

## CEM Introduces Next Generation Microwave Synthesizer Discover<sup>®</sup> 2.0



- New iWave<sup>®</sup> temperature control system
- Larger 100 mL reaction vessel
- Completely new software system with built-in video monitoring

**(Matthews, North Carolina) June 17, 2020** – CEM Corporation is proud to introduce the new Discover<sup>®</sup> 2.0 microwave synthesizer. The Discover 2.0 is a significant update to CEM's existing Discover product line that is used in thousands of synthetic chemistry laboratories worldwide. Major new features of the system include a new temperature control system, the ability to run larger scale reactions, and a completely new software control system with built-in video monitoring.

The iWave<sup>®</sup> temperature control system used on the Discover 2.0 is a major breakthrough. It is based on a unique infrared (IR) sensor that sees through glass and Teflon<sup>®</sup> vessels. This allows for direct monitoring of the reaction solution (instead of the vessel walls) without the use of expensive and cumbersome internal probes. The more accurate temperature measurement of the iWave system provides better reaction control, the ability to use Teflon-lined vessels, and improved reproducibility for publications.

The Discover 2.0 also features a new, larger 100 mL glass reaction vessel, not previously available. This is the largest reaction vessel available for a single-mode microwave synthesizer and can be used with a simple snap-on cap, similar to the 10 and 35 mL vessels also standard to the system. All vessels used on the Discover 2.0 can be visually monitored with a built-in camera on a 10.1" touchscreen. Additionally, the systems Activent<sup>®</sup> pressure management incorporates automatic venting to control over-pressurization during any run.

A complete line of accessories is available for use with the Discover 2.0. These include auto-samplers for running up to 48 reactions, a gaseous reagent system, a sub-ambient temperature system, a continuous flow capability, and liquid handling for peptide synthesis. This makes the Discover 2.0 platform not only the most advanced system on the market, but also the most flexible, with its ability to be adapted to meet specific needs.

Microwave synthesis continues to provide unique benefits for synthetic chemistry in terms of speed, reaction efficiency, and promotion of green chemistry principles. These arise from the unique ability of microwaves to directly heat polar/ionic species in a reaction. The selective heating capability of microwave irradiation may also further enhance certain reactions, particularly in nanotechnology and materials science applications.

### About CEM

CEM Corporation, a private company based in Matthews, North Carolina, is a leading provider of laboratory instrumentation. The company has subsidiaries in the United Kingdom, Germany, Italy, France, and Japan, as well as a global network of distributors. CEM designs and manufactures systems for life sciences, analytical laboratories and processing plants worldwide. The company's products are used in many industries including pharmaceutical, biotech, chemical and food processing, as well as academic research.

### For more information, contact CEM Corporation:

Michael Karney  
Life Science Product Manager  
michael.karney@cem.com  
(704) 821-7015 ext. 1370