



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION
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PR No.1000016424

RFx No. 6100000708

Technical Specifications for Automated Oligosacchride Synthesizer

- 1) **Speed and Accuracy** – delivery of solvents and reagents via Argon pressure
- 2) **Versatility** – compatible with a wide range of chemistries and various solvent/reagents combinations
- 3) **Easy to use** – software designed to maximize simplicity while maintaining functionality
- 4) **Temperature control** of reaction vessel from -40 to +80 °C
- 5) **On-line UV detection** to monitor coupling efficiency
- 6) **Synthesis scale from 10-100 micromoles**
- 7) **64-position carousel** for the delivery of monosaccharide building blocks from vials
- 8) **Triple-jacketed glass reaction vessel**
- 9) **Separate Fraction and Waste collection**
- 10) **Sensors**
 - 10.1) Fmoc quantification (UV sensor)
 - 10.2) Pressure sensor for each unit
 - 10.3) Fluidic sensor
 - 10.4) Liquid level sensor for waste bottle
 - 10.5) Temperature sensor (for cooling of activating reagents)
- 11) **Bottles for Reagents** (All reagents should be in pressurized bottles)
 - 11.1) 6 x deprotecting reagents
 - 11.2) 8 x solvents
 - 11.3) 6 x activating reagents (2x cooled 8 ... 10 °C)
 - 11.4) 4 x miscellaneous reagents (e.g. reagents containing water)
 - 11.5) 64 x building block vials with septum not pressurized (just for delivery the vials get pressurized)
- 12) **Fraction collector**
 - 12.1) 26 tubes for the fraction collector for collecting contents after the reaction for offline monitoring or recovery
- 13) **Waste** 1 Waste bottle 5 L
- 14) **Electrical supply** Voltage: 230 V, 50 Hz, Current: 3 A
- 15) **Inert Gas supply** Argon or Nitrogen, 4... 8 bar (60... 120 PSI)
- 16) **Interfaces** 2 x USB, 2 x Ethernet, 1 x RS 232 (for cryostat) Argon and cryostat connectors
- 17) **Used connections** 1 x Ethernet to laptop, 1 x RS232 to cryostat
- 18) **Control Computer** Windows 10 including control software with preprogrammed cycles

19) Cooling System

Cryostat: with controller, limited to -75 °C to +100 °C and within the application to -40°C to +70°C and should include 10 L of high performance thermofluid

20) Warranty

Standard 1 Year Warranty along with instrument & Extended warranty for additional 1 year.