

Materials List for:

A Rapid Laser Probing Method Facilitates the Non-invasive and Contact-free Determination of Leaf Thermal Properties

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Materials

Name	Company	Catalog Number	Comments
1" tube	Thorlabs	SM1L10E	Tube for fiber holder
Agarose	Sigma Aldrich	A0701	Agarose
Bi-Convex lense f=25.4	Thorlabs	LB1761	Lense
Digital Handheld Optical Power and Energy Meter Console	Thorlabs	PM100D	Console for thermal surface absorber sensor
Digital Phosphor Oscilloscope	Tektronix	DPO7104	Oscilloscope
DMR light microscope	Leica	n.a.	Light microscope
Falcon 50 mL Conical Centrifuge Tubes	Fisher Scientific	14-432-2	Pycnometer
Ferty 2 Mega	Kammlott	5.220072	Fertilizer
Fiber holder	Thorlabs		Fiber holder
Forma -86 °C ULT freezer	ThermoFisher	88400	Freezer
Greenhouse	n.a.	n.a.	For plant cultivation
Grodan Rockwool Cubes 10 x 10 cm	Grodan	102446	Rockwool block
Infrared Detector Optris CT	Optris	OPTCTL15	Infrared detector
Infrared Detector Software Compact Connect	Optris	n.a.	Control software for infrared detector
Lambda 1050 UV/Vis spectrophotometer	PerkinElmer	L1050	UV/VIS Spectrophotometer
Laser 400 µm, 1,550 nm Conduction Cooled Single Bar Fiber Coupled Module	DILAS	M1F-SS2.1	Laser
Laser cover	Amtron	LM200	Laser Cover
Laser Driver	Amtron	CS 408	Laser Driver
Osram cool white 36 W	Osram	4930440	Light source
Photodiode sensor	Thorlabs	PDA20H-EC	Power sensor for transmission measurements
Precision weight Ohaus Analytical Plus	Ohaus	80251552	Precision weight
Sample frame	Fraunhofer ILT	n.a.	Fixation of the leaf sample
Software Pyro Control	Amtron	n.a.	Laser Power Control Software
Stainless-steel-holder	n.a.	n.a.	Holder for measurement set-up
Teflon plates 2 cm	Fraunhofer ILT	n.a.	Teflon attenuation
Thermal surface absorber Power sensor	Thorlabs	S314C	Sensor for laser power measurements

Vibratome	Leica	1491200S001	Vibratome
Zoc/Pro 6.51	EmTec Innovative Software	n.a.	Laser Control Software