



Liberty Lite 2.0
Microwave Peptide Synthesizer



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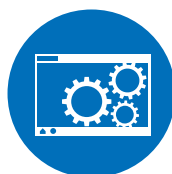


A Powerful Peptide Synthesizer

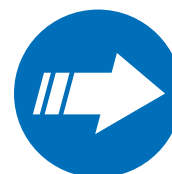
The Liberty Lite 2.0 is CEM's entry level product in its Liberty 2.0 series line. The system features fully automated microwave SPPS providing rapid synthesis times (12 min/cycles @ 0.1mmol) and economical waste production. The Liberty 2.0 provides flexibility in chemistry and the optional capability to automate up to 4 peptides in a single run.



Versatile



Simple Programming



Fast

Amino Acid Bottles
27 positions

Activation Reagent Locations
2 positions

Reaction Vessel
Flexible scale from 0.005 to 5 mmol (with high loading resins) requiring only three vessel sizes.

Microwave
Microwave technology used in patented coupling and deprotection methodology. Provides accurate and responsive control of reaction temperature.

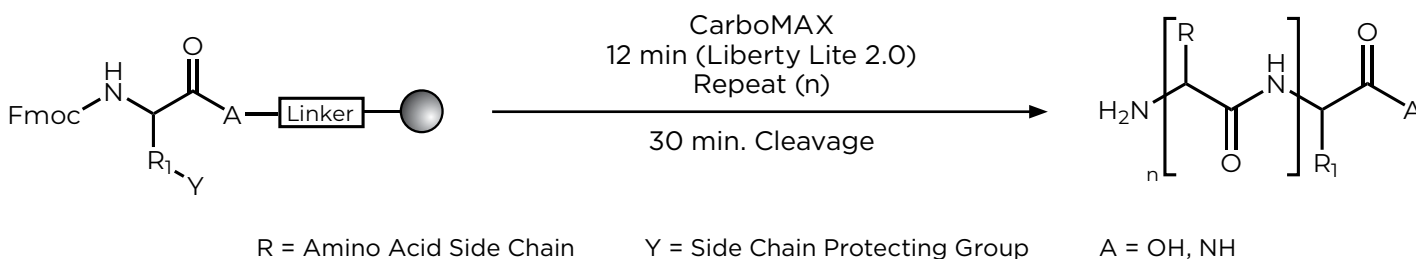
Fiber Optic
Extremely accurate measurement of temperature using an internal fiber optic cable.

HT4 (Upgrade)
Provides a much higher degree of automation, with the ability to queue up to 4 reactions to be run autonomously by the instrument. Compatible with HT4.



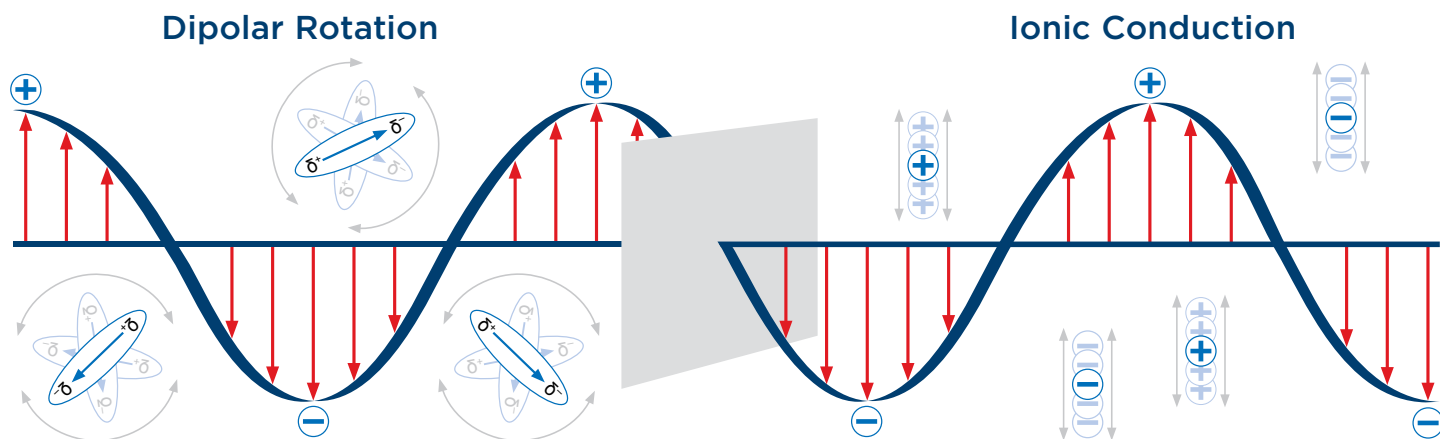
CarboMAX — Enhanced Coupling Technology

The Liberty Lite 2.0 utilizes CEM's patented CarboMAX technology which improves standard carbodiimide coupling at elevated temperature¹. This chemistry utilizes a unique ratio of carbodiimide typically results in a 5-10% purity increase compared to standard methodology by driving faster activation².



Pioneers in Microwave SPPS

The new Liberty Lite 2.0 builds on CEM's pioneering legacy in microwave peptide synthesis⁴⁻⁵. With its homogeneous microwave field distribution and internal temperature control the Liberty Lite 2.0 provides rapid, responsive, and efficient heating with the best in class speed and purity.



¹ US10,858,390; EP3290430B1; JP6677687B2

² CEM App Note: AP0124

³ US7393920; US7582728; US8058393; JP4773695

⁴ J. Pept. Sci. 2007; 13: 143

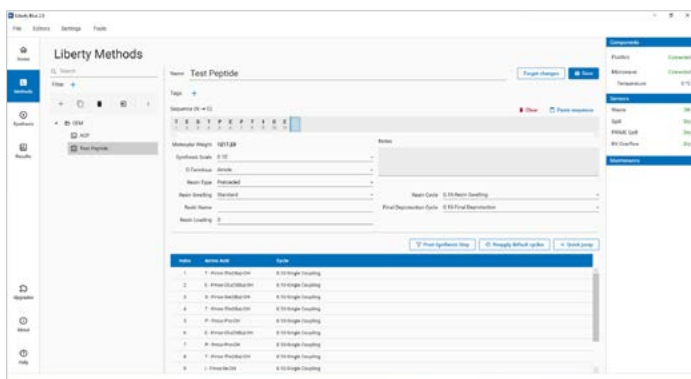
⁵ Org. Lett. 2014; 16: 940



Versatility and Performance

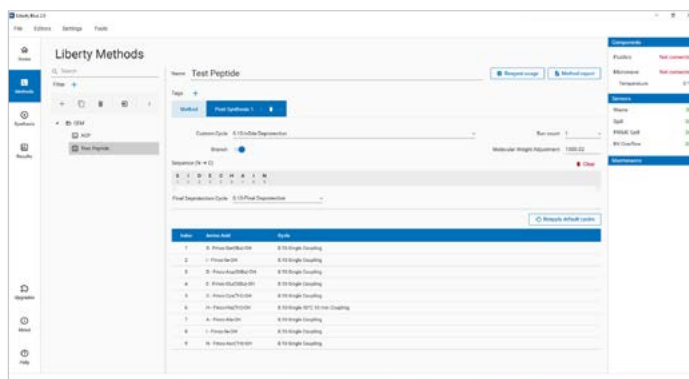
The Liberty Lite 2.0 software makes synthesizing peptides easy. It allows for easy and flexible programming of virtually any type of peptide. It also includes a full suite of calculators for preparing runs and the ability to pause, edit or monitor at any step.

Easy and Flexible Sequence Programming



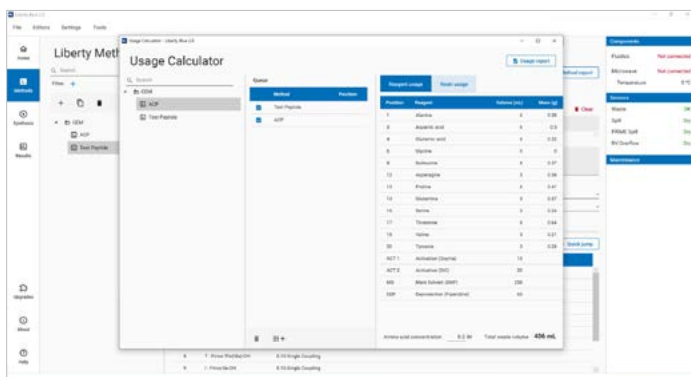
The method editor allows full customization of reaction parameters. Create, edit and store methods to streamline the run process.

Program Post-Synthesis Modification



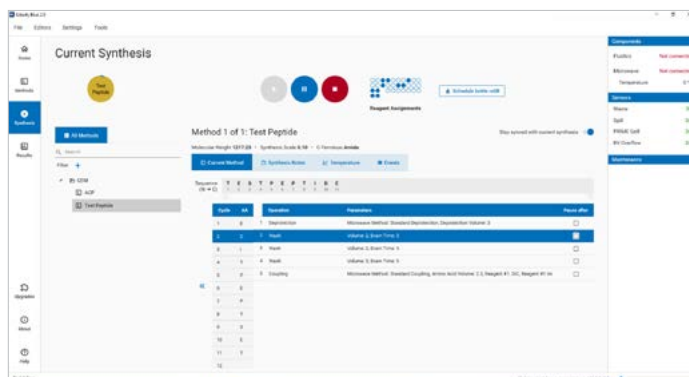
Versatile options for post-synthetic steps like branching, cyclization, orthogonal deprotection, labeling, and more. Empower your chemistry with flexible options.

Full Suite of Calculator Tools



Convenient calculators provide the reagents and amounts for a run, streamlining the process of reaction preparation.



Edit or Monitor at any Step



Easily edit and monitor reactions from the run screen. With an HT module, program a queued run, even while a synthesis is in progress.

Access the Best in SPPS

The Liberty Lite 2.0 provides an entry into CEM's Liberty 2.0 series. The Liberty Blue 2.0 and Liberty PRIME 2.0 offer further improvements in purity, speed, efficiency and throughput.

	Liberty Lite 2.0	Liberty Blue 2.0	Liberty PRIME 2.0
			
Cycle Time (at 0.1mmol)	12 minutes	4 minutes	2.5 minutes
System Waste (at 0.1mmol)	32 mL	16 mL	10 mL
Scale Range	0.005 - 5 mmol	0.005 - 5 mmol	0.005 - 5 mmol
Ultra Purity with HeadSpace Flushing	No	Yes	Yes
NO WASH – UE-SPPS	No	Yes	Yes
Amino Acid Positions	27	27	30
External Reagent Positions	4	4	5
RV Camera	No	Yes	Yes
LED Visual Feedback	No	Yes	Yes
Multiple Peptide Synthesis	Up to 4 (HT4)	Up to 4 (HT4) Up to 12 (HT12)	Up to 4 (HT4) Up to 12 (HT12) Up to 24 (HT24)
Optional Accessories	N/A	N/A	Full cGMP Compliance Package



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