

Materials List for:

Facile Synthesis of Worm-like Micelles by Visible Light Mediated Dispersion Polymerization Using Photoredox Catalyst

Jonathan Yeow^{1,2,3}, Jiangtao Xu^{1,2,3}, Cyrille Boyer^{1,2,3}

¹Centre for Advanced Macromolecular Design (CAMD), The University of New South Wales

²Australian Centre for NanoMedicine (ACN), The University of New South Wales

³School of Chemical Engineering, The University of New South Wales

Correspondence to: Cyrille Boyer at cboyer@unsw.edu.au

URL: <https://www.jove.com/video/54269>

DOI: [doi:10.3791/54269](https://doi.org/10.3791/54269)

Materials

Name	Company	Catalog Number	Comments
4-Cyano-4-(phenylcarbonothioylthio)pentanoic acid (CPADB)	Sigma-Aldrich	722995-5G	
Oligo(ethylene glycol) methyl ether methacrylate (OEGMA)	Sigma-Aldrich	447935-500ML	Average M _n 300, contains 100 ppm MEHQ as inhibitor, 300 ppm BHT as inhibitor
2,2'-Azobis(2-methylpropanitrile) (AIBN)	Sigma-Aldrich		
Ru(bpy) ₃ Cl ₂ ·6H ₂ O	Sigma-Aldrich	544981-1G	
Benzyl methacrylate (BzMA)	Sigma-Aldrich	409448-1L	Contains monomethyl ether hydroquinone as inhibitor
Aluminium oxide (basic)	Chem-Supply Pty Ltd Australia	AL08371000	
95% Ethanol (EtOH)	Sucrogen Bio Ethanol	80889	
Acetonitrile (MeCN)	Chem-Supply Pty Ltd Australia	RP1005-G2.5L	
Tetrahydrofuran (THF)	Chem-Supply Pty Ltd Australia	TA011-2.5L	
Petroleum Spirits (40-60 °C)	Chem-Supply Pty Ltd Australia	PA044-2.5L	
Diethyl Ether	Chem-Supply Pty Ltd Australia	EA0362.5L	
Dimethylacetamide (DMAc)	VWR International Australia	ALFA22916.M1	For GPC analysis
Pasteur pipettes (230 mm)	Labtek	355.050.503	
Glass beakers	Labtek	025.01.902 (2L)/ 2110654 (1L)	2 L beaker is for attaching LED strips to form the circular reactor
Commercial LED strip	EcoLab	n/a	λ = 460 nm, 4.8 W/m
4 ml Glass Vials	Labtek	APC502214B	
0.9 ml Quartz Cuvette	Starna Scientific Ltd	21/Q/2	
Needle (0.8 mm x 38 mm)	Beckton Dickson	302017	For deoxygenating reactions
Needle (0.8 mm x 120 mm)	B Braun Australia	4665643	For deoxygenating reactions
Sleeve stopper septa (rubber septum)	Sigma-Aldrich	z564680/z564702	
Stirring hotplates	VWR International Australia/In Vitro Technologies	97018-488/RADRR91200	
Vortex mixer	VWR International Australia	412-0098	
Vacuum oven	In Vitro Technologies	MEMVO200	