Prelude® X

Parallel Synthesis and Rapid Heating

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INTRODUCTION

Introducing the newest member of the industry leading fleet of peptide synthesizers: the Prelude X. Building upon the strength of the original Prelude platform, the Prelude X adds heating, oscillation shaking, and UV monitoring to deliver uncompromised speed, yield, reagent savings, and flexibility, creating the most complete peptide synthesis solution available. Flexible heating and mixing options enable fully customizable and independent protocols in all 6 reaction channels. Prelude X enables researchers to synthesize routine and difficult peptides with unparalleled speed and efficiency.

IntelliSynth UV Monitoring and Feedback Control

Figure 1: Prelude X with 6 Heated reaction vessels; minimal solvent consumption

RAPID INDUCTION HEATING

The Prelude X is the first instrument of its kind to include rapid induction heating. The patented technology takes just seconds to reach temperature, and enables controlled heating between 25° and 90° C. Each of the 6 reaction vessels is equipped, and can be independently programmed and controlled. The technology is fully-compatible with oscillation mixing, which ensures even temperature profiles, homogenous chemistry, and high yields.

FEATURES AND BENEFITS

Rapid Induction Heating- See inlay to the left

Oscillation Mixing- All 6 reaction vessels on the Prelude X are independently equipped with oscillation mixing. Combined with the fully adjustable nitrogen mixing that is also included on each reaction vessel, the Prelude X allows complete control of reaction parameters for precise and reproducible peptide synthesis.

Real-Time UV-Monitoring- Minimize trial-and-error when synthesizing difficult peptides using real-time UV monitoring on the Prelude X.

Efficient Reagent Additions- Up to 27 amino acid positions to accommodate any chemistry. Expensive reagents can be added to any reactor without priming or wasting a drop using Single-Shot™ deliveries, thus saving money with no manual intervention required and allowing greater automation capacity.

Automated Cleavage- Fully customizable cleavage options. Choose to cleave immediately (Fmoc only), at the end of a synthesis, or at a specified date and time. All PTI synthesizers are built with robust TFA-resistant materials, the Prelude X's collection positions can also be use as additional amino acid positions.

Fully Independent Channels- 6 fully independent synthesis channels that enable different sequences, scales, and protocols to be run on multiple reaction vessels.

Preactivation- The Prelude X has the ability to run 3 preactivation reactions in parallel. This is ideal for sterically hindered amino acid additions. Additionally DIC/HOBt chemistry can be optimized and go straight to scale-up.

CONCLUSION

- **Heated RVs Improve Difficult Syntheses**
- **Real Time UV Monitoring**
- **Fast Efficient Couplings**
- **Oscillation Mixing and N2 Sparge**
- **Flexible Synthesis**