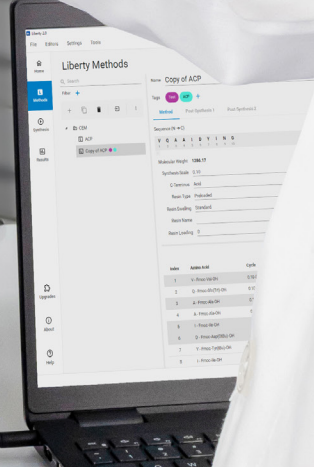




Liberty Lite 2.0  
Microwave Peptide Synthesizer



**Liberty Lite™ 2.0**  
Microwave Peptide Synthesizer

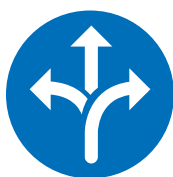


Index	Addition	Scale
1	1. 2.00000000	0.00
2	2. 0.00000000	0.00
3	3. 1.00000000	0.00
4	4. 1.00000000	0.00
5	5. 1.00000000	0.00
6	6. 1.00000000	0.00
7	7. 1.00000000	0.00
8	8. 1.00000000	0.00
9	9. 1.00000000	0.00
10	10. 1.00000000	0.00

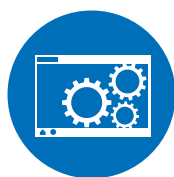


## A Powerful Peptide Synthesizer

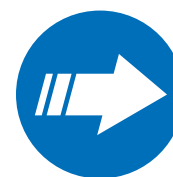
The Liberty Lite 2.0 is CEM's entry level product in its Liberty 2.0 series line. The system features fully automated microwave SPPS providing rapid synthesis times (12 min/cycles @ 0.1mmol) and economical waste production. The Liberty 2.0 provides flexibility in chemistry and the optional capability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

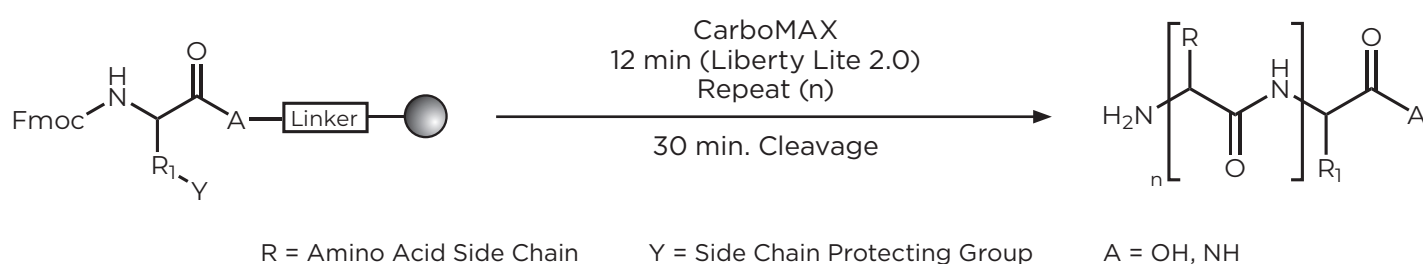
### HT4 (Upgrade)

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.



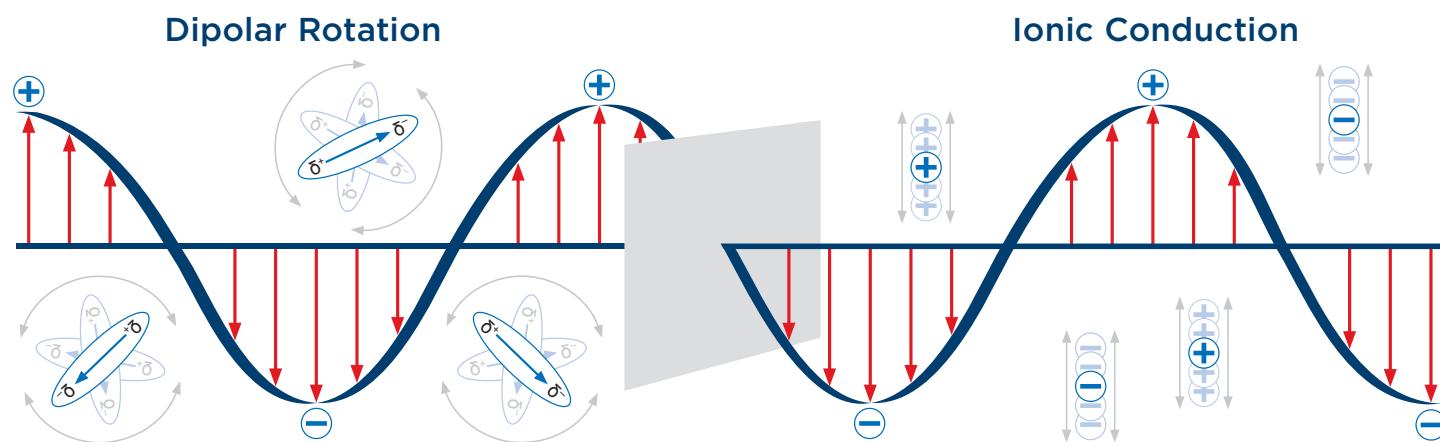
# CarboMAX — Enhanced Coupling Technology

The Liberty Lite 2.0 utilizes CEM's patented CarboMAX technology which improves standard carbodiimide coupling at elevated temperature<sup>1</sup>. This chemistry utilizes a unique ratio of carbodiimide typically results in a 5-10% purity increase compared to standard methodology by driving faster activation<sup>2</sup>.



## Pioneers in Microwave SPPS

The new Liberty Lite 2.0 builds on CEM's pioneering legacy in microwave peptide synthesis<sup>4-5</sup>. 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.



<sup>1</sup> US10,858,390; EP3290430B1; JP6677687B2

<sup>2</sup> CEM App Note: AP0124

<sup>3</sup> US7393920; US7582728; US8058393; JP4773695

<sup>4</sup> J. Pept. Sci. 2007; 13: 143

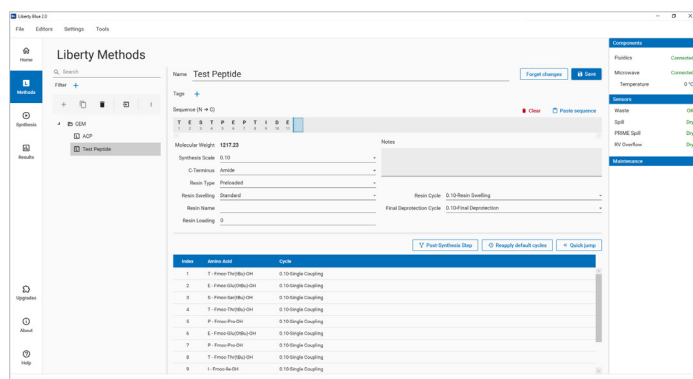
<sup>5</sup> Org. Lett. 2014; 16: 940



# Versatility and Performance

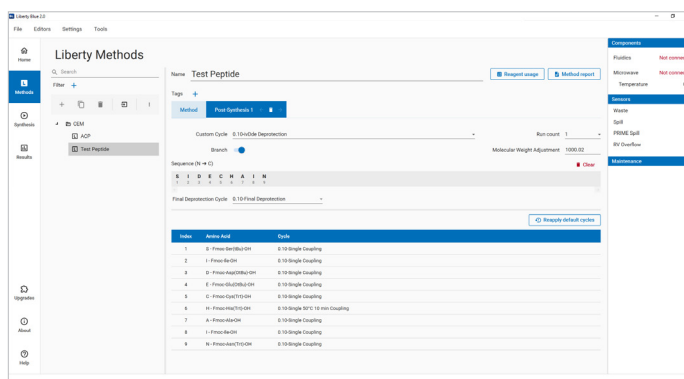
The Liberty Lite 2.0 software makes synthesizing peptides easy. It allows for easy and flexible programming of virtually any type of peptide. It also includes a full suite of calculators for preparing runs and the ability to pause, edit or monitor at any step.

## Easy and Flexible Sequence Programming



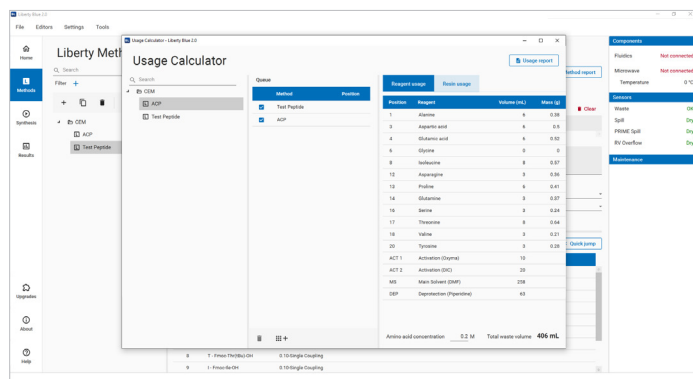
The method editor allows full customization of reaction parameters. Create, edit and store methods to streamline the run process.

## Program Post-Synthesis Modification



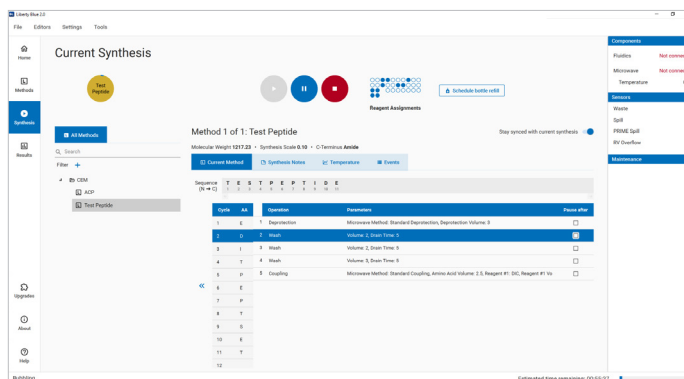
Versatile options for post-synthetic steps like branching, cyclization, orthogonal deprotection, labeling, and more. Empower your chemistry with flexible options.

## 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.

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



We Simplify Science

[cem.com](http://cem.com)



United States Headquarters: +1 (704) 821-7015 | [info@cem.com](mailto:info@cem.com)  
For distributors and subsidiaries in other regions, visit [cem.com/contact](http://cem.com/contact)