

# QUEST™ Organic Synthesizers

## Personal Productivity in the Laboratory

When you need a simple, straightforward way to accelerate organic synthesis, Quest synthesizers give you the best of both worlds: The hands-on control of traditional synthesis combined with the speed of parallel synthesis.

### Hands-on Chemistry

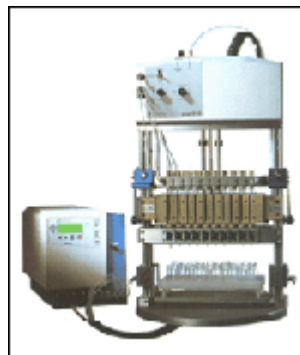
Quest synthesizers work the way you do at the bench, only faster. Using a Quest, you can run up to twenty reactions simultaneously, using a full range of synthetic methodology.

Stay in control by visually monitoring your reactions through clear Teflon® reaction vessels. Heating, cooling and mixing are adjusted using the controller key pad. Add solid or liquid reagents while maintaining not only constant temperature and agitation, but also a completely inert environment in each reaction vessel. Combine this with on-line workup and sample collection and you can manage the synthesis process - from start to finish - on a single instrument.

### A Convenient Laboratory Tool

At only 18" wide, your Quest synthesizer fits into your fume hood and rotates for access to the two banks of reaction vessels - one on each side. Your Quest is ready to use with minimal preparation - no software to program or reaction blocks to seal.

Streamline product workup by performing liquid-liquid extraction and other purification steps on-line. Choose from sample collection racks that hold scintillation vials, test tubes, or solid-phase extraction cartridges.



**QUEST 210 SLN**



**QUEST 210 ASW**



**QUEST 205**

The time-consuming multiple washing of solid-phase synthesis supports can be handled using the Automated Solvent Wash Module. This module

for unattended washing with up to four solvents.

### **The Versatility your chemistry Demands**

In Spite of their simplicity, Quest synthesizers do not limit your creativity. With the following key capabilities you will be able to use your Quest in many types of chemistry.

- A completely inert environment in each vessel allows the use of air and moisture-sensitive reagents.
- All wetted materials are made of Teflon and resist harsh reagents, solvents and reaction conditions.
- Control reaction temperatures from -40 to 130 °C, (Use a recirculating chiller for temperatures below ambient.) The two banks of reaction vessels can be set to different temperatures.
- Adjust the agitation from gentle mixing of solid supports to aggressive mixing of immiscible liquids.
- The metered gas needle valve allows precise control of vessel purging and draining times.
- Integrated solvent washing streamlines solid phase synthesis.
- On-line liquid-liquid extraction and cleavage from solid support speed product workup and purification.
- Multiple size reaction vessels are appropriate for a variety of applications: Use either 5ml or 10ml vessels on the Quest 210 and 100ml vessels on the Quest 205.

### **Quest Accessories**

Extend the capabilities of your Quest synthesizer by adding these accessories:

#### **Gaseous Reaction and concentration Module**

This module allows you to perform hydrogenations and other gaseous reactions, as well as evaporate solvents, directly in the Quest 210 reaction vessel. It comes with a control box, a manifold that directs gas to the bottom of the reaction vessels in parallel and a vapor trap manifold for use during solvent concentration.

#### **Automated Solvent Wash Module**

Eliminate the tedious task of manually washing solid-phase synthesis supports. This module performs multi-step solvent washes with up to four solvents. Delivery, agitation and drain times are programmed with the Quest controller keypad. This module comes with the Quest 210 ASW and can be added to the Quest 210 SLN and the Quest 205.

#### **Transfer Cannulas**

These cannulas attach to the lower luers to transfer reaction mixtures from one bank of reaction vessels to the other for multistep solution-phase synthesis. The cannulas come with the Quest 210 SLN and the Quest 205 and can be added to the Quest 210 ASW.

#### **Solid Phase Extraction Rack**

Accelerate product workup by using this rack to hold solid phase extraction (SPE) cartridges in place while you drain reaction vessels directly into a vial.

#### **Septa Luer Plugs**

These plugs allow the delivery of air-sensitive reagents into Quest's reaction vessels via syringe.

### **Blank Reaction Vessels**

Use blank vessels to block off unused vessel positions when you run fewer reactions than the maximum on your Quest. Blocking these positions prevents the loss of inert gas and solvent.

### **Microfunnels and Funnel Manifold**

The individual funnels fit into the top of each reaction vessel to ease the delivery of resins, dry reagents and slurries. The funnel manifold has ten integrated funnels to make it easy to add solids to all ten reaction vessels on one side of the Quest 210 at one time.

### **Weighing Funnel**

This unique flat-sided funnel design simplifies both the weighing and the delivery of solids to the Quest 205 reaction vessels.

### **Bubbler**

The bubbler allows you to visualize the inert gas flow rate on the Quest. The rate of bubble formation in the bubbler represents the gas flow through the reaction vessels.

### **Chiller Interface Kit**

This interface kit includes all the fittings necessary to attach a refrigerated recirculating chiller to your Quest for low temperature reactions.

## **Quest Specifications**

### **Reaction Vessels**

Transparent Teflon material

Disposable

Quest 210: 5ml and 10ml sizes

Quest 205: 100ml size

### **Agitation Method**

Patented vertical oscillation

### **Temperature Range**

-40 to 130 for Quest 210 ASW and Quest210 SLN

-25 to 130 for Quest 205

(Requires recirculating chiller for temperatures below ambient)

### **Collection Racks**

20 and 40 ml scintillation vials

13 × 100 mm test tubes

20 × 125 mm test tubes

Round bottom flasks

**Dimensions**

Reactor (w × d × h)

18"(45cm) × 14"(36cm) × 29"(74cm)

Weight 70 lbs

Controller Unit (w × d × h)

10"(25cm) × 16.5"(42cm) × 12"(30cm)