

Materials List for:

Light Enhanced Hydrofluoric Acid Passivation: A Sensitive Technique for Detecting Bulk Silicon Defects

Nicholas E. Grant¹

¹Research School of Engineering, Australian National University

Correspondence to: Nicholas E. Grant at nicholas.grant@anu.edu.au

URL: <https://www.jove.com/video/53614>

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Materials

Name	Company	Catalog Number	Comments
Hydrofluoric acid (48%)	Merck Millipore, http://www.merckmillipore.com/AU/en/product/Hydrofluoric-acid-48%25,MDA_CHEM-100334	1003340500	Harmful and toxic. Any supplier could be used provided the chemical is Analytical Reagent (AR) grade.
Hydrochloric acid 32%, AR	ACI Labscan, http://www.rcilabscan.com/modules/productview.php?product_id=1985	107209	Harmful and toxic. Any supplier could be used provided the chemical is Analytical Reagent (AR) grade.
Ammonia (30%) Solution AR	Chem-supply, https://www.chemsupply.com.au/aa005-500m	AA005	Harmful and toxic. Any supplier could be used provided the chemical is Analytical Reagent (AR) grade.
Hydrogen Peroxide (30%)	Merck Millipore, http://www.merckmillipore.com/AU/en/product/Hydrogen-peroxide-30%25,MDA_CHEM-107209	1072092500	Harmful and toxic. Any supplier could be used provided the chemical is Analytical Reagent (AR) grade.
Tetramethylammonium hydroxide (25% in H ₂ O)	J.T Baker, https://us.vwr.com/store/catalog/product.jsp?product_id=4562992	5879-03	Harmful and toxic. Any supplier could be used provided the chemical is Analytical Reagent (AR) grade.
640 ml round plastic container	Sistema, http://sistemaplastics.com/products/klip-it-round/640ml-round		This is a good container for storing the 15% HF solution in.
WCT-120 lifetime tester	Sinton Instruments, http://www.sintoninstruments.com/Sinton-Instruments-WCT-120.html		
Dell workstation with Microsoft Office Pro, Data acquisition card and software including Sinton Software under existing license.	Sinton Instruments, http://www.sintoninstruments.com		
Halogen optical lamp, ELH 300 W, 120 V	OSRAM Sylvania, http://www.sylvania.com/en-us/products/halogen/Pages/default.aspx	54776	Any equivalent lamp could be used.
Voltage power source	Home made power supply		Any power supply could be used provided it can produce up to 90 Volts and 1-5 Amps.
Conductivity meter	WTW, http://www.wtw.de/uploads/media/US_L_07_Cond_038_049_I_02.pdf	LF330	