

Materials List for:

# Microwave-assisted Intramolecular Dehydrogenative Diels-Alder Reactions for the Synthesis of Functionalized Naphthalenes/Solvatochromic Dyes

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## Materials

Name	Company	Catalog Number	Comments
<b>Reagent/Material</b>			
1,2-Dichloroethane, ACS reagent ≥99.0%	Sigma-Aldrich	319929	
SiliaPlate G TLC - glass-backed, 250 μm	Silicycle	TLG-R10011B-323	
Ethyl acetate, certified ACS ≥99.5%	Fisher Scientific	E14520	
Hexanes, certified ACS ≥98.5%	Fisher Scientific	H29220	
Silica gel, standard grade	Sorbent Technologies	30930M	60 A, 40-63 μm (230 x 400 mesh)
RuPhos palladacycle	Strem	46-0266	
Nitrogen gas	Matheson TRIGAS	NI304	Nitrogen 304cf, industrial
Lithium bis(trimethylsilyl) amide solution	Sigma-Aldrich	225770	1.0 M solution in THF
Tetrahydrofuran anhydrous ≥99.9%	Sigma-Aldrich	401757	Inhibitor-free
Dimethylamine solution	Sigma-Aldrich	391956	2.0 M solution in THF
Ammonium chloride	Fisher Scientific	A661-500	
Sodium sulfate, anhydrous (granular)	Fisher Scientific	S421-500	
Chromatography column	Chemglass	CG-1188-04	½ in ID x 18in E.L.
Cyclohexane, ≥99.0%	Fisher Scientific	C556-1	
Toluene anhydrous, 99.8%	Sigma-Aldrich	24451	
1,4-Dioxane anhydrous, 99.8%	Sigma-Aldrich	296309	
Tetrahydrofuran anhydrous, ≥99.9%	Sigma-Aldrich	186562	250 ppm BHT as inhibitor
Dichloromethane	Sigma-Aldrich	650463	Chromasolv Plus
Chloroform, ≥99.8%	Fisher Scientific	C298-1	
Acetonitrile anhydrous, 99.8%	Sigma-Aldrich	271004	
Dimethyl sulfoxide, ≥99.9%	Fisher Scientific	D128	
Ethyl alcohol	Pharmco-AAPER	11ACS200	Absolute
<b>Equipment</b>			
Microwave Synthesizer	Biotage	Biotage Initiator Exp	
Microwave Vial	Biotage	352016	0.5 – 2 ml
Microwave Vial	Biotage	351521	2 – 5 ml
Microwave Vial Cap	Biotage	352298	
Microwave Synthesizer	Anton Paar	Monowave 300	
Microwave Vial G4	Anton Paar	99135	

Microwave Vial Cap	Anton Paar	88882	
NMR Spectrometer	Bruker	Avance	300 or 400 MHz
UV-Visible Spectrometer	PerkinElmer	Lamda 9	
Spectrophotometer cell	Starna Cells	29B-Q-10	Spectrosil quartz, path length 10 mm, semi-micro, black wall
Spectrofluorometer	HORIBA Jobin Yvon	FluoroMax-3 S4	
Fluorometer cell	Starna Cells	29F-Q-10	Spectrosil quartz, path length 10 mm, semi-micro