

Materials List for:

The Generation of Higher-order Laguerre-Gauss Optical Beams for High-precision Interferometry

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Materials

Name	Company	Catalog Number	Comments
<i>The experimental apparatus discussed in this paper requires the following types of instruments:</i>			
Instrument			
Solid state Laser source, Nd:YAG 1064 nm CW laser			Quantity: 1
Faraday Isolator			Quantity: 1
Electro-Optic Modulator (EOM)			Quantity: 1
CCDcamera beam profiler			Quantity: 1
Lenses			Quantity: depending on apparatus design
Steering Mirrors			Quantity: depending on apparatus design
Aperture			Quantity: 1
High reflectivity mirrors (for normal incidence)			Quantity: 2
Piezoelectric ring			Quantity: 1
Cavity spacer			Quantity: 1
Photodiodes and related control electronics			Quantity: 1 or more, depending on apparatus design
Spatial light modulator			Quantity: 1 Holoeye LCR-2500
<i>All the above instruments are commercially available and no particular specification is required. We leave the choice of the most suitable instruments to the experimenter's discretion.</i>			
<i>For the interest of the experimenter interested in reproducing the protocol, we recommend the following tools used in our experiment:</i>			
Tools			
Innolight OEM 300NE, 1064 nm, 300 mW			Laser Source:
SIMTOOLS			Software for data analysis, available at www.gwoptics.org/simtools/
FINESSE			Software for optical simulations, www.gwoptics.org/finesse/
Finally, the phase plate employed in the present experiment was manufactured by Jenoptik GmbH, based on a custom design provided by the Authors.			