



SDI Review Form 1.6

Journal Name:	Journal of Materials Science Research and Reviews
Manuscript Number:	Ms_JMSRR_47808
Title of the Manuscript:	Activated Carbon for Electrochemical Supercapacitor and Water Filter
Type of the Article	Technical report

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

	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)
Compulsory REVISION comments	<p>This work requires some revisions before it can be accepted for publication.</p> <ol style="list-style-type: none"> 1- Why the author jumped to call the cell assembly "Super capacitor " ? no evidence before such claim was presented to call it this way? 2- The authors should have presented CV studies before EIS studies because the CV in Figure 7 shows that the assembly possess a tangible capacitive current. I don't know if this capacitive current large enough to call it super capacitor or Not. So CV and other electrochemical techniques should come before EIS. 3- In EIS the vertical line in Nyquist plot is evidence of charge saturation, but also there is a diffusional section in this plot (being ignored). 4- The authors did not show CV or EIS for NiO Filter to see what difference was made by covering it with activated carbon? What was the porosity of the electrode? 5- Using modern techniques without depth in analysis is not enough to give weight to the research work, some calculation can be made to get diffusion coefficient, relaxation time ...etc are needed. 	<p>The following are our responses to the points raised:</p> <ol style="list-style-type: none"> 1. The authors did not call the cell assembly real supercapacitor; instead the as-produced electrode was assembled to mimic a capacitor for easy characterization as stated in the "Materials and Methods" section 2. The authors carried out these characterizations to ascertain the inherent characteristics/properties of the as-produced electrode and based on the obtained results recommend the as-produced electrode for use in supercapacitor configuration. 3. The authors are not interested in the diffusional section. 4. The authors have used NiO as inclusion for the activated carbon because of its good electronic properties to better the characteristics of the activated carbon. 5. The authors would dwell into such calculations in their future works. Thank you for your tangible observations.
Minor REVISION comments		
Optional/General comments		



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PART 2:

	<u>Reviewer's comment</u>	<u>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)</u>
<u>Are there ethical issues in this manuscript?</u>	<u>(If yes, Kindly please write down the ethical issues here in details)</u>	