

Table S1. Medium preparation compositions

Solution	Compound	Unit	Amount
Cultivation medium			
A	K ₂ HPO ₄	g	5.16
	KH ₂ PO ₄	g	1.50
	NH ₄ Cl	g	0.30
	Yeast extract	g	0.30
	Distilled water	mL	690.00
B	MgSO ₄ ·7H ₂ O	g	0.10
	Distilled water	mL	50.00
C	Na ₂ S ₂ O ₃ ·5H ₂ O	g	5.00
	Distilled water	mL	50.00
	Na ₂ -EDTA	g/L	50.00
	ZnSO ₄ ·7H ₂ O	g/L	22.0
Trace metal	CaCl ₂	g/L	5.54
	MnCl ₂ ·4H ₂ O	g/L	5.06
	FeSO ₄ ·7H ₂ O	g/L	4.99
	(NH ₄) ₆ Mo ₇ O ₂₄ ·4H ₂ O	g/L	1.10
	CuSO ₄ ·5H ₂ O	g/L	1.57
	CoCl ₂ ·6H ₂ O	g/L	1.61
Fermentation Medium			
A	MgCl ₂ ·6H ₂ O	g	0.083
	NaHCO ₃	g	0.12
	NH ₄ Cl	g	0.30
	Yeast extract	g	0.30
	CaCl ₂ (for immobilized cell experiment)	g	2.22
	Distilled water	mL	200.00
B	K ₂ HPO ₄	g	1.36
	KH ₂ PO ₄	g	1.70
	Distilled water	mL	360.00
C	FeSO ₄ ·7H ₂ O	g	0.05
	Distilled water	mL	50.00
D	Na ₂ SO ₄	g	0.09
	Distilled water	mL	50.00
E	Na ₂ S·9H ₂ O	g	0.891
	Distilled water	mL	130.00
Trace metal	Cultivation medium trace metal	mg/L	5.00

Table S2. Solution C composition for acclimatization medium.

Source of S	Units	Acclimatization Level			
		I	II	III	IV
Na ₂ S ₂ O ₃ .5H ₂ O	g	3.75	2.5	1.25	0
Na ₂ S.9H ₂ O	g	0.18	0.35	0.52	0.7
Working Volume	mL	200	200	200	1000