

Materials List for:

Fabrication Procedures and Birefringence Measurements for Designing Magnetically Responsive Lanthanide Ion Chelating Phospholipid Assemblies

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URL: <https://www.jove.com/video/56812>

DOI: [doi:10.3791/56812](https://doi.org/10.3791/56812)

Materials

Name	Company	Catalog Number	Comments
1,2-dimyristoyl- <i>sn</i> -glycero-3-phosphocholine (DMPC)	Avanti Polar Lipids	850345P	>99%
1,2-dimyristoyl- <i>sn</i> -glycero-3-phospho-ethanolamine-diethylene triaminepentaacetate acid hexammonium salt (DMPE-DTPA)	Avanti Polar Lipids	790535P	>99%
Thulium(III) chloride	Sigma-Aldrich	439649	anhydrous, powder, 99.9% trace metals basis
Dysprosium(III) chloride	Sigma-Aldrich	325546	anhydrous, powder, 99.9% trace metals basis
Ytterbium(III) chloride	Sigma-Aldrich	439614	anhydrous, powder, 99.9% trace metals basis
Chloroform	Sigma-Aldrich	319988	contains ethanol as stabilizer, ACS reagent, ≥99.8%
Methanol	Sigma-Aldrich	34860	≥99.9%
Cholesterol	Amresco	433	Ultra pure grade
D2O	ARMAR chemicals	1410	99.8 atom % D
Ultrapure water	Millipore		Synergy pak2 (SYPK0SIX2), Millipack GP (MPGP02001)
electronic pH meter	Metrohm	17440010	
Whatmann Nuclepore 25 mm 100nm membrane filter	VWR	515-2028	
Whatmann Nuclepore 25 mm 200nm membrane filter	VWR	515-2029	
Whatmann Nuclepore 25 mm 400nm membrane filter	VWR	515-2030	
Whatmann Nuclepore 25 mm 800nm membrane filter	VWR	515-2032	
Whatmann Filter paper	VWR	230600	
25 ml round bottom flask	VWR	201-1352	14/23 NS
3 ml glass snap-cup	VWR	548-0554	ND18, 18x30mm
2.5 ml glass syringe	Hamilton		
Sodium dihydrogen phosphate dihydrate	Merk	1.06342	Salt used to make phosphate buffer
di-Sodium hydrogen phosphate	Merk	1.06586	Salt used to make phosphate buffer
Liquid Nitrogen	Carbagas	-	
Pressurized Nitrogen gas	Carbagas	-	200 bar bottle

Lipid Extruder 10 ml	Lipex	-	Fully equipped with thermobarrel
High-pressure PVC tube	GR NETUM	-	must resist more than 4 MPa
Serto adaptors	Sertot	-	
Nitrile gloves	VWR	-	
2 ml glass pipettes	VWR	612-1702	230 mm long
Diode Laser	Newport	LPM635-25C	
DSP Dual Phase Lock-in Amplifier	SRS	SR830	
Photodiode Detector	Silonex Inc.	SLSD-71N5	5mm ² , Silicon, photo-conductive
5.5 T Cryogenic Magnetic	Cryogenic/Oerlikon AG	-	12 bar He-cooled. RW4000/6000 compressor, RGD 5/100 TA cryo-head
Second order low pass filter	home-built	-	Linear power supply 24V DC, second order, Sallen Key, cut-off frequency 360 Hz, +/- 12V, max 10 mA
Photoelastic modulator	Hinds instruments	PEM-90	
Glan-Thompson Calcite Polarizer	Newport	10GT04	25.4mm diameter
Quartz sample cuvette	Hellma	165-10-40	temperature controlled cell, 0.8 ml, 10mm path length
Temperature probe	Thermocontrol	-	Type K, 0.5mm diameter, Thermocoax
Non-polarizing mirrors	Newport	50326-1002	25.4mm
RS 232 cables	National Instruments	189284-02	For Connecting to the RS-232 Port on the front of Compact FieldPoint Controllers
BNC 50 Ω cable and connectors	National Instruments	763389-01	
cFP-AI-110	National Instruments	777318-110	8-Channel Analog Voltage and Current Input Module for Compact FieldPoint
cFP-CB-1	National Instruments	778618-01	Integrated Connector Block for Wiring to Compact FieldPoint I/O
cFP-CB-3	National Instruments	778618-03	Integrated Isothermal Connector Block for Wiring Thermocouples to the cFP-TC-120 Module
cFP-TC-120	National Instruments	777318-120	8-Channel Thermocouple Input Module for Compact FieldPoint
cFP-1804	National Instruments	779490-01	Ethernet/Serial Interface for NI Compact FieldPoint
LabView 2010	National Instruments	-	
Industrial power supply	Traco Power	TCL 060-124	100-240V AC
Waterbath	Julabo	FP40-HE	refrigerated/Heating Circulator