

Materials List for:

Fabricating Metamaterials Using the Fiber Drawing Method

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Materials

Name	Company	Catalog Number	Comments
Indium 99.99% Wire, 1 mm diameter	AIM Specialty	Available on request	www.aimspecialty.com http://www.aimspecialty.com/Portals/0/Files/Indium.pdf
2-Propanol(Isopropanol)	Sigma-Aldrich	Product Number 190764	http://www.sigmaaldrich.com/chemistry/solvents/products.html?TablePage=17292086
Adhesive tape	Staples		
One Wrap PTFE Tape, 5 ml x 12 mmW x 0.2 mmT	RS Components	RS Stock Number 231-964	http://uk.rs-online.com/web/p/ptfe-tapes/0231964/
50 Micron Aluminium Foil Tape	Advance Adhesive Tapes	AT506	http://www.advancetapes.com/Products/types/9/page1/81
Blu-tak	Bostik		http://www.blutack.com/index.html
Araldite Quick Set	Selleys		http://selleys.com.au/adhesives/household-adhesive/araldite/quick-set
PMMA tubes: - ID 6 mm, OD 12 mm - ID 9 mm, OD 12 mm	B M Plastics: Plastic Fabrication	Available on request	http://www.bmplastics.com.au/about-us.htm

Equipment Requirements

- Fibre draw tower with furnaces of maximum temperatures of at least 200 °C (Heathway Polymer Draw Tower with Preform and Fibre draw facilities). A photograph of the draw tower is shown in **Figure 5**.
- Annealing oven of maximum temperatures of at least 90 °C.
- Optical microscope.
- Hot air gun.
- Vacuum pump.
- Top preform extender (metal tube of 30 cm length and 12 mm diameter).
- Primary draw bottom extender (metal tube of 100 cm length and 12 mm diameter).
- Secondary draw bottom extender (PMMA tube of 20 cm length and 12 mm diameter).