

Materials List for:

Accessing Valuable Ligand Supports for Transition Metals: A Modified, Intermediate Scale Preparation of 1,2,3,4,5-Pentamethylcyclopentadiene

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Materials

Name	Company	Catalog Number	Comments
Materials			
Lithium wire (in mineral oil)	Aldrich	278327-100G	>98%
2-bromo-2-butene (mixture of cis/trans isomers)	Acros	200016-364	98%, dried over molecular sieves from an oven overnight before use
Hexanes	Millipore	HX0299-3	GR ACS, used as received
Ethyl acetate	Millipore	EX0240-3	GR ACS, dried over molecular sieves from an oven overnight before use
Ammonium chloride	Aldrich	213330-2.5kg	ACS Reagent
Diethyl ether	Millipore	EX0190-5	GR ACS, collected from a solvent purification system before use
Magnesium sulfate	Aldrich	793612-500g	Anhydrous, reagent grade
<i>p</i> -toluene sulfonic acid monohydrate	Fisher	A320-500	ACS Certified
Sodium bicarbonate	Fisher	5233-500	ACS Certified
Sodium carbonate	Amresco	0585-500g	
Ruthenium(III) chloride trihydrate	Pressure Chemical	4750	40% Metal
Iridium(III) chloride hydrate	Pressure Chemical	5730	53% Metal
Methanol	Avantor	3016-22	AR ACS, distilled from Mg before use
Pentane	J. T. Baker	T007-09	>98%, dried with a solvent purification system before use
Chloroform- <i>d</i>	Aldrich	151823-150G	99.8 atom % D
Molecular sieves 4 Å	Aldrich	208590-1KG	dried in an oven at 140 °C before use
Celite 545	Acros	AC34967-0025	dried in an oven at 140 °C before use
Name			
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Equipment			
Schlenk line, with vacuum and inert gas manifolds	Custom	NA	Used in Preps 1-4
Solvent transfer manifold	Chemglass	AF-0558-01	Used in 2.2
Airfree filter funnel	Chemglass	AF-0542-22	Used in 3.1.3
Glovebox	Vacuum Atmospheres	OMNI	Used in 3.2.2