

**Review Form 1.7**

Journal Name:	<b>Asian Journal of Applied Chemistry Research</b>
Manuscript Number:	<b>Ms_AJACR_116728</b>
Title of the Manuscript:	<b>Transmission Electron Microscopic and X-ray Diffraction Based Crystallographic Bibliography Comparison of Silver, Copper and Titanium Functional Nanocrystals: A Statical Review</b>
Type of the Article	<b>Review</b>

## Review Form 1.7

### PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p><b>Compulsory</b> REVISION comments</p> <p>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</p> <p>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</p> <p>3. <b>Is the abstract of the article comprehensive?</b></p> <p>4. <b>Are subsections and structure of the manuscript appropriate?</b></p> <p>5. <b>Do you think the manuscript is scientifically correct?</b></p> <p>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></p> <p><b>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</b></p>	<p>Yes. It compares the properties of three metallic materials, and this will assist in materials selection for device design</p> <p><b>Yes</b></p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	
<p><b>Minor</b> REVISION comments</p> <p>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></p>	<p>Yes</p>	
<p><b>Optional/General</b> comments</p>	<p><b>Title</b></p> <p>Okay</p> <p><b>Abstract</b></p> <p>Okay</p> <p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>➤ A lot of statements with the same meaning were repeated in this section</li> <li>➤ Constant repetition of reference numbers within statements should be avoided. For example, from lines 1 to 4, only one reference number is okay. Ditto for lines 4-7. <b>LIKE:</b> Materials with a crystalline arrangement of atoms or molecules that are structured at the nanoscale are known as crystalline nanomaterials. Due to their diminutive dimensions and expansive surface area, they often exhibit unique properties that render them valuable across diverse sectors such as electronics, healthcare, and energy storage. The mechanical strength, wide surface area, superior electrical conductivity, customizable optical qualities, thermal stability and conductivity and customizable chemical reactivity are just a few of the benefits that crystalline nanostructures have to offer [2]. <b>Correct all</b></li> </ul> <p><b>Materials and Methods</b></p> <ul style="list-style-type: none"> <li>➤ <b>Recast this statement:</b> Nanoparticles have been synthesized via a variety of methods with different precursors for titanium nanoparticles precursors like titanium tetrachloride (TiCl<sub>4</sub>).</li> </ul>	

## Review Form 1.7

	<p>Titanium isopropoxide (TTIP), Tetrabutyl Titanate; for silver nanoparticle precursors like <math>\text{AgNO}_3</math>; for copper nanoparticles precursors like <math>\text{CuSO}_4</math>, <math>\text{Cu}(\text{NO}_3)_2</math>, <math>\text{CuCl}_2</math> etc are used. Nanoparticles have been synthesized via variety of methods with different precursors. For titanium nanoparticles, precursors like titanium tetrachloride (<math>\text{TiCl}_4</math>), Titanium isopropoxide (TTIP), Tetrabutyl Titanate have been used. <math>\text{AgNO}_3</math> have been used as silver nanoparticle precursors. In case of copper nanoparticles, precursors like <math>\text{CuSO}_4</math>, <math>\text{Cu}(\text{NO}_3)_2</math>, <math>\text{CuCl}_2</math> etc are used.</p> <ul style="list-style-type: none"><li>➤ Reference need to be made to figure 1 in the text. No statement of such exist.</li></ul> <p><b>Characterization</b></p> <ul style="list-style-type: none"><li>➤ <b>Recast this statement:</b> The crystallographic textures of any nanocrystal were investigated by XRD and TEM which were explored [33-37] in Table 2.</li></ul> <p>XRD and TEM were employed in investigating crystallographic textures of nanocrystal and has been explored in this review, as indicated in Table 2 [33-37].</p> <p><b>Results and Discussions</b></p> <ul style="list-style-type: none"><li>➤ The discussion on Cu crystal should start on a new paragraph for clearness</li><li>➤ Authors must indicate clearly which figure they are referring to. For example, when referring to the XRD spectra of pure Cu, the figure is Fig 1(b)</li><li>➤ “(111) &gt; (200) &gt; (220) &gt; (311) &gt; (222)” Authors should recast this to reflect their intention. I presume the authors meant ascending order.</li><li>➤ Meanwhile, only three peaks are visible in Fig 2(b) [Cu XRD spectra] which is contrary to the claim of six (6) peaks by the authors.</li><li>➤ It is strongly recommended that authors should insert the miller indices (hkl) on each of the peaks in Fig 1(c) for clarity</li><li>➤ The resolution of the images in Fig 1 should be improved</li><li>➤ I suggest that the calculation of lattice volume for the three materials be done distinctly for clarity</li></ul> <p><b>References</b></p> <p>Authors should be consistent with referencing style. For instance, some journal names were written in full while others were abbreviated.</p>	
--	--	--

**Review Form 1.7**

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

Name:	<b>Olasanmi Oluwatoyin Olanakanmi</b>
Department, University & Country	<b>University of Ilorin, Nigeria</b>