

Materials List for:

Carrier Lifetime Measurements in Semiconductors through the Microwave Photoconductivity Decay Method

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URL: <https://www.jove.com/video/59007>

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Materials

Name	Company	Catalog Number	Comments
n-type 4H-SiC epilayer	Ascatron AB http://ascatron.com/		Sample
266 nm pulsed laser	CryLaS GmbH http://www.crylas.de/	FQSS 266-50	Excitation light source
Photodiode	THORLABS https://www.thorlabs.com/index.cfm	DET10A/M	Trigger signal detection
Schottky barrier diode	ASI http://www.advancedsemiconductor.com/	1N23WE	Reflected microwave detection
Gun diode	Microsemi https://www.microsemi.com/	MO86751C	Microwave generation source
E-H tuner	SPC ELECTRONICS CORPORATION http://www.spc.co.jp/index.html		microwave component
Circulator	SPC ELECTRONICS CORPORATION http://www.spc.co.jp/index.html		microwave component
Rectangular waveguide	SPC ELECTRONICS CORPORATION http://www.spc.co.jp/index.html		microwave component
Double ridge waveguide	SPC ELECTRONICS CORPORATION http://www.spc.co.jp/index.html		microwave component
Crystal mount	SPC ELECTRONICS CORPORATION http://www.spc.co.jp/index.html		microwave component
Acetone	KANTO CHEMICAL CO.,INC. https://www.kanto.co.jp/	GE00001	Sample cleaning
Sulfuric acid	KANTO CHEMICAL CO.,INC. https://www.kanto.co.jp/	GE00257	Acidic aqueous solution
Hydrochloric acid	KANTO CHEMICAL CO.,INC. https://www.kanto.co.jp/	GE00238	Acidic aqueous solution
Hydrogen fluoride	KANTO CHEMICAL CO.,INC. https://www.kanto.co.jp/	18083-1B	Acidic aqueous solution
Sodium hydroxide	KANTO CHEMICAL CO.,INC. https://www.kanto.co.jp/	37184-00	Alkaline aqueous solution
Sodium sulfate	KANTO CHEMICAL CO.,INC. https://www.kanto.co.jp/	37280-00	Neutral aqueous solution