Correction: Paccha-Herrera et al. Thermal Modeling Approaches for a LiCoO$_2$ Lithium-ion Battery—A Comparative Study with Experimental Validation. Batteries 2020, 6, 40

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The authors wish to make the following corrections to their paper [1]:

1. Error in Table

In the original article, there was a mistake in Table 9 as published. Inner thermal resistance (KW$^{-1}$) value should be 1.8. The corrected Table 9 appears below. The authors apologize for any inconvenience caused and state that the scientific conclusions are unaffected. The original article has been updated.

Table 9. Properties of materials for lumped and 3D-CFD models.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Lumped</th>
<th>3D-CFD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density ($kgm^{-3}$)</td>
<td>2550 a</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Specific heat ($Jkg^{-1}K^{-1}$)</td>
<td>1197 b</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Thermal conductivity: radial, tangential, axial (Wm$^{-1}K^{-1}$)</td>
<td>0.8, 27, 27 [38]</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>Inner thermal resistance (KW$^{-1}$)</td>
<td>1.8 b</td>
<td>✓</td>
<td>x</td>
</tr>
</tbody>
</table>

a Computed. b Parameter estimation.

2. Text Correction

There was an error in the original article. The formula for specific heat $c_p$ is badly written. It should be $c_p = m^{-1}C_p$.

A correction has been made to Materials and methods, Heat Capacity and Internal Thermal Resistance, Paragraph two:

Following a similar procedure proposed by Bryden et al. [1], the next stage was to estimate $C_p$ and $R_{th}$ from Equation (3) by fitting the initial section of the measured cell temperature (see Figure 10a), where the temperature gradient is greater. This region was taken for the first 2700 s. Parameters obtained from this section are given in Table 8. Then, specific heat is obtained by $c_p = m^{-1}C_p = 1197 Jkg^{-1}K^{-1}$. The aforementioned authors reported values of $R_{th} = 1.4 KW^{-1}$ and $c_p = 1169 Jkg^{-1}K^{-1}$ for a 26,650 LFP battery.

The authors apologize for any inconvenience caused and state that the scientific conclusions are unaffected. The original article has been updated.

Reference