

Materials List for:

Controllable Nucleation of Cavitation from Plasmonic Gold Nanoparticles for Enhancing High Intensity Focused Ultrasound Applications

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Materials

Name	Company	Catalog Number	Comments
Single Element HIFU transducer	Sonic Concepts	H-102	
55dB Power Amplifier	E&I	A300	
Function Generator	Keysight Technologies	33250A	
Differential Membrane Hydrophone	Precision Acoustics Ltd		
TTL Pulse Generator	Quantum Composers	9524	
Nd:YAG Pulse Laser	Continuum	Surelite I-10	
OPO Plus	Continuum	Surelite	
Fibre Bundle	Thorlabs Inc	BF20LSMA01	
Energy Sensor	Thorlabs Inc	ES145C	
Nanorods	Nanopartz	A12-40-850	
Broadband detector	Sonic Concepts	Y-102	
5 MHz high pass filter	Allen Avionics		
40dB preamplifier	Spectrum GmbH	SPA.1411	
14-bit data acquisition card	Spectrum GmbH	M4i.4420x8	
Deionised Filtered Water	MilliQ		
Acrylamide/Bis-acrylamide solution	Sigma Aldrich	A9927	
1 mol/L TRIS Buffer	Sigma Aldrich	T2694	
Ammonium Persulfate	Sigma Aldrich	A3678	
Bovine serum albumin	Sigma Aldrich	A7906	
TEMED	Sigma Aldrich	T9281	
3D printer	CEL-UK	Robox	
3-axis positioning system	Zolix		
Digital Microscope	Dino-lite	AM4113TL	
Water Tank	Muji	Acrylic Tank	
Optical Components	Thorlabs Inc	Various	
Optomechanical Components	Thorlabs Inc	Various	
BNC Cables	RS		
Desktop PC	Custom Made		
Hotplate Stirrer	Fisher		
SBench6	Spectrum GmbH		Measurement software