# CARBON MATERIALS FOR ENVIRONMENTAL APPLICATIONS

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**Abstract**

Energy and environment issues have received increasing attention in recent years because of their strategic role in our science and society. In this respect, materials science seems to provide unique opportunities for addressing some of these challenges by the advancement of new materials for the environment. Common materials towards environmental applications include layered solids (clays or LDHs), porous networks (zeolites, MCM-41, MOFs), iron/iron oxide nanoparticles and functional nanocarbons. Especially functional nanocarbons appear quite attractive in environment materials research because of high popularity, light density, cost-effectiveness, easy preparation, low toxicity and a broad spectrum of applications ranging from energy and desalination to pollution and UV-protection. In this talk we present new carbon materials developed in our group with applications covering the following topics and scopes: i) heavy metal uptake, ii) $CO_2$ uptake, iii) $H_2$ storage, and iv) UV protection.

**Keywords:** carbon materials, heavy metal uptake, CO2 removal, H2 storage, UV protection

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