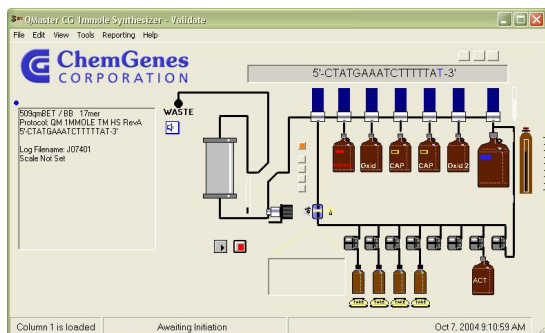


The Q Master CG

Diagnostic Scale Synthesizer

The Q Master CG Diagnostic Scale synthesizer is capable of synthesizing biopolymers at a variety of scales. Resin loading and precision of flow rates determine scale.

The Q Master CG can perform synthesis with resin quantities from 500mg to 75 grams and can operate at extremely precise flow rates for low scales requiring as low 10ml/min for delivery of monomer and as high as 250ml/min for reagents.



The Genomic Technologies, Validate™ Control Software operates in Windows NT WIN2000 WinXP and enables the user to create synthesis files in a variety of formats. The column position is loaded with the specific sequence file by clicking on the column image or by dragging and dropping a sequence file icon onto the column image. The synthesis progression is monitored in real time providing graphical

display of all synthesis parameters and sensors. At the completion of each synthesis the system stores all synthesis run data into a Microsoft Access compatible database.

The Q Master CG is equipped with a trityl monitor. This monitor allows for the acquisition and analysis of column effluent during synthesis. The system provides a special reagent delivery function that analyses synthesis performance and alters delivery of reagents to suit the synthesis needs. This is a necessity for larger scale runs. In addition, the system is capable of determining the synthesis performance by several user selectable methods and halting the synthesis progression if the performance drops below a user configurable threshold. The protocol can include a special emergency procedure, which is performed during a shutdown operation in order to cleanse the reactor and place the instrument and synthesis into a safe state.



Column effluent is continually monitored during the synthesis (*not only during deblock*). This provides a history record of the synthesis detailing the delivery and

washout of all colored reagents. The history trace is essential for a GMP record of the synthesis.

The system is equipped with two pressure sensors and can halt the synthesis if the high pressure drops below a set point.

SPECIFICATIONS

Number of columns:	1
Monomers	6 in standard configuration, expandable to 13.
Synthesis Scale	250umole to 5mmole [Custom Scales depending on Support loading and column geometry.]
Dimensions:	32"W X 164"D X 36"H
Power:	120/240VAC
Pneumatics:	Inert gas system required (45psi min).
Flow Rate:	10 to 250ml/min
Cycle Time:	15 minutes (1mmole CED DNA)
Compatibility:	All wetted parts are made of Teflon, Stainless Steel, PEEK or PPS.
Software:	Microsoft Windows (NT, Win2000, WinXP)

Q Master CG provides these additional features:

- Integrates synthesis run statistics with *SDM* and *Q Browser*
- Compatible with several industry standard sequence file formats
- Microsoft Access database format
- Audible run events notification



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