 is missing the axis captions. Figure 4 same thing. Figure 5 is non existing and it is probably the most important figure.

Response 2. Our version of the figures 2-4 do not appear pixilated and have axes labels, and figure 5 is present in our files. We have re-converted all images to .psd files and double-checked their compatibility, and improved figure 1.

/Minor Concerns/

Comment 1. It will be interesting to see the chronoamperograms to have more information about the deposition process. Figure 2 is mentioned before than Figure 1.

Response 2. We have included typical chronoamperograms for the polymer deposition and gold shell deposition.