

## 1721. MMJHS MEDIUM

NaNO <sub>3</sub>	1.00	g
NaHCO <sub>3</sub>	1.00	g
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> x 5 H <sub>2</sub> O	1.00	g
Sulfur, powdered	10.00	g
MJ synthetic seawater (see below)	1000.00	ml

### *Synthetic seawater:*

NaCl	25.00	g
K <sub>2</sub> HPO <sub>4</sub>	0.14	g
CaCl <sub>2</sub> x 2 H <sub>2</sub> O	0.70	g
NH <sub>4</sub> Cl	0.25	g
MgSO <sub>4</sub> x 7 H <sub>2</sub> O	3.40	g
MgCl <sub>2</sub> x 6 H <sub>2</sub> O	4.20	g
KCl	0.50	g
Trace mineral solution (see below)	10.00	ml
Distilled water	1000.00	ml

### *Trace mineral solution:*

Nitrilotriacetic acid	1.500	g
MgSO <sub>4</sub> x 7 H <sub>2</sub> O	3.000	g
MnSO <sub>4</sub> x X H <sub>2</sub> O	0.500	g
NaCl	1.000	g
FeSO <sub>4</sub> x 7 H <sub>2</sub> O	0.100	g
CoSO <sub>4</sub> x 7 H <sub>2</sub> O	0.180	g
CaCl <sub>2</sub> x 2 H <sub>2</sub> O	0.100	g
ZnSO <sub>4</sub> x 7 H <sub>2</sub> O	0.180	g
CuSO <sub>4</sub> x 5 H <sub>2</sub> O	0.010	g
AlK(SO <sub>4</sub> ) <sub>2</sub>	0.002	g
H <sub>3</sub> BO <sub>3</sub>	0.010	g
Na <sub>2</sub> MoO <sub>4</sub> x 2 H <sub>2</sub> O	0.010	g
Na <sub>2</sub> WO <sub>4</sub> x 2 H <sub>2</sub> O	0.100	g
NiCl <sub>2</sub> x 6 H <sub>2</sub> O	0.025	g
Na <sub>2</sub> SeO <sub>3</sub> x 5 H <sub>2</sub> O	0.050	g
Distilled water	1000.00	ml

First dissolve nitrilotriacetic acid and adjust pH to 6.5 with KOH, then add minerals.  
Final pH 7.0 (with KOH).

For **DSM113300** add 0,1% O<sub>2</sub>

Prepare the medium under an atmosphere of H<sub>2</sub>/CO<sub>2</sub> (80:20) without adding NaNO<sub>3</sub>, Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> × 5 H<sub>2</sub>O and NaHCO<sub>3</sub> in serum bottles and seal the serum tubes with butyl rubber stoppers. Steam medium for 3 hours on each of 3 successive days. To the sterile medium add, from filter sterilised stock solutions, NaNO<sub>3</sub>, Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> × 5 H<sub>2</sub>O and NaHCO<sub>3</sub>. Increase the 80% H<sub>2</sub> + 20% CO<sub>2</sub> gas phase pressure to 0.3 MPa. The final pH is 7.0.