

Materials List for:

Monolayer Contact Doping of Silicon Surfaces and Nanowires Using Organophosphorus Compounds

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Materials

Name	Company	Catalog Number	Comments
High purity silicon wafers	Topsil	-	
50 nm Si ₃ N ₄ /50 nm SiO ₂ /Si wafers	Silicon Valley Microelectronics	-	
Sulfuric Acid 98%	BioLab	19550523	
Hydrogen Peroxide 30%	J.T. Baker	2190-03	
Ammonium Hydroxide 25%	J.T. Baker	6051	
Ethanol	J.T. Baker	8025	
Mesitylene	Sigma	M7200	
Dichloromethane	Macron	4881-06	
Tetraethyl methylenediphosphonate	Aldrich	359181	
Mineral Oil	Sigma	M3516	
Hydrofluoric Acid 49%	J.T. Baker	9564-06	
Isopropanol	J.T. Baker	9079-05	
N-Methyl-2-pyrrolidone	J.T. Baker	9397-05	
AZ nLOF2020	AZ Electronic Materials	nLOF 2020	
AZ 726 MIF	AZ Electronic Materials	726 MIF	
Poly-L-Lysine solution	Sigma	P8920	
Gold colloid solution	Ted Pella	82160-80	
RTA system	AnnealSys	MicroAS	
4 point probe sheet resistance measurement system	Jandel	RM3-AR	
Mask aligner	Suss	MA06	
e-Beam evaporator	VST	TFDS-141E	
Semiconductor analyzer	Agilent	B1500A	
CVD system	-	-	Home-built