

88: SULFOLOBUS MEDIUM

This recipe contains strain-specific modifications for *Metallosphaera sedula* DSM 5348 *

Final pH: 2.0

Final volume: 1010 ml

(NH ₄) ₂ SO ₄	1.30	g
KH ₂ PO ₄	0.28	g
MgSO ₄ x 7 H ₂ O	0.25	g
CaCl ₂ x 2 H ₂ O	0.07	g
FeCl ₃ x 6 H ₂ O	0.02	g
Allen's trace element solution	10.00	ml
Yeast extract (OXOID)	1.00	g
Sulfide ore	20.00	g
Sulfur powder	0.50	g
Distilled water	1000.00	ml

Dissolve ingredients (except yeast extract or other substrates), adjust pH of the salt solution at room temperature to 2.0 using 10 N H₂SO₄ and autoclave. Yeast extract and other organic substrates are sterilized separately by autoclaving of a 10% (w/v) stock solution at neutral pH.

* Omit yeast extract and supplement medium with 0.50 g/l powdered sulfur and 20.00 g/l sulfide ore (e.g., pyrite). Sterilize sulfur separately by steaming for 3 hours on each of 3 successive days (see medium 35) and ore by heating at 150°C overnight. Add sulfur and ore aseptically to the autoclaved medium.

Allen's trace element solution (from medium 88)

MnCl ₂ x 4 H ₂ O	180.00	mg
Na ₂ B ₄ O ₇ x 10 H ₂ O	450.00	mg
ZnSO ₄ x 7 H ₂ O	22.00	mg
CuCl ₂ x 2 H ₂ O	5.00	mg
Na ₂ MoO ₄ x 2 H ₂ O	3.00	mg
VOSO ₄ x 2 H ₂ O	3.00	mg
CoSO ₄ x 7 H ₂ O	1.00	mg
Distilled water	1000.00	ml

Adjust pH of final solution to 2 with 1 N HCl.