Message from the Guest Editor

Dear Colleagues,

Luminescence in inorganic materials arises from excitation from an external energy source and from biochemical and chemical changes or reactions. This Special Issue covers theoretical and experimental aspects of the luminescence phenomena in insulators, semiconductors, disordered, and amorphous materials. Luminescent materials have wide applications: Solid-state lighting, detectors, imaging analysis, display devices, such as field emission, plasma, and electroluminescent, biomarkers, medical diagnostics and photodynamic therapy, amplifiers, lasers, security labelling, and energy conversion. Luminescent centers, energy transfer and migration, excited state dynamics, collective phenomena, and spectroscopic methods and analyses are topic areas. The challenge to develop new compounds along with novel synthesis methods to form nano- to single-crystal compositions and methods to characterize the luminescence phenomena are included. Progress on phosphors, scintillators, up-conversion materials, sensor, and imaging materials are covered.