

**DR. S. S. BHATNAGAR UNIVERSITY INSTITUTE OF CHEMICAL  
ENGINEERING AND TECHNOLOGY, PANJAB UNIVERSITY,  
CHANDIGARH**

Ref. No. Dr. SSBUI CET/TEQIP-III/2020/679

Dated: 06.02.2020

**To,**

**Subject :- Request of quotations for chemicals under TEQIP-III**

Note:

1. You are invited to submit your most competitive quotation for the following goods given at **Annexure 1-7**. Please send the quote in the given sequence only without making any changes and if you are not able to quote any item please put a dash in that column.
2. The price/rate so quoted should be per unit or for a pack as the case may be. In case of a single pack the quantity in it should be mentioned.
3. **For the chemicals, etc. listed in the Notice Inviting quotation (NIQ), of /for those make/brand/catalogue No. or else is particularly mentioned, only for those the rate/price should be quoted in the quotation.**
4. For chemicals, etc. for which there is no mention of a particular make/brand/catalogue number or else, the price/rate be mentioned only for the pack/quantity or else as per mentioned in the Notice Inviting Quotation (NIQ).
5. The validity of the quotation should be for a period of 01 year from the due (last) date of submission of the quotation.
6. The Govt. levies viz-Sales Tax/GST Excise duty, etc. if any, so chargeable should be clearly mentioned in the quotations.
7. GST @ 5% would be chargeable extra & for the purpose a Certificate will be issued for the items/articles are supplied in accordance with the bill.

8. The make/model/type/detail specifications/configuration, salient features etc. if any, should be mentioned. Also the relevant catalogue, if any, be sent along with the quotation.
9. The bill would be processed by the institute within 02 week after satisfactory receipt and inspection of material.
10. The discount if any for academic institute should also be mentioned.
11. The vendors with valid GST should send the quotation only.
12. The quotation should reach in the office of this institute by **25.02.2020 by 04.00 p.m.**

P.S.

Quotation should be addressed to/in favor of **PROJECT HEAD, TEQIP-III, 2ND FLOOR, Dr. S.S BHATNAGAR UNIVERSITY INSTITUTE OF CHEMICAL ENGINEERING AND TECHNOLOGY, PANJAB UNIVERSITY CHANDIGARH-160014**, and sent under a sealed cover (envelope) subscribing **'QUOTATION FOR CHEMICALS, etc'. UNDER TEQIP-III**, along with office reference number (if any).

Prof. Anupama Sharma  
Project Coordinator  
TEQIP-III

Prof. Amrit Pal Toor  
Project Head  
TEQIP-III

### Annexure-I

Item no.	Chemical name	Make	CAS No.	Requirement
1.	Chloroform	CDH	67-66-3	500ml
2.	1,3 butane diol	CDH	107-88-0	500ml
3.	1,4 butane diol	CDH	110-63-4	500ml
4.	Cellulose Acetate	CDH	9004-35-7	500gm
5.	Cellulose Powder	CDH	9004-34-6	500gm
6.	Caprolactum	CDH	105-60-2	500gm
7.	Di chloromethane	CDH	75-09-2	250ml
8.	Di ethylene glycol	CDH	111-46-6	500ml
9.	1,2- propane diol	CDH	57-55-6	500ml
10.	Ethylene diamine	CDH	107-15-3	500ml
11.	Ethylene Glycol	Sigma	107-21-1	100ml
12.	Hexamethylene Diisocyanate	Sigma	822-06-0	25ml
13.	Poly ethylene glycol	Sigma	25322-68-3	500gm
14.	Aluminium Iso propoxide	Sigma	555-31-7	100gm
15.	1,3 óPropane diol	Sigma	504-63-2	100gm
16.	Di ethyl amine	Sigma	109-89-7	500ml
17.	Chlorobenzene	Lobachemie	108-90-7	2.5L
18.	Nitrobenzene	Lobachemie	98-95-3	2.5L
19.	Tetrachloroethylene	Lobachemie	127-18-4	2.5L
20.	Monosodium 2-sulfoteriphthaleic acid	TCI	19089-60-2	1L
21	Titanium (IV)isopropoxide	546-68-9	500ml	Avra
22	Trifluoromethanesulfonate	27607-77-8	10g	Sigma Aldrich
23	Sodium hexafluorophosphate	21324-39-0	10g	Sigma Aldrich
24	Acetic Acid	64-19-7	1litre	LobaChemie

25	Orthophosphoric Acid	7664-38-2	1 litre	Sigma Aldrich
26	p-Toluenesulfonyl chloride	98-59-9	250g	Sigma Aldrich
27	Palladium (II) chloride	7647-10-1	1g	LobaChemie
28	Platinum (II) chloride	18497-13-7	1g	LobaChemie
29	N propyl chloride	540-54-5	100 ml	Sigma Aldrich
30	1-Chlorobutane	109-69-3	500 ml	LobaChemie
31	Toluene	108-88-3	2.5 litre	LobaChemie
32	Lactic acid	50-21-5	500 ml	SRL
33	Benzyl chloride	100-44-7	500 ml	LobaChemie

## Annexure-2

Sr. No.	Chemicals	Make	CAS No.	Quantity
1.	DPPH(1,1-diphenyl-2-picrylhydrzyl)	HIMEDIA	RM2798	1 gm
2.	Whey powder protein concentrate	Healthcart	890607022738	500 gm
3.	Mango seed powder	Neoteric	B0721T5	1kg
4.	Quinoa powder	Nutricargo, Sattvic foods	FR*1201	2kg
5.	Glycerol	Thermofischer scientific	56-81-5	1.5 litre
6.	Sorbitol	Thermofischer	50-70-4	1 litre

### Annexure-3

S.No.	Particulars	SKU-Pack size	
1.	Lithium chloride, Sigma aldrich	213233-100G	100g
2.	Sodium chloride, ACS reagent 99.0% Sigma aldrich	S9888-500G	500g
3.	Potassium chloride, for analysis EMSURE, Sigma aldrich	1049360250	250g
4.	Rubidium chloride, 99.8% trace metal basis, Sigma Aldrich	215260-10G	10g
5.	Cesiumchloride, Reagent plus Sigma aldrich	289329-25G	25g
6.	Methanol, ACS reagents, Sigma aldrich	179337-1L	1000ml
7.	Butyl acetate, ACS reagents 99.5%, Sigma Aldrich	402842-500ml	500ml
8.	1,2-Dimethoxyethane, Reagent plus, sigma aldrich	E27408-500ml	500ml
9.	<a href="#">Methylamine Hydro iodide (Low water content)</a> >99.0%(N)(T), TCI Chemicals	14965-49-2-5g	5g
10.	<a href="#">Tin(II) Iodide(SnI2) [for Perovskite precursor]</a> >97.0%(T), TCI Chemicals	10294-70-9-1g	1g
11.	<a href="#">Lead(II) Iodide (99.99%, trace metals basis) [for Perovskite precursor]</a> >98.0%(T), TCI Chemicals	10101-63-0-5G	5g

#### **Disposable Plastic tips for Micropipette**

S No.	Particulars	code	Capacity(microlitre)	Packing
1.	Micro tips	521000	0.2-10	2000pieces
2.	Micro tips	Fixed volume	500	10 packs

#### **Glassware**

S No.	Particulars	Cat. No.	Capacity(ml)	DIN Thread	Qty
1.	Reagent Bottles, OMSONS, Boro 3.3	243/1	10	GL25	100
2.	Reagent Bottles, OMSONS, Boro 3.3	243/2	25	GL25	100
3.	Reagent Bottles, OMSONS, Boro 3.3	243/3	50	GL32	100
4.	Flat bottom Vials (sample bottles) with cap	Borosil or equivalent	15		200
5	Flat bottom Vials (sample bottles) with cap	Borosil or equivalent	30		200

6.	Flat bottom Vials (sample bottles) with cap	Borosil or equivalent	60		200
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### Annexure 4

S.No	Name of item	Make	Cat. No./ CAS No.	Requirements
1.	Methanol	Merck	67-56-1	1 L
2.	Dimethylformamide (DMF)	Merck	68-12-2	2 L
3.	1,6-diaminohexanedihydrochloride	TCI	6055-52-3	25 mg
4.	2 Amino terephthalic acid	Sigma Aldrich	381071-25G	25 g
5.	Rhodamine 6G	Sigma Aldrich	989-38-8	5 g
6.	Zirconium chloride	Merck	647640-5G	5 g
7.	Ethylene glycol	SD fine	107-21-1	1 L
8.	Silver phosphate	Sigma Aldrich	337382-25G	25 g
9.	Platinum Chloride	Merck	10025-65-7	250 mg
10.	Polyvinylpyrrolidone	Merck	5295-100GM	100 gm
11.	Sodium Borohydride	Sigma Aldrich	16940-66-2	5 g
12.	Hydrazine	Sigma Aldrich	7803-57-8	5 g
13.	Gold (III) chloride	Sigma Aldrich	16903-35-8	10 g
14.	Trisodium citrate	Merck	68-04-2	500 g
15.	Palladium (II) chloride	Sigma Aldrich	7647-10-1	1 g
16.	Ethanol	Merck	64-17-5	5 L
17.	Yttrium (III) nitrate hexahydrate	Merck	13494-98-9	25 g
18.	Ytterbium (III) nitrate pentahydrate	Merck	35725-34-9	10 g
19.	Polyethyleneimine	Merck	9002-98-6	100 mL
20.	Ammonium Fluoride	Merck	125-01-8	250 g
21.	Erbium (III) nitrate pentahydrate	Sigma Aldrich	10031-51-3	10 g
22.	Oleic acid	Sigma Aldrich	112-80-1	1 g
23.	Neodymium (III) nitrate hexahydrate	Sigma Aldrich	16454-60-7	25 g
24.	1-octadecene	Merck	112-88-9	1 L
25.	Cetyltrimethyl ammonium chloride	Merck	112-02-7	25 mL
26.	Tetraethyl orthosilicate	Merck	78-10-4	500 mL
27.	Diethylene glycol	Merck	111-46-6	25 mL
28.	(3-aminopropyl)triethoxysilane	Merck	919-30-2	100 mL
29.	Terbium (III) nitrate hexahydrate	Merck	13451-19-9	500 mg
30.	Sulfamethoxazole	Merck	723-46-6	10 g



### Annexure-5

S.No	Chemical Name	CAS No.	Quantity	Make
1.	Glycerol Anhydrous EMPARTA Cat. No 1.07051.9027	56-81-5	25 litre	Merck
2.	Carbon Tetrachloride	56-23-5	2.5 litre	Merck
3.	Formaldehyde	50-00-0	500 ml	Sigma Aldrich
4.	Polyacrylamide	9003-05-8	100 g	National Chemicals
5.	Acetone	67-64-1	2.5 litre	LobaChemie

### Annexure-6

Sr.No	Chemical Name	Company/Prod-ID/No
1.	Cobalt nitrate	Sigma aldrich/239267-500G
2.	Zinc nitrate	Sigma aldrich/228737-500G
3.	Magnesium nitrate	Sigma aldrich/M5296-1KG
4.	Citric acid	Sigma Aldrich/27109-2.5KG-R
5.	Chloroform	Sigma Aldrich/C2432-100ml
6.	Sodium alginate	Sigma Aldrich/W201502-1KG
7.	Hydrogen peroxide	Sigma Aldrich/323381-500ml
8.	Gelatine	Sigma Aldrich/48723-500G-F
9.	Hydrochloric acid	Sigma Aldrich/320331-500ml
10.	Phosphoric acid	Sigma Aldrich/W290017-1KG-K
11.	Iron nitrate	Sigma Aldrich/254223-50G
12.	Absolute ethanol	Sigma Aldrich/459844
13.	PVA (Polyvinyl alcohol boric acid)	Sigma Aldrich - 10847-250G
14.	Titanium(IV) butoxide	Sigma aldrich/244112-500G
15.	Barium nitrate	Sigma aldrich/202754-100G
16.	Barium carbonate	Sigma Aldrich/237108-500G
17.	Titanium dioxide	Sigma Aldrich/204730-5G
18.	Copper oxide	Sigma Aldrich/544868-25G
19.	Lanthanum oxide	Sigma Aldrich/L4000-100G
20.	FTO glass slide	Sigma Aldrich/735221-1EA
21.	Zinc Powder	Sigma Aldrich /324930-10G
22.	P3HT-poly (3-hexylthiophene-2,5-diyl)	Sigma Aldrich/445703-1G
23.	Spiro-OMeTAD (2,2',7,7'-tetrakis(N,N'-di-p-methoxyphenyl-amino)-9,9'-spirbiuorene)	Sigma Aldrich/ 765007-1G
24.	Ascorbic acid	Sigma Aldrich/ A4403-100MG
25.	Methylammonium iodide	Sigma Aldrich/901434-10G
26.	Bismuth(III) iodide	Sigma Aldrich/341010-25G

## Annexure-7

Sr.N.	Chemical Name	Requirement	Qty.	Make
1	Toluene	5ltr	1	MERCK
2	Sodium periodate	500gm	1	LOBA
3	Ferric chloride	500gm	1	LOBA
4	Ferrous chloride	500gm	1	LOBA
5	Lead nitrate	500gm	1	MERCK
6	Mercury acetate	250gm	1	MERCK
7	Copper acetate	250gm	1	MERCK
8	Arginine	500gm	1	LOBA
9	Lead chloride	250gm	1	LOBA
10	Hydrogen peroxide 30% EXTRA PURE	5 ltr	1	LOBA
11	Zinc chloride	250gm	1	LOBA
12	Formaldehyde	2.5 ltr	1	MERCK
13	Dimethylformamide	2.5ltr	1	MERCK
14	Benzene	2.5ltr	1	MERCK
15	Diethyl formamide	1ltr	1	MERCK
16	Hydrochloric acid	2.5ltr	2	LOBA
17	Phosphate Buffer 7.4	250gm	4	merk
18	Chitosan	500gm	4	LOBA
19	Starch (corn)	500gm	4	MERCK
20	Cellulose powder	500gm	2	LOBA
21	Ethylene glycol	500ml	1	MERCK
22	Lead acetate	500gm	1	MERCK
23	Tempo((2,2,6,6-Tetramethylpiperidin-1-yl)oxyl	250gm	1	Loba
24	Sodium hypo chlorite	250gm	1	merck
25	Sodium hypo bromide	250gm	1	Sigma Aldrich
26	Methyltriethoxysilane	500ml	1	MERCK
27	Propan-1-ol	500ml	2	MERCK
28	Silver nitrate	100gm	1	LOBA
29	Polyvinyl alcohol	500gm	1	MERCK
30	Ethanol 99% extra pure	2.5 ltr	1	fisher
31	Choline chloride	500gm	1	MERCK
32	Thionyl chloride	500ml	1	Sigma Aldrich
33	5-aminoisophthalic acid	250gm	1	Sigma Aldrich
34	Propanoic anhydride	500ml	1	LOBA
35	Glycerol	500ml	1	MOLBASE
36	Hydroxylamine hydro chloride	500gm	1	MERCK
37	Chromium chloride	500gm	1	MERCK

38	Cadmium sulphate	500gm	1	SIGMA ALDRICH
39	Diaminomaleonitrile	100gm	1	Sigma aldrich
40	Acetic anhydride	500ml	1	Sigma Aldrich
41	Maleic anhydride	500gm	1	SIGMA ALDRICH
42	Fumaric acid	500gm	1	LOBA
43	Maleic acid	500gm	1	Sigma Aldrich
44	Ethanol	2.5ltr	1	Sigma Aldrich
45	Thiourea	500gm	1	Sigma Aldrich
46	Zinc nitrate	500gm	1	Loba
47	Nickel sulphate	500gm	1	loba
48	Aluminium sulphate	500gm	1	MERCK
49	Copper sulphate	500gm	1	LOBA
50	Titanium oxide nanoparticle 100nm	200gm	1	merk
51052	Arsenic sulphide	250gm	1	Sigma adrich
53	1-ethyl -3-(3dimethyl aminopropyl)carbodiimide	5gm	1	MERCK
54	Vanadylsulfate	250gm	1	<b>LOBA</b>
55	N-hydroxysuccinimide	50gm	1	Sigma Aldrich
56	Acrylic resin	500gm	1	Sigma Aldrich
57	Zirconium phosphate	500gm	1	Sigma Aldrich
58	Zinc oxide	250gm	1	LOBA
59	Acrylonitrile	500ml	1	MERCK
60	Kraft lignin	500gm	1	Sigma Aldrich
61	lignosulfonate	500gm	1	Sigma Aldrich
62	Methyl diphenyl diisocyanate	500ml	1	merk
63	Magnesium chloride	500gm	1	LOBA
64	Magnesium nitrate	500gm	1	LOBA
65	N,N-methylenebisacrylamide	500gm	1	LOBA
66	Ammonia	500ml	1	Segimaaldr ich
67	pH strips	100	1	MERCK
68	Succinic anhydride	100gm	1	LOBA

69	glycidylmethacrylate	100ml	1	Sigma Aldrich
70	5,5-dithiobis(2-nitrobenzoic acid)	25gm	1	Thermos fisher