CoalPro II™: Fast and Accurate Energy Grading of Coal, Kerogen and Petroleum Source Rock From CRAIC Technologies

The CoalPro II™ from CRAIC Technologies is used to optically determine the thermal maturity and energy content of coal, kerogens and petroleum source rock rapidly and accurately.

SAN DIMAS, CA – January 3, 2011– Coal, kerogens and petroleum source rock are vital in our search for sources of energy. The CoalPro II™ is the newest system from CRAIC Technologies for the optical analysis of vitrinite and other macerals commonly found in coal, kerogen and source rock. The CoalPro II™ is designed to determine the energy grade of these potential power sources rapidly and accurately. It is used ensure that the materials used in energy generation are optimum, consistent and reliable.

One of the most important ways of grading the energy content of coal and petroleum source rock is to measure the optical reflectance of microscopic amounts of vitrinite. Vitrinite is a maceral and is comprised of various polymers, cellulose and lignin. Measuring the amount of light reflected by vitrinite macerals is a key test to determine the thermal maturity and therefore the energy content of coal, kerogen and petroleum source rock. It is also a used to test the suitibility of coal blends for steel production. The procedure has been standardized by a number of international bodies including both ISO and ASTM. The procedures require the use of a microscope photometer such as the CoalPro II™: a device designed to measure the intensity of light reflected from a microscopic sampling area. The process is simple: the CoalPro II™ measures the amount of light reflected from samples from the coal blend at hundreds of points after which a statistical analysis is done by it's software. The results of the statistical analysis are used to determine the amount of vitrinite in the sample, the sample's thermal maturity and therefore its energy content. As hundreds of measurements need to be done on each sample, this used to be a very time consuming process. Now the CoalPro II™ can economically automate this process and dramatically improve a laboratories throughput and accuracy.

The CoalPro II™ can also do more than just measure vitrinite reflectance of coal. It can also be used to measure the reflectance of other macerals and work with such materials as kerogen and petroleum source rock. The CoalPro II™ is even sensitive enough to measure the fluorescence from these materials. Most importantly, the CoalPro II™ gives the user the ability to collect full color images. These additional capabilities give great flexibility in testing and a much higher level of discrimination than the measurement of just one maceral of coal.

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For more information about the CoalPro II™ System and optical analysis of coal, kerogen and petroleum source rock, please visit www.microspectra.com.

About CRAIC Technologies

CRAIC Technologies, Inc. is a global technology leader focused on developing technology and methodologies for UV-visible-NIR microscopy and microspectroscopy. CRAIC Technologies creates innovative solutions, along with the very best in customer support, by listening to our customers and implementing developments that integrate operational excellence and technologic expertise. CRAIC Technologies provides solutions for customers in the forensic sciences, biology, health sciences, semiconductor, geology, nanotechnology and materials science markets whose applications demand accuracy, precision, speed and the best in expert customer support.

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