



FOR IMMEDIATE RELEASE

Rapid DNA Crystal Identification and Qualification by Ultraviolet Microspectroscopy

SAN DIMAS, CA – January 1, 2009 – Study of the structure of DNA is commonly done with X-ray crystallography. This technique requires the growth of DNA crystals that are stable and free from protein contamination. Using normal microscopy techniques, it is difficult to identify DNA crystals much less determine if they are viable. However, DNA readily absorbs light at 260 nm. Ultraviolet microspectroscopy can be used to rapidly and accurately qualify the crystalline DNA.

UV microspectrophotometers, such as the QDI 2010™ from CRAIC Technologies, Inc., are able to rapidly differentiate DNA from salt and even protein crystals by absorbance microspectroscopy. More importantly, they can also take the next step to qualify the crystal once it has been located and identified. The procedure is simple: an absorbance spectrum is acquired of a microscopic crystal. If it is salt or protein, it will not absorb light at 260 nm. However, the nucleic acids do exhibit a strong absorbance peak near that wavelength. From the spectra, the concentration of the DNA in the crystal can be determined or even if the crystal is contaminated by protein, which absorbs at 280 nm. Due to the inherent flexibility of microspectrophotometers, the crystals may be both imaged and microspectra™ acquired of crystals as small as a micron. Able to operate in the visible and NIR regions, in addition to the ultraviolet, these systems can do much more than just locating crystals. The ability to use microspectra™ to rigorously qualify the crystal can save valuable time by only selecting viable crystals for the next step of a growth procedure.

For more information about the QDI 2010™ Microspectrophotometer and DNA crystal analysis by UV microspectroscopy, please visit www.microspectra.com.

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.

Contact information:



CRAIC Technologies, Inc.
www.microspectra.com
sales@microspectra.com
+1-310-573-8180