



**SDI Review Form 1.6**

|                          |                                                                   |
|--------------------------|-------------------------------------------------------------------|
| Journal Name:            | <a href="#">Journal of Materials Science Research and Reviews</a> |
| Manuscript Number:       | <b>Ms_JMSRR_45389</b>                                             |
| Title of the Manuscript: | <b>THERMOELECTRIC PROPERTIES OF Zn-DOPED CdO</b>                  |
| Type of the Article      | <b>Original Research Article</b>                                  |

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

**PART 1: Review Comments**

|                                     | <b>Reviewer's comment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Author's comment</b> (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)                                                                                                          |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Compulsory</b> REVISION comments | <p>This article reports simulation work to predict thermoelectric properties of CdO and Zn-doped CdO. They have performed molecular design and calculate the properties using DFT approach.</p> <p>The used of DFT to study the electronics and thermoelectric properties have been reported by many researchers such as; 1) Do Duc Cuong et. al., Density Functional Theory study on the electronic structure and thermoelectric properties of strained Mn<sub>4</sub>Si<sub>7</sub>, (2016), 2) Sardar Ahmad et. Al., DFT studies of thermoelectric properties of R–Au intermetallics at 300 K, (2018).</p> <p>Therefore, the approach is not novel a part from the calculation have been performed on CdO and Zn-doped CdO.</p> <p>In addition, the studies on Zn-doped CdO only reported on its power factor.</p> <p>In my view, more intensive work need to be done in order to make it valuable and significant to the scientific community.</p> | The scope of this paper is on thermoelectricity and therefore we would wish to focus on thermoelectric properties. Zn was used as dopant because its ionic radius (0.074nm) is slightly less than that of Cd <sup>2+</sup> (0.095nm) hence the zinc ions would easily fit into the CdO matrix |
| <b>Minor</b> REVISION comments      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                               |
| <b>Optional/General</b> comments    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                               |

**PART 2:**

|                                                     | <b>Reviewer's comment</b>                                             | <b>Author's comment</b> (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) |
|-----------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Are there ethical issues in this manuscript?</b> | (If yes, Kindly please write down the ethical issues here in details) | NO ethical issues in this manuscript.                                                                                                                                                |