



**SDI Review Form 1.6**

Journal Name:	<a href="#">Journal of Materials Science Research and Reviews</a>
Manuscript Number:	<b>Ms_JMSRR_47105</b>
Title of the Manuscript:	<b>Study on Electrical, Optical Properties of ZnSe thin film using sol—gel dip Coating techniques.</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>)



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**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)
<b>Compulsory</b> REVISION comments	<ol style="list-style-type: none"> <li>The article title must be changed to “<b>Study on Electrical, Optical Properties of ZnSe/SiO<sub>2</sub> composite thin film using sol-gel dip Coating techniques</b>” because this study about the ZnSe/SiO<sub>2</sub> composite (as mention in the methodology part) not on ZnSe compound. Also, all expressions of “ZnSe film” must be changed to “ZnSe/SiO<sub>2</sub> composite film” in the whole manuscript.</li> <li>The introduction part needs to more details and support with more references, especially for the semiconductor composites.</li> <li>The author should be performing a grazing X-ray diffraction for all prepared composite thin films to ensure and illustrate a composite phase analysis firstly, then estimate each film particle size from X-ray patterns.</li> <li>The author mentioned explanation about FESEM of 5%, 10% and 15% molar ratio samples in the text without adding its images in the manuscript that showing a nanoparticle phase, so it is necessary to add FESEM images for all composites of ZnSe/SiO<sub>2</sub> (molar ratio prepared from 5% to 20%) to confirm the author idea explanation about the formation of embedded ZnSe inside SiO<sub>2</sub> matrix, also a remarkable scale on blank image of pure SiO<sub>2</sub> (Fig.1a ) and all images must be illustrate.</li> <li>The author mentioned “crystallite size” in the Table 3 caption and mentioned “grain size” in the title of first column, it should standardize terminology. What is the tool used by author to obtain the grain size values that found in Table 3? Also, what the molar ratio of prepared films of these grain sizes? It should be adding a column of sample molar ration in Table 3.</li> <li>In the electrical part, it is not clear what molar ratio (5%, 10%, 5% or 20%) used to study? There must be accurate in identifying the sample used for each measurement. In FESEM study author used blank and 20% molar ratio of ZnSe/SiO<sub>2</sub>, then used 5% in EDX results and no film molar ratio mentioned in electrical study.</li> </ol>	<p>I am very much thankful to the reviewers for their deep and thorough review. I have revised my present research paper in the light of their useful suggestions and comments. I hope my revision has improved the paper to a level of their satisfaction.</p> <ol style="list-style-type: none"> <li>The title was changed to “<b>Study on Electrical, Optical Properties of ZnSe/SiO<sub>2</sub> composite thin film using sol-gel dip Coating techniques</b>”.</li> <li>The new relate 9 references added in the revised introduction.</li> <li>X – ray diffraction was added in revised manuscript.</li> <li>FESEM of all molar ratio was added in revised manuscript.</li> <li>The crystallite grain size of the ZnSe/SiO<sub>2</sub> thin film was calculated using the Scherrer's formula.</li> <li>Molar ratio in the electrical part was added in revised manuscript.</li> </ol>
<b>Minor</b> REVISION comments	<ol style="list-style-type: none"> <li>What the effect of annealing temperature (500 °C) on the film thickness?</li> </ol>	<ol style="list-style-type: none"> <li>Annealed samples are showing better optical properties, because it is observed that the value of conductivity increases. Also, conductivity is found to be less for films having smaller particle size. The photoconductivity is found to increase with increase in particle size on annealing the film</li> </ol>
<b>Optional/General</b> comments		

**PART 2:**

	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)
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	