

Materials List for:

Deposition of Porous Sorbents on Fabric Supports

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Materials

Name	Company	Catalog Number	Comments
unbleached 100% cotton fabric	JOANN Stores	N/A	Protocol is suitable for use on a variety of fabrics
ammonium hydroxide	Aldrich	32,014-5	
tetraethyl orthosilicate	Aldrich	13,190-3	
Pluronic P123	Aldrich	435465	
mesitylene	Sigma-Aldrich	M7200	
1,2-bis(trimethoxysilyl)ethane	Aldrich	447242	
methanol	Fisher Chemical	A454SK-4	
nitric acid	Sigma-Aldrich	438073	Prepare 0.1 M aqueous solution
3-aminopropyltriethoxysilane	Gelest	SIA0603.4	
toluene	Sigma-Aldrich	650579	
Deuteroporphyrin IX bis ethylene glycol	Frontier Scientific	D630-9	
dimethyl sulfoxide	Sigma-Aldrich	276855	
copper chloride	Sigma-Aldrich	256528	
2-(N-morpholino)ethansulfonic acid	Sigma-Aldrich	M3671	Prepare 0.1M buffer at pH 5.5
1-ethyl-3-(3-dimethylaminopropyl)carbodiimide	Sigma-Aldrich	E6383	
ethyl alcohol	Warner-Graham	64-17-5	
Drierite	Sigma-Aldrich	737828	
Microwave	Daewoo	KOR-630A	
Nitrogen adsorption instrument	Micromeritics	TriStar II Plus	
Environmental chamber	custom part	N/A	Here, a modified Thermolyne incubator, Compact Series 5000 was used
Flame ionization detector (FID)	SRI Instruments	8690-0010	Model 110
Humidity probe	Vaisala	HMT3303E0A193BCAC100A0CCABEA1	
AVLAG Cell	custom part	N/A	AERO-Space Tooling and Machining, P/N RS0010 Permeation cell
Computer controlled heater	World Precision Instruments	AIRTHERMY-ATX	
Mass flow controller	MKS Instruments	1179A01312CS	
Dipper mechanism Type D1L	NIMA Technology Ltd	D1L	
Gravity oven	Fisher Scientific	15-103-0520	
Stirring hotplate	Fisherbrand	S28482	
Octagon spinbar, magnetic stirring bar	Fisherbrand	14-513-82	

PSI-Plot version 9.5	Poly Software International, Inc	N/A	
Microsoft Office Professional Plus - Excel 2013 32-bit	Microsoft	N/A	
MicroActive TriStar II Plus Software	Micromeritics	packaged with the TriStar II nitrogen adsorption instrument	