

# OSU Rate of Heat Release Apparatus SYSTEM CALIBRATION REPORT

<b>CALIBRATION INFO</b>	<p>Laboratory: MOTISTECH</p> <p>Calibration date/time: 2021-4-6      10:08 AM</p> <p>Technician: LJF</p> <p>File Name: 2106041245</p>																																	
<b>GRAPH</b>	<p>The graph displays the thermopile signal in millivolts (mV) over a 1501-second period. The signal starts at approximately 18 mV, remains relatively stable with minor fluctuations, and exhibits several distinct, sharp increases to about 28 mV. These spikes occur roughly every 100 seconds, corresponding to the calibration steps described in the settings section.</p>																																	
<b>CALIBRATION RESULTS</b>	<p><b>SETTINGS</b></p> <p>Ambient temperature (°C): <b>24.5</b></p> <p>Ambient atmosphere pressure (mmHg): <b>760</b></p> <p>Water vapor pressure (mmHg): <b>0</b></p> <p>Wet test meter water temperature (°C): <b>24.5</b></p> <p>Measured methane flow rate:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1 L/min</td> <td>4 L/min</td> <td>6 L/min</td> <td>8 L/min</td> </tr> <tr> <td><b>.993</b></td> <td><b>4.005</b></td> <td><b>6.011</b></td> <td><b>6.616</b></td> </tr> </table> <p>Baseline average (mV):</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1L</td> <td>1L</td> <td>1L</td> <td>1L</td> <td>1L</td> </tr> <tr> <td><b>18.23</b></td> <td><b>17.79</b></td> <td><b>18.37</b></td> <td><b>18.48</b></td> <td><b>18.53</b></td> </tr> <tr> <td>4L</td> <td>6L</td> <td>8L</td> <td>6L</td> <td>4L</td> </tr> <tr> <td><b>22.82</b></td> <td><b>26.03</b></td> <td><b>27.79</b></td> <td><b>26.42</b></td> <td><b>22.71</b></td> </tr> </table> <p>Calibration constant (kW/mV):</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td><b>15.2332</b></td> <td><b>14.1368</b></td> <td><b>13.8544</b></td> <td><b>14.6651</b></td> <td><b>16.7329</b></td> </tr> </table> <p><b>RESULTS</b></p> <p>Calibration constant average (kW/mV): <b>14.9245</b></p> <p>Standard deviation (%): <b>3.64</b></p>	1 L/min	4 L/min	6 L/min	8 L/min	<b>.993</b>	<b>4.005</b>	<b>6.011</b>	<b>6.616</b>	1L	1L	1L	1L	1L	<b>18.23</b>	<b>17.79</b>	<b>18.37</b>	<b>18.48</b>	<b>18.53</b>	4L	6L	8L	6L	4L	<b>22.82</b>	<b>26.03</b>	<b>27.79</b>	<b>26.42</b>	<b>22.71</b>	<b>15.2332</b>	<b>14.1368</b>	<b>13.8544</b>	<b>14.6651</b>	<b>16.7329</b>
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