

**BPI Review Form 070520**

Book Name:	<b><u>Current Innovations in Chemical and Materials Sciences</u></b>
Manuscript Number:	<b>Ms_BP_7875C</b>
Title of the Manuscript:	<b>Effect of ca+2 addition on the properties of ce0.8gd0.2o2-δ for itsfc</b>
Type of the Article	<b>Book chapter</b>

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**PART 1: Review Comments**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (If agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. Authors must write his/her feedback here)
Is the manuscript important for the scientific community? Please write a few sentences explaining your answer	Yes, the addition of Ce <sup>2+</sup> really helps to improve GDC electrolyte	
Is the title of the article suitable? Do you have any alternative Title in your mind?	I suggest a new title , The effect of Ca <sup>2+</sup> addition on the properties of Ce <sub>0.8</sub> Gd <sub>0.2</sub> O <sub>2-δ</sub> (GDC) electrolyte for it-sofc	
Is the abstract of the article comprehensive? If your answer is No, please provide suggestions	Yes	
Do you think the English quality of the article is suitable for scholarly communications? If your answer is No, please provide suggestions	Yes	
Please provide your comments regarding the appropriateness of different sections of the manuscript.	<ol style="list-style-type: none"> <li>1. The number and unit dimension must be separated with a space eg. 1400 °C.</li> <li>2. Please use proper subscript for chemical compound, eg. CaCO<sub>3</sub>.(page 2).</li> <li>3. Please provide parameters used in characterization instrument under section 2. Experimental (page 2).</li> <li>4. Which peak shows the lattice expansion? (page 3).</li> <li>5. How you calculate crystallite size? if you use Scherrer equation, please provide the formula in section 2. Experimental (page 3)</li> <li>6. Please show Archimedes principle calculation (page 3)</li> <li>7. FESEM image is too small. It is difficult to see the image magnification, scale of the image and power used to take the image (page 4)</li> <li>8. Please provide the table of element composition for each sample (a) to (d) from EDAX result. The figure is too small.(page 4)</li> <li>9. Does the peak band at 471 cm<sup>-1</sup> increase / decrease / constant with the addition of CeO<sub>2</sub> to GDC? (page 5)</li> <li>10. Is it possible to measure the number of oxygen vacancies on a sample via TPRDO (temperature reduction oxygen) instrument? (page 8)</li> <li>11. Table 2 gives...(page 9)</li> <li>12. 1 decimal place is more preferable in this article (page 10)</li> <li>13. The conclusion is too short. In conclusion, please write the effect of the additional of Ca<sup>2+</sup> in GDC with respect to electrical properties and blocking factor.(page 10)</li> </ol>	
Do you think that the references in the manuscript are proper, recent and sufficient? If you have any suggestions, please write here.	<p>The references are not uniform:</p> <ol style="list-style-type: none"> <li>1. Reference [29] use full journal names whereas other journals are written in abbreviation.</li> <li>2. Some journal have the list authors with "and" and some don't. Ref [1] to [3] don't have "and"</li> <li>3. Why only reference [14] has doi but the rest don't have doi.</li> </ol>	

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**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>Azman Maamor</b>
Department, University & Country	<b>Universiti Malaya, Malaysia</b>