

Popular Science Abstract

Nowadays, phosphors are ubiquitous in our daily lives from the lighting industry to remote temperature sensors and biological markers. Therefore, the possibility of producing low-cost, biocompatible, environmentally friendly phosphors from biomass is particularly important from an economic and environmental perspective. The goal of this project is to develop a method for producing high-intensity carbon luminescent dots from lignin. The proposed solution will enable the development of efficient and low-cost luminophores with controlled emission properties. The application potential of the produced materials will be verified for their use in the production of remote temperature and pressure sensors.