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Résumé :

Activated carbons were prepared by the pyrolysis of artichoke leaves impregnated with phosphoric acid at 500 °C for different impregnation ratios: 100, 200, 300 wt.%. Materials were characterized for their surface chemistry by elemental analysis, “Boehm titrations”, point of zero charge measurements, infrared spectroscopy, as well as for their porous and morphological structure by Scanning Electron Microscopy and nitrogen adsorption at 77 K. The impregnation ratio was found to govern the porous structure of the prepared activated carbons. Low impregnation ratios (~ 100 wt.%) led to essentially microporous and acidic activated carbons whereas high impregnation ratios (> 100 wt.%) gave essentially microporous–mesoporous carbons with specific surface areas as high as 2038 m²·g⁻¹, pore volume as large as 2.47 cm³·g⁻¹, and a slightly acidic surface. The prepared activated carbons were studied for their ...