

Materials List for:

Writing Bragg Gratings in Multicore Fibers

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Materials

Name	Company	Catalog Number	Comments
Multicore fiber	Fujikura Ltd.		7 cores with diameter 5.5 μm, core separation 35 μm, hexagonally arranged within 125 μm cladding, NA = 0.177
Glass tapering machine	Vytran	GPX-3000	
UV laser	Coherent	300 FreD Innova	Frequency doubled 244 nm, at least 150 mW output. CAUTION: eye damage; wear appropriate goggles
Phase mask	Lasiris	PM-244-1069.50-50.8	Custom component, 1069.50 nm grating period, 5.08 mm thickness
Capillary tubes	Polymicro	TSP200794	Inner diameter 200 μm, outer diameter 794 μm
Lapping machine	Logitech	PM5	Combination grinder/polisher
UV-curable glue	Norland	NOA-61	Cures rapidly, removable with acetone
Microgrit	Eminess		Al ₂ O ₃ : 25 μm and 5 μm particle size
Polishing fluid	Eminess	ULTRA-SOL 500S	SF-500S-5, ULTRA-SOL 500S N/D, 5 GAL
Sodium hydroxide			0.004 M
Fiber cleaver	Vytran	LDC-400	
Tunable laser	JDS Uniphase	SWS15101	
IR Camera	Xenics	XEVA-1429	320x256 pixel, 16 bit resolution
Oven	Thermoline Scientific	LDO-030N	For annealing at T = 110 °C
Hydrogen gas	BOC		For hydrogenating fiber. CAUTION: flammable, pressurised gas
Nitrogen gas	BOC		Booster for hydrogenation. CAUTION: pressurised gas
Acetone			
Razor blades			