

Characterization Carbon Based Ceramics For Batteries

New ceramic materials play an important role when higher temperature stability or performance in batteries is required. Researchers from Darmstadt (Germany) are investigating ceramics based on carbon materials. The behavior of the material is strongly influenced by the phase and crystal structure of the carbon materials which can be probed by Raman spectroscopy. Specifically, the researchers are using UV Raman spectroscopy (excitation at 256.7nm) as it leads to stronger excitation of signals from some carbon structures. They use a high performance, multi-stage spectrograph as it can provide high resolution and filter capabilities with high stray light rejection at this wavelength (the range 0-1700 wavenumber is within a few nm of the excitation wavelength).

Featured Paper/Publication: [UV Raman spectroscopy of segregated carbon in silicon oxycarbides](#),
Journal of the Ceramic Society of Japan, 2016

Reference Lab: TU Darmstadt, Germany

Featured Product: [Trivista](#)