

Carbon-based magnetic composites to improve the mechanical properties of materials
Composites with carbon-based nanostructures are promising materials for use in various
fields, from automotive to environmental applications.

The subject of the PhD project is the synthesis of magnetic composites containing carbon-based particles as a material that can exhibit high mechanical strength, investigating the relationship between the composition and content of carbon-based additives and the physicochemical properties. The characteristics that are considered variables are the shape and size of certain carbon-based nanoparticles. The carbon-based fillers are used as reinforcement in the polymer matrix, where the surface coating of the nanofiller is chemically performed to study the dispersion of the nanoparticles and a further influence on the mechanical properties.

Contact:

**Prof. Michal Giersig, Department of Theory of Continuous Media and Nanostructures,
Room 420; Phone: +48 22 826 12 81 ext. 410, e-mail: mgiersig@ippt.pan.pl**
