

FOPD Procurement Plan 2024-2029

EQUIPMENT

Sr. No	Item Category	Sub Category	Item
1	Perform Fabrication	Equipment	Up gradation of existing MCVD-VPCD system
2.			Outside Plasma Deposition System
3.	Fiber Fabrication		Up gradation of fiber drawing tower (Control Panel/Drives)
4.			Soft glass fiber drawing tower
5.	Optics, Optical Instruments, Equipments and Laser Systems		Glass processing unit for fiber combiner making.
6.			Fiber Analyser
7.			Preform Analyzer
8.			Large diameter cleaver and splicer
9.			1000 class clean room facility
10.			Electrical spectrum analyzer
11.			Self-referenced frequency synthesizer
12.			Vibration resistant optical table and table top platforms
13.			Second harmonic generation system (Crystals and Ovens)
14.			Automated glass processing workstation
15.			Optical spectrum analyzer for mid-IR spectral domain
16.			OPO crystals and components
17.			Real time storage oscilloscope
18.			Rubidium Clock
19.			Advanced Optical Fiber Cleaver
20.			IFA-100 fiberanalyzer
21.			Soft glass processing unit
22.	IT and Computational Items		Printer – colour and b/w
23.			UPS
24.			Monitor
25.			Desktop computer
26.		Workstation	

CONSUMABLES

Sr. No	Items	Category
1.	<p>R & D consumables for closed loop system (By equipment name)</p> <ul style="list-style-type: none"> Pump diodes, Isolators, combiner, FBG, water cooled heat sink, Specialty Fibers (ex. Component fiber, photosensitive fiber, pump fiber etc.) related to standard 2.0 kW high power laser test bed system Phase mask and optical components for FBG writing system Stainless steel bubbler of chelate delivery system MFC's related to the GCM of MCVD system Optical Components (Mirrors, Lenses, Objectives, Gratings, Non-Linear Crystals, Combiners, etc) Laser Pump Diodes (Wavelength Stabilised and Non-Stabilised) Optomechanical Components (Stands, Holders, Transitional stage, Isolation Stage, Cleaving Blades, Holders and Filaments for Glass Processing Unit, etc) Optical Gain Fibers (Active Fibers) Fiber Draw Tower consumables/accessories. 	Consumables
2.	<p>Chemicals:</p> <ul style="list-style-type: none"> Optipure (99.9999%) graded SiCl_4 GeCl_4 and POCl_3 High purity (99.999%) Yb chelate and anhydrous AlCl_3 Low RI resin PC-375LAP along with normal primary & secondary coating (LS-2211, LS 3211 & LP-1635) Silicon Tetrachloride (SiCl_4) Purity : 99.9999% i.e; 6N Grade 2. Germanium Tetrachloride (GeCl_4) Purity: 99.9999% i.e 6N Grade 3. Phosphorous Oxychloride (POCl_3) Purity: 99.9999% i.e 6N Grade. 4. Anhydrous Aluminium Chloride (AlCl_3) Purity: 99.999% 5N Grade 5. Ytterbium (III) Tetramethyl heptanedionate [$\text{Yb}(\text{thd})_3$] Purity: 99.999% i.e 5N Grade or better. 6. Cerium (IV) Tetramethylheptanedionate [$\text{Ce}(\text{thd})_4$] Purity: 99.999% i.e 5N Grade or better. 7. Thulium (III) Tetramethylheptanedionate [$\text{Tm}(\text{thd})_3$] Purity: 99.999% i.e 5N Grade or better. Acetone Isopropyl Alcohol Ethanol 	
3.	<p>Other consumables</p> <ul style="list-style-type: none"> Millipore filter Analyses of dopants distribution along the core of fiber by EPMA Grinding and polishing of circular preform into octagonal shaped structure by automatic grinding and polishing machine 	
4.	<p>Glass wares (Ex. Name the glass wares):</p> <ul style="list-style-type: none"> Silica Tubes (20/17mm, 20/12mm and 10/4mm) 	
5.	<p>Plastic wares (Ex. Name the different plastic wares):</p> <ul style="list-style-type: none"> Millipore filter, Gaskets, O-rings etc for of MCVD-VPCD system 	
6.	<ul style="list-style-type: none"> Toner Cartridges 	
7.	<p>Batteries etc.</p> <ul style="list-style-type: none"> UPS batteries replacement 	
8.	<p>Gases (Ex. Tentative names): For specialty optical fiber's development: -</p>	

	<ul style="list-style-type: none"> • High purity gases such as: Commercial H₂ (99.5%) and O₂ (99.97%) fuel gases • High purity nitrogen gases of 99.999% • High purity (99.999%) He and Argon inert gases • Very high purity (99.9995%) He gas • Very high purity (99.9995%) O₂ gases • Very high purity (99.999%) SiF₄ gases • Very high purity (99.999%) CF₄ gases • Very high purity (99.999%) Cl₂ gas 	
9.	<p>Maintenance/AMC/Repairing existing equipment:</p> <ul style="list-style-type: none"> • Maintenance/Repairing job related to up gradation of existing MCVD-VPCD system, the OPD system and up gradation of fiber drawing tower through making of all kind of gas lines, suction hoods, scrubber etc. • AMC of UPS connected to MCVD-VPCD system, old MCVD system etc. 	
10.	<p>Stationary items:</p> <ul style="list-style-type: none"> • Note book, File cover, file board, Sticky note, Papers Eraser, Marker, stapler, punching machine, Tape, scissors etc 	