## List of Figures

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fig. 1.1</td>
<td>Schematic diagram showing a prototype of ethanol tolerance mechanisms in <em>S. cerevisiae</em>.</td>
<td>5</td>
</tr>
<tr>
<td>Fig. 3.1</td>
<td>Schematic illustration of the apparatus</td>
<td>33</td>
</tr>
<tr>
<td>Fig. 3.2</td>
<td>Apparatus developed for magnetic field treatment for microorganism’s adaptive evaluation generation</td>
<td>35</td>
</tr>
<tr>
<td>Fig. 3.3</td>
<td>Apparatus developed for magnetic field treatment to ongoing fermentation</td>
<td>35</td>
</tr>
<tr>
<td>Fig. 3.4</td>
<td>Experimental design for fermentation under various conditions</td>
<td>36</td>
</tr>
<tr>
<td>Fig. 3.5</td>
<td>Apparatus developed for biogas generation. A Magnetic field facility digester and B control digester</td>
<td>38</td>
</tr>
<tr>
<td>Fig 4.6</td>
<td>The color transformation due to sugar content alteration</td>
<td>56</td>
</tr>
<tr>
<td>Fig 4.7</td>
<td>The color transformation due to sugar content alteration</td>
<td>57</td>
</tr>
<tr>
<td>Fig 4.8</td>
<td>Classification of the Ethanol-Tolerant Yeast Strains MTCC 36, 170 &amp; 177</td>
<td>60</td>
</tr>
<tr>
<td>Fig 4.9</td>
<td>Classification of the Ethanol-Tolerant Yeast Strains MTCC 36</td>
<td>61</td>
</tr>
<tr>
<td>Fig 4.10</td>
<td>Classification of the Ethanol-Tolerant Yeast Strains MTCC 36</td>
<td>61</td>
</tr>
<tr>
<td>Fig 4.11</td>
<td>Classification of the Ethanol-Tolerant Yeast Strains MTCC 170</td>
<td>62</td>
</tr>
<tr>
<td>Fig 4.12</td>
<td>Classification of the Ethanol-Tolerant Yeast Strains MTCC 170</td>
<td>62</td>
</tr>
<tr>
<td>Fig 4.13</td>
<td>Classification of the Ethanol-Tolerant Yeast Strains MTCC 177</td>
<td>63</td>
</tr>
<tr>
<td>Fig 4.14</td>
<td>Classification of the Ethanol-Tolerant Yeast Strains MTCC 177</td>
<td>63</td>
</tr>
<tr>
<td>Fig 4.33</td>
<td>Siderophore Production</td>
<td>100</td>
</tr>
</tbody>
</table>