

Materials List for:

Extraction of Lignin with High β -O-4 Content by Mild Ethanol Extraction and Its Effect on the Depolymerization Yield

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Materials

Name	Company	Catalog Number	Comments
Materials			
Iron (III) triflate	Sigma Aldrich	708801-1G	purity: 90%
Octadecane	Sigma Aldrich	0652-100G	purity: 99%
Celite	Alfa Aesar	H33152.0B	
Silica Gel	SiliCycle	R12030B-1KG	P60 40-63 μ m
Dichloromethane	Macron Fine Chemicals	6779-25	
Walnut shells			
Pine wood			
Cedar wood			
Beech wood			
Ethanol	JT Baker Chemicals	00832000001	Ethanol absolute
Isopropanol	Acros Organics	149320025	99.5+% extra pure
Acetone	Macron Fine Chemicals	2440-06	
Tetrahydrofuran	Boom B.V.	164240025	stabilized with BHT
Toluene	Macron Fine Chemicals	8608-02	
Water			Demi water from the internal supply
1,4-Dioxane	Acros Organics	408820010	99+% extra pure
Hydrochloric acid	Acros Organics	124620026	37% solution in water
Sulfuric acid	Boom B.V.	760519081000	95-97%
Acetone-d6	Acros Organics	325320500	99.8 atom% D
Deuterium oxide	Sigma Aldrich	151882-100G	99.9 atom% D
Filters	Munktell	400303185	185 mm diameter, 10 μ m pore size
Magnetic stirring bars	VWR	442-4525	
Syringe filter	Sartorius	17559-Q	0.45 μ m filter
Autosampler vial (2 mL)	Brown	151123	
Reduced volume inlet (0.3 mL)	Brown	150820	
Autosampler caps (11 mm)	Brown	151216	
Autosampler vial crimper			
Oil bath			
Syringes (1 mL)	Henke Sass Wolf	4010-200V0	
Heating block-4 positions	IKA		
Micro tubes 2 ml	Sarstedt	72691	

Crimp seals-20 mm	Brown Chromatography Supplies	151287	with Silicone/PTFE septa
Equipment			
Rotary Ball Mill	Fritsch	06.2000.00	Laboratory Planetary Mono Mill PULVERISETTE 6
Hammer mill	Brabender		
Micro Hammer mill	Brabender		
Vacuum oven	Heraeus		Heraeus Vacutherm
Reflux setup and other glassware	CBN Suppliers B.V.		Reflux condensor, Roundbottom flask, Beaker glass and funnels
Rotary evaporator	IKA		
250 mL high pressure autoclave	Berghof		
1 L high pressure autoclave	Medimex		
Ultrasonic bath	Emerson		type Branson 3210
NMR instrument	Bruker		Ascend 600
THF-GPC	Hewlett Packard		1100 series
Magnetic stirring plate	SalmenKipp	SK861492220263	type x-1250
Coffee grinder	Profi Cook	PC-KSW1021	
Drilling machine	Solid		type TB 13 S
GC-FID	Shimadzu		
BUCHI Reveleris PREP purification system	Buchi		
BUCHI C18 column	Buchi		150 mm × 21.2 mm × 10 µm
20 ml microwave vials	???		
Univapo 150 ECH rotational vacuum concentrator	UniEquip		
Eppendorf minispin tabletop centrifuge	Eppendorf		
SB2 rotator	Stuart		
Vortex	Wilten		
Processing Software			
WinGPC Unichrom			
MestReNova			