1011a. THIOBACTER MJ MEDIUM

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>NaCl</td>
<td>3.00 g</td>
</tr>
<tr>
<td>K$_2$HPO$_4$</td>
<td>0.14 g</td>
</tr>
<tr>
<td>CaCl$_2$ x 2 H$_2$O</td>
<td>0.14 g</td>
</tr>
<tr>
<td>MgSO$_4$ x 7 H$_2$O</td>
<td>0.34 g</td>
</tr>
<tr>
<td>MgCl$_2$ x 6 H$_2$O</td>
<td>0.42 g</td>
</tr>
<tr>
<td>KCl</td>
<td>0.33 g</td>
</tr>
<tr>
<td>NH$_4$Cl</td>
<td>0.25 g</td>
</tr>
<tr>
<td>Fe(NH$_4$)$_2$(SO$_4$)$_2$ x 6 H$_2$O</td>
<td>0.01 g</td>
</tr>
<tr>
<td>Trace element solution (see medium 141)</td>
<td>10.00 ml</td>
</tr>
<tr>
<td>NaHCO$_3$</td>
<td>1.50 g</td>
</tr>
<tr>
<td>Na$_2$S$_2$O$_3$ x 5 H$_2$O</td>
<td>1.50 g</td>
</tr>
<tr>
<td>Vitamin solution (see medium 141)</td>
<td>10.00 ml</td>
</tr>
<tr>
<td>Distilled water</td>
<td>1000.00 ml</td>
</tr>
</tbody>
</table>

Dissolve ingredients (except bicarbonate, thiosulfate and vitamins), then sparge medium with 80% N$_2$ and 20% CO$_2$ gas mixture for 30 – 45 min to make it anoxic. Dispense medium under same gas atmosphere into anoxic Hungate-type tubes or serum vials up to a volume of 20% and autoclave. Add bicarbonate, thiosulfate and vitamins to the autoclaved medium from sterile anoxic stock solutions. Solutions of vitamins and thiosulfate are sterilized by filtration and stored under 100% N$_2$ gas, whereas the solution of bicarbonate is prepared under 80% N$_2$ and 20% CO$_2$ gas mixture and autoclaved. Adjust pH of the complete medium to 6.7. After inoculation add sterile air in an amount that is equivalent to a volume of 50% of the headspace.