

Materials List for:

Intra-cardiac Side-Firing Light Catheter for Monitoring Cellular Metabolism using Transmural Absorbance Spectroscopy of Perfused Mammalian Hearts

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Materials

Name	Company	Catalog Number	Comments
BIOPAC data acquisition system	BIOPAC	MP150	Analog to digital conversion
BIOPAC general purpose transducer amplifiers	BIOPAC	DA100C	Pressure monitoring
BIOPAC System skin temperature amplifier	BIOPAC	SKT100B	temperature monitoring
Compact Universal 1- and 2-Channel LED Controllers	Mightex	SLC-MA02-U	External light source power supply
Disposable pressure sensors	BIOPAC	RX104A	Pressure monitoring
Dual Syringe, Infusion Pump	KdScientific	KDS 200 / 200P LEGACY SYRINGE PUMP	drug injection
Flow-through probes	Transonic	4PXN	perusate flow monitoring
Glass Syringe	FORTUNA Optima	30 CC	Air tight fluid injection
High power fiber-coupled LED white light source	Mightex	Type-A FCS-0000	External light source
Perfused heart system	Radnoti	120101BEZ	This system was heavily modified to provide adequate flow (see manuscript)
Phase fluorimeter	Ocean Optics	NeoFox-GT	oxygen concentration
Pickup fiber optic	Thor labs	BF20HSMA01	Fiber for collecting transmitted light (pick up fiber)
PowerLab unit	AD Instruments	PowerLab 8/35	Analog to digital conversion
Pressure transducers	BIOPAC	TSD104A	pressure monitoring
Programming environment	LABVIEW	N/A	Software for driving spectrometer, digitizing data and analysis. Code available on request
Rapid scanning spectrophotometer	Ocean Optics	QE65PRO	Rapid scanning spectrometer for spectral analysis
Side firing fiber optic	Polymicro Technologies Molex, LLC 18019 North 25th Av, Phoenix AZ 85023-1200	JTFLH200230500/1.5M	side firing fiber optic 200 microns core
Sodium cyanide	Sigma-Aldrich	380970	Metabolic inhibitor
Temperature probe	BIOPAC	TSD102A	temperature monitoring
Tubing flow modules	Transonic	TS410	perusate flow monitoring