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Novel Nanocomposites for Solid Phase Microextraction of Trace Species from Environmental Samples

Mustafa Soylak

Department of Chemistry, Faculty of Sciences, Erciyes University, Kayseri, Turkey
Technology Research and Application Center (ERUTAUM), Erciyes University, Kayseri, Turkey
Turkish Academy of Sciences (TUBA), Cankaya, Ankara, Turkey

Abstract

The microextraction of organic, inorganic species and nanoparticles from environmental samples has important place for the preconcentration and separation of them prior to their instrumental detection. Solid phase microextraction is an important technique at separation-preconcentration studies. The preparation and characterization of novel nanosized composites including carbon nanotubes, modified carbon nanotubes, nanocomposites, titanium dioxide nanoparticles and magnetic nanoparticles (MNPs), nanoflowers etc. for solid phase microextraction, which has resistant for acid and bases; high surface area, high adsorption capacity, useable many times without any losses its adsorption properties are very popular recent studies in analytical chemistry.

The fabrication, characterization and usage of novel nanosized materials for solid phase microextraction of organic, inorganic and nanoparticle species for their some industrial applications have been discussed.

Biography

Prof. Mustafa Soylak is working on Environmental Analytical Chemistry, Nanotechnology, Nanomaterials, Nanocomposites, Separation/ Preconcentration Techniques including Solid Phase Extraction, Coprecipitation, Cloud point extraction, membrane filtration, speciation and microextraction of trace organic and inorganic species. He has over 660 papers, his H-index is 103. He is now Professor at Erciyes University, Faculty of Sciences, Department of Chemistry, Kayseri-Turkey. He has Ilim Yayma Award (2021), TUBITAK Science Award (2020) and TUBITAK Encouragement Award (2001) in Basic Sciences. He is a member of Turkish Academy of Sciences (TUBA).

E-mail: soylak@erciyes.edu.tr