
aphysico _chemical and applicative study on activated carbon from agro_wates

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Activated carbon is a remarkable, highly adsorbing material with a large number of applications in the remediation of contaminated groundwater [1]. Its properties and uses have been known for centuries, but modern applications involving water and wastewater treatment have expanded the understanding of its nature and potential. Activated carbon is an effective adsorbent primarily due to its extensive porosity and very large available surface area. The chemical nature of the carbon's adsorptive surface is also important but is usually considered much less significant [2]. The specific properties of an activated carbon are the result of both the raw material used to produce it and the activation process, which boosts its adsorbent qualities. Adsorbents are generally seen as materials of high surface area with developed highly porous structure [3]. Traditional adsorbents (e.g. activated carbons, silica gels, clays and aluminous) generally exhibit a high degree of surface and textural heterogeneity, whereas the newer adsorbents (e.g. zeolites, carbon molecular sieves and modified silica) are more uniform. Most adsorbents of technological importance are highly 'active'. The required large surface is generated either by the production of very small particles or, more usually by the formation of a pore structure.