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Sommario/riassunto	This Special Issue of "Applications of SERS" for Nanomaterials is a collection of articles which is representative of much of the current research being undertaken in the field of Surface-Enhanced Raman Scattering (SERS) spectroscopy. SERS is a fascinating, multidisciplinary field of scientific study which combines elements from chemistry, physics, material science, and engineering. Essentially, SERS is a molecular spectroscopy technique by which a measurable Raman signal for molecules on metal and semiconductor surfaces is generated through the interaction of laser light, absorbed molecules, and structured nanomaterial surfaces. This Special Issue contains an article regarding the fabrication of metal nanostructured Ag-Cu chips for SERS chemical analysis and the electromagnetic properties of Ag, Au, and Al nano-tips for use in the SERS imaging technique for tip-enhanced Raman Scattering (TERS). In another article, SERS spectra were simulated using density Functional Theory (DFT/TD-DFT) for the N3 dye molecule on a TiO2 nanocluster, which can be compared to experimental SERS spectra found in studies of Dye-Sensitized Solar Cells (DSSCs). In two other articles, the SERS photoinduced charge-transfer mechanism was studied experimentally in wide-bandgap semiconductors regarding molecules on ZrO2 and a composite system with molecules that linked Au nanorods and a CuO2 shell. An example

of the use of SERS in solid-state physics is shown in an article which examined the effect of oxygen vacancy defects in MO3 on the SERS mechanism. Finally, this Special Issue contains two noteworthy examples of SERS applications for biochemical and chemical analysis. One paper addresses the detection of the COVID-19 coronavirus SARS-CoV-2 using SERS, and the other examines a SERS assay of the notorious herbicide glyphosate. In these papers, nanomaterials all served as the enhancing substrate, while some acted as the physical-chemical system which was being investigated.