

Removal of ions of harmful metals from water with help of original composite sorbent

Dusan Berek, Ivan Novák, Polymer Institute SAS, Bratislava, Slovakia; David Hunkeler, aquaTECH, Geneva, Switzerland

A novel kind of efficient multi-purpose composite materials contains nano-particles of active substances deposited on the external surface of microporous carbon fibers. These were prepared via a controlled carbonization of cellulose. Nanoparticles of ferric hydroxide deposited on the carbon fibers serve as an example. The resulting composite efficiently removes from drinking water ions of several harmful metals such as arsenic, lead, chromium, nickel, antimony and cadmium.