



**SDI Review Form 1.6**

Journal Name:	<b><u>British Journal of Applied Science &amp; Technology</u></b>
Manuscript Number:	<b>Ms_BJAST_32597</b>
Title of the Manuscript:	<b>Alkaline Solvolysis of Poly(ethylene terephthalate) in Butan-1-ol Media: Kinetics and Optimization studies</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>)



SDI Review Form 1.6

**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	<p>Line 80: What is the quantity of butan-1-ol? Does the concentration of butan-1-ol affect?</p> <p>Line 189: Please insert the references related to the melting points. I do not believe that the melting point of terephthalic acid (pure) is between 300 and 402 °C. Is it true?</p> <p>Line 248: What happened to a region between 5-12 minutes of the chromatogram? What about the region 0-5 minutes?</p>	<ol style="list-style-type: none"> <li><b>Line 80:</b> 100 cm<sup>3</sup> of 40g/L NaOH in Butan-1-ol was used. Butan-1-ol was used as the solvent here (instead of water). From the chemical reactions presented for the solvolysis reaction, the alcohol merely serves as the solvent (and not as a reactant)</li> <li><b>Line 189:</b> A reference for this is Venkatachalam <i>et al</i> (2012) and this has been included in the reference list. Most of the online (and literature) sources I have come across on terephthalic acid (TPA) indicate that TPA starts to melt at around 300 °C and sublimes at 402 °C</li> <li><b>Line 248:</b> From the chromatogram, the region 5 – 12 min may be said to be unresolved low molecular weight compounds. In this work, the emphasis is on butanol derivatives and other compounds of masses heavier than butanol. The region 0 – 5 minutes was omitted from the chromatograph for the same reason.</li> </ol>
<b>Minor</b> REVISION comments	<p>Line 134: What does EG mean? Make it clean in the text before using initials.</p> <p>Line 157: Where is the equation 12? I believe that you mean 11.</p> <p>Line 265: Could you add the molecular ion peaks?</p>	<p>Line 134: EG is ethylene glycol. This has been added to the manuscript.</p> <p>Line 157: The equation numbers have been adjusted accordingly.</p> <p>These were not added to the table as they are already on the chromatograph.</p>



**SDI Review Form 1.6**

<b><u>Optional/General</u></b> comments	What are the advantages of using butan-1-ol instead of methanol and ethanol?  Suggestion: I recommend using microwave oven in a future work as heating source.	Butan-1-ol was found to give a higher conversion of PET, compared to methanol and ethanol as shown in our previous work [ <b>Sanda et al. (2016) American Chemical Science Journal, 16(1): 1-14</b> ]  Microwave-assisted solvolysis of PET is currently under study in our lab
---	--	---