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FOR IMMEDIATE RELEASE

CARBO ANALYTICS AWARDED DEPARTMENT OF ENERGY GRANT FOR MEASURING FERMENTABLE SUGAR CONTENT IN BIOFUEL RAW MATERIALS

A New Method to Assess Biofuel Raw Material Value

FORT COLLINS, CO, July 10, 2013 – Carbo Analytics (<http://www.carboanalytics.com>), developers of sugar analysis systems, today announced that it has been awarded a Department of Energy (DoE) grant for the development of a biofuels sugar analysis system.

Selected from over 750 applicants, Carbo Analytics was awarded a \$150,000 Small Business Innovation Research (SBIR) grant for FY 2013. Their application “*Simple and Rapid Determination of Total Accessible C5 and C6 Content of Biomass Samples*” was one of 79 that were selected to receive this grant. Carbo Analytics has partnered with CEM Corporation, the worldwide leader in microwave digestion systems, to prepare biomass samples. This combined solution will give biofuel operators increased visibility into feedstock quality.

Fermentable sugar content of a given material is directly related to the total amount of biofuel that can be produced. Now, a simple and fast method for sugar measurement allows raw material value to be readily assessed. It also allows biofuel operators to flag potential feedstock problems and facilitate suppliers in developing and supplying the highest value products.

"We are excited to be partnering with Carbo Analytics," said Michael J. Collins, President and CEO of CEM Corporation. "The powerful combination of their sugar analysis system and our microwave digester makes for a unique capability that no other technology can currently match."

Renewable energy from bioethanol involves pretreatment of biomass, enzymatic hydrolysis, fermentation, and distillation. Biomass contains the C6 sugars (e.g. glucose, fructose and mannose), primarily from cellulose, and C5 sugars (e.g. xylose, and arabinose) from the hemicellulose part of the plant material. Fast measurement of these sugars is the key indicator of feedstock value and the potential production of a biofuel plant.

“We are honored by this grant award and look forward to working with CEM,” said Thomas Reilly, Ph.D., Chief Technical Officer of Carbo Analytics. “These funds enable us to get the joint solution in the hands of biofuel operators even sooner. CEM is a world-class company with visionary products and a stellar product development and customer support team. Coupling the technologies opens the door for the creation of valued products that will change the game for the assessment of raw materials in not only the biofuels industry, but also in brewing and foods and beverage industries where sugars are also fundamental ingredients.”

About CEM

CEM Corporation is the leading global company specializing in scientific solutions for critical laboratory applications. CEM designs and manufactures systems for bioscience applications, life sciences, analytical laboratories and processing plants worldwide. For further information please visit www.cem.com, or call (704) 821-7015.

About Carbo Analytics

Carbo Analytics develops systems that give accurate sugar analysis, simply and quickly, for the biofuel, brewing & distilling, and food processing industries. Their patented microfluidic microchip technology, referred to as Lab-on-a-Chip, puts the functionality of HPLC pumps, valves, injection loops, detectors, and columns onto a simple replaceable microchip to separate and individually measure sugars such as monosaccharides (glucose, fructose and galactose) and disaccharides (sucrose, lactose and maltose). The technology combines Capillary Electrophoresis (CE) to separate components and Pulsed Amperometric Detection (PAD) to measure them. For more information, please visit www.carboanalytics.com, or call (970) 492-4417.

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