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Measurement of Raman spectra for various real surfaces by using a 248 nm mobile Raman spectrometer

Young Jin Koh, Young Su Jeong, Jae Hwan Lee, Juno Lee and Yeon Chul Ha

Agency for Defense Development, South Korea

Raman scattering occurs when light interacts with a molecule. Raman signals and their intensities are dependent on the size, shape, and bond strength of the molecule creating, thus, a distinct spectral signature for chemicals. A Raman Agent Monitoring System (RAMS) is a technique based on Raman scattering to provide stand-off detection and is made using an excimer laser operating at 248 nm. The RAMS identify toxic chemicals on the ground surfaces in moving. In this research, we measured and analyzed Raman spectra for various real surfaces in the Korean Peninsula with a RAMS. There are no significant characteristics in Raman signals of these surfaces. These results shows that RAMS can detect on ground surfaces in moving and in real time.

Biography

Young Jin Koh has completed her graduation from Department of Chemistry, Duksung Women's University and Master's degree from Department of Analytical Chemistry, Seoul National University in South Korea. Presently, she is a Researcher at Agency for Defense Development in South Korea.

yj04@add.re.kr

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