

Materials List for:

Microfluidic Fabrication of Polymeric and Biohybrid Fibers with Predesigned Size and Shape

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Materials

Name	Company	Catalog Number	Comments
Pentaerythritol tetrakis 3-mercaptopropionate	Sigma-Aldrich	381462	See references
1,7-Octadiyne	Sigma-Aldrich	161292	See references
2,2-Dimethoxy-2-phenylacetophenone	Sigma-Aldrich	196118	See references
Polyethylene glycol 400	Sigma-Aldrich	202398	Polyethylene glycol 200 or 600, dextrose, or glycerol may be substituted
Sylgard 184	Sigma-Aldrich	761036	QSIL 216, OptiTec 7020, or GS RTV 615 may be substituted
Table of Specific Equipment			
MiniMill	Haas	MINIMILL	Any NC code interpreting 2.5 axis (or higher) mill may be substituted
Syringe pumps (3)	Harvard Apparatus	702212	Syringe pumps that can be programmed to deliver the desired volume flow rates may be substituted
Tygon tubing (3 m)	Fisher Scientific	14-169-13A	NA
PEEK tubing	Upchurch Scientific	1435	NA
HPLC fittings	Upchurch Scientific	1457	NA
BlueWave 200 UV lamp with stand and light guides	Dymax	38905; 38477; 39700	Any guided UV source that delivers 300-450 nm, >200 mW/cm ² may be substituted
500 ml beaker	Fisher Scientific	FB-100-600	Any vessel of approximately the same size and shape may be substituted
Ring stand	Fisher Scientific	S47807	Any ring stand capable of mounting a clamped sheath flow apparatus above the level of the syringe pumps may be substituted
Ring stand clamp holder (2)	Fisher Scientific	S02625	Any ring stand clamp holder capable of holding the clamps may be substituted
Ring stand clamps (2)	Fisher Scientific	02-216-352	Any ring stand clamp capable of holding the clamped sheath flow apparatus and light guides may be substituted
1, 5, and 60 ml Syringes	Fisher Scientific	14-823-16H; 14-823-16D; 14-820-11	Any syringe with known inner diameter and sufficient volume may be substituted

Poly(methylmethacrylate) (3.2 mm)	McMaster-Carr	8560K239	Polycarbonate and cyclic olefin copolymer may be substituted
Polyether ether ketone (3.2 mm)	McMaster-Carr	8504K25	Solvent resistant machinable materials may be substituted
Aluminum (3.2, 9.5 mm)	McMaster-Carr	1651T41; 9246K23	Substitute other materials as needed