

In project „Investigation of laser induced broadband white emission in undoped silicate, perovskite and garnet nanocrystals” will be investigated influence structure and morphology of synthesized compounds on the broadband white emission properties. The nanocrystals will be synthesized by sol-gel method. The broadband white emission will be induced by focused beam of infrared laser diode in vacuum . The experiments: influence of power excitation and pressure on the emission intensity, kinetic of luminescence, quantum yield and photoconductivity will be performed.

The objective of this project is propose a mechanism of Anti-Stokes broadband white emission in yttrium silicate, perovskite and garnet does not contain the energy level in visible range.