

Materials List for:

Synthesizing Sodium Tungstate and Sodium Molybdate Microcapsules Via Bacterial Mineral Excretion

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URL: <https://www.jove.com/video/57022>

DOI: [doi:10.3791/57022](https://doi.org/10.3791/57022)

Materials

Name	Company	Catalog Number	Comments
LB(Lennox)broth with agar tablets	Sigma-Aldrich	L7075	1 tablet for 50 mL broth with agar
LB (Lennox) broth	Sigma-Aldrich	L3022-1KG	LB (Lennox) powder 1 kg
Dextrose anhydrous	Nihon Shiyaku Reagent	PL 78695	glucose
Sodium Tungstate	Nihon Shiyaku Reagent	PL 76050	Na ₂ WO ₄ · 2H ₂ O
Sodium Molybdate	Nihon Shiyaku Reagent	PL103564	Na ₂ MoO ₄ · 2H ₂ O
Sodium Chloride	Nihon Shiyaku Reagent	PL 68131	NaCl
Ethanol 99.5%	Acros organics	AC615090040	CH ₃ CH ₂ OH
Water	Made in our university		de-ionized water
Autoclave	Tomin Medical Equipmenco, Ltd., Taipei City, Taiwan, ROC	TM-329	heat to 120 °C for 10 min
Centrifuge	Digit System Laboratory System, New Taipei City, Taiwan, ROC	DSC302SD	centrifuge at 2025 x g
-80 °C Refrigerator	Panasonic	MDF-U3386S	Use to deep-freeze cryopreserve strain
Ultrasonic Homogenizer Sonicator Processor Cell Disruptor	Lenox	UPS-150	frequency 20 KHz power 150 W
Incubator	Customer made	custom made	heat to 40 °C or cool to 18 °C with time control
Reciprocal shaking baths	Kingtech Scientific Co., Ltd	WBS-L	
Digital Stirring Hot Plate	Corning	#6797-620D	use with PTFE magnetic stirring bar
Biosafety cabinet	Zong Yen co., LTD	ZYBH-420	All bacteria related process are done here
Scanning electron microscope	JEOL	JSM-6500F	SEM Images
50 mL centrifuge tube	Falcon	14-432-22	
15 mL centrifuge tube	Falcon	14-959-53A	
Laboratory bottle 100 mL	Duran	21 801 24 5	
Laboratory bottle 500 mL	Duran	21 801 44 5	
Stainless steel spatula	Chemglass	CG-1981-10	
PTFE Disposable Stir Bars	Fisher	S68066	
Plastic Petri Dishes	Fisher	S33580A	
Shewanella algae	Courtesy of author #3	Courtesy of author #3	
Pandoraea sp.	Courtesy of author #3	Courtesy of author #3	