

### Review Form 3

Journal Name:	<b>Journal of Materials Science Research and Reviews</b>
Manuscript Number:	<b>Ms_JMSRR_123352</b>
Title of the Manuscript:	<b>Improving the Electronic and Optical Properties of Graphene-Based Biosensors by Structural Modifications through modelling.</b>
Type of the Article	

#### **General guidelines for the 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 guidelines for the Peer Review process, reviewers are requested to visit this link:

<https://r1.reviewerhub.org/general-editorial-policy/>

#### **Important Policies Regarding Peer Review**

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**PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	Tool based castep study of graphene Optical , electrical studies of graphene Mono, bilayer studies of graphene Enhancing the performance with doping DOS studies, few UV visible spectral studies	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes suitable	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	Comprehensive only	
Are subsections and structure of the manuscript appropriate?	Subsections are clear but as per my view is concerned incorporate more comparison results. In 2.1 expand (OTFG) Why Density Functiona Theory(DFT) calculations only chosen to study the methodology?	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	<p>1.Study of graphene based structures are considerable journals</p> <p>2.Though Considerable studies are on there on band gap studies tool based software based tool studies gave more significant impact for scientifically accepted results.</p> <p>3. as in Figures 1: (a) Band structure of Monolayer and (b) Bilayer must be high resolution pictures .</p> <p>With respect to Figures 2: (a) Density of State of Bilayer with Vacancy and, (b) Monolayer doped with Aluminium a clear y –axis parameter must quoted.</p> <p>Legends neede . figures high resolution pictures must be refered.</p>	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	If more references are incorporated it will be more considerable.	
Minor REVISION comments  Is the language/English quality of the article suitable for scholarly communications?	Language representation is good and sufficient for the scholarly to communicate	

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<b>Optional/General</b> comments	Figures 3: (a) Refractive index of Monolayer ..how Refractive index (n) is calculated from figure 3? Is there any analytical formulae / equation to calculate conductivity, refractive index, dielectric constant ? if author mention it gives more authenticated studies	
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### 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)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

### Reviewer Details:

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