

**Department of Optoelectronics, University of Kerala, Kariavattom,  
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OPTO/P-CHE-03/2019-20

**Quotation Notice**

Quotations for entering in to rate contract are invited for the following chemicals (Preferable make: Sigma- Aldrich, Alfa Aesar, Merk Life science etc.) in the Department of Optoelectronics, University of Kerala, Kariavattom, Thiruvananthapuram.

Sl. No.	Chemical	Chemical Formula	Purity (%)	Quantity required
1	Silver powder	Ag	99.99	20 gm
2	Terbium Oxide	Tb <sub>4</sub> O <sub>7</sub>	99.99	25 gm
3	Manganese Oxide	MnO <sub>2</sub>	99.99	25 gm
4	Molybdenum Oxide	MoO <sub>3</sub>	99.99	25 gm
5	Lithium Oxide	Li <sub>2</sub> O	99.99	20 gm
6	Ytterbium powder	Yb	99.9	20 gm
7	Dysprosium powder	Dy	99.99	20 gm (2)
8	Titanium (IV) Oxide , anatase, <25nm	TiO <sub>2</sub>	99.7% trace metal basis	50gm
9	Copper (II) Oxide, <50 nm	CuO	99.9%	25 gm
10	Poly Vinyl Alcohol (PVA) M <sub>w</sub> =145000 99% hydrolyzed	C <sub>2</sub> H <sub>4</sub> O		500gm
11	Isooctane	C <sub>8</sub> H <sub>18</sub>	≥99.0%	500ml
12	Acetic Acid	CH <sub>3</sub> COOH	≥99.7%	500 ml
13	Boron Carbide (Orthorhombic)	B <sub>8</sub> C	99.9%	50 gm
14	Boric Acid	H <sub>3</sub> BO <sub>3</sub>	99.9%	500 gm
15	Sodium Borohydride	NaBH <sub>4</sub>	99.9%	500 gm
16	Acetone	C <sub>3</sub> H <sub>6</sub> O	≥99.8%	10 L
17	2 - Propanol (IPA)	C <sub>3</sub> H <sub>8</sub> O	≥99.8%	10 L
18	Nitric Acid	HNO <sub>3</sub>	70 %	500 ml
19	Sulfuric Acid	H <sub>2</sub> SO <sub>4</sub>	95.0 to 98.0 %	500 ml
20	Hydrochloric Acid	HCl	37%	500 ml
21	Sodium Hypochlorate	NaClO	chlorine 4.00-4.99 %	500 ml
22	Sodium dodecyl sulphate	NaC <sub>12</sub> H <sub>25</sub> SO <sub>4</sub>	≥99.0%	25 gm
23	Hydrogen Peroxide solution	H <sub>2</sub> O <sub>2</sub>	3 wt. % in H <sub>2</sub> O	500 ml
24	1-Butyl-3 methyllimidazodium iodide	C <sub>8</sub> H <sub>15</sub> IN <sub>2</sub>	99%	5 gm
25	Lithium iodide	LiI	99%	10gm

26	4-tert butyl 1 pyridine	C <sub>9</sub> H <sub>13</sub> N	≥98%	1 gm (10)
27	Iodine	I	≥99%	10 gm
28	Guanidium thiocyanate	C <sub>2</sub> H <sub>6</sub> N <sub>4</sub> S	≥99%	100 gm
29	Acetonytrile	Al <sub>2</sub> O <sub>3</sub>	99.8%	250 ml
30	Chloroplatinic acid	H <sub>2</sub> PtCl <sub>6</sub>	99%	100 ml (2)
31	Platinum	Pt		2 gm
32	Aluminium oxide	Al <sub>2</sub> O <sub>3</sub>		25 gm
33	Iron	Fe		10 gm
34	Cobalt	Co		10 gm
35	Nickel	Ni		10 gm
36	Lithium	Li		10 gm
37	Palladium powder	Pd		10 gm
38	Europium oxide	Eu <sub>2</sub> O <sub>3</sub>		10 gm, 25 gm
39	Tin oxide	SnO <sub>2</sub>		25 gm
40	Barium Carbonate	BaCO <sub>3</sub>		25 gm
41	Zinc nitrate hexahydrate	Zn(NO <sub>3</sub> ) <sub>2</sub> 6H <sub>2</sub> O	99.2%	500 gm
42	Maleic acid	C <sub>4</sub> H <sub>4</sub> O <sub>4</sub>	99 %	500 gm
43	Nickel nitrate	Ni(NO <sub>3</sub> ) <sub>2</sub>	99.2 %	500 gm
44	Silver nitrate	AgNO <sub>3</sub>	99.2 %	500 gm
45	Sodium lauryl sulphate	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>10</sub> CH 2(OCH <sub>2</sub> CH <sub>2</sub> )O SO <sub>3</sub> Na	99 %	500 gm
46	Cetyl trimethyl ammonium bromide	C <sub>19</sub> H <sub>42</sub> BrN	99 %	500 gm
47	Coumarin 343 (dye content 97%)	C <sub>16</sub> H <sub>15</sub> NO <sub>4</sub>		500 mg
48	Single walled carbon nanotubes, tube diameter 1 nm		99 %	25 gm
49	Functionalized carbon nanotubes, tube diameter 1 nm		92 %	25 gm
50	Multiwalled carbon nano-20µm, tube diameter-20nm		99%	25 gm
51	Graphene thickness 0.8-1.6 nm		99%	
52	Graphite		99%	25 gm
53	Cobalt phthalocyanine	C <sub>32</sub> H <sub>16</sub> CoN <sub>8</sub>	99%	1 gm (2)
54	Acetone Emplura	CH <sub>3</sub> COCH <sub>3</sub>		2.5 L
55	Petridish(100*17)[plastic]			10 nos
56	Dysprosium oxide	Dy <sub>2</sub> O <sub>3</sub>	99.99%	5 G
57	Silver paste	Ag		
58	Gadolinium oxide	Gd <sub>2</sub> O <sub>3</sub>	99.99%	25 G
59	Ethanol	C <sub>2</sub> H <sub>5</sub> OH	99%	

60	Isopropyl alcohol	C <sub>3</sub> H <sub>8</sub> O		
61	DMSO (Dimethyl sulfoxide)	C <sub>2</sub> H <sub>6</sub> OS		
62	Chloroform	CHCl <sub>3</sub>		
63	Methanol (HPLC grade)	CH <sub>3</sub> OH		
64	Ethyl Acetate	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>		
65	Silicon oil (pure)			
66	Palladium (II) nitrate dehydrate	Pd(NO <sub>3</sub> ) <sub>2</sub>	99.99%	1 G, 5 G
67	Gold chloride	AuCl <sub>3</sub>	99.99%	500 mg, 5g

The price may clearly indicate applicable tax, packing, forwarding and handling charges. The firms who wish to supply the item are requested to submit the quotation in sealed cover to the undersigned not later than 4:30pm on 01.08.2019. Quotations will be opened at 10:30 am on next working day (02.08.2019) in the presence of the suppliers or their authorized agents.

**Please note that University can issue essentiality and DSIR certificate for the purchase @ 5% GST. Please quote the rate accordingly.**

15.07.2019



  
Professor & Head

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