

CARBON NANOPOWDERS IN TECHNOLOGY DRUG FORM

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Carbon nanopowders can be a perfect delivery vehicles for macromolecular biotechnology products due to their reactive surface and exceptional biocompatibility [1]. These nanomaterials may transport the active substances directly to the target place in the body affect its distribution or prolong its duration of action.

The small size of nanoparticles allows to pass through the smallest blood vessels, thereby improving the effectiveness of therapy. Moreover, for the same nanopowders have been documented anti-inflammatory properties. Thanks to its excellent biological properties, which include high biocompatibility and antioxidant properties, carbon nanopowders are the subject of research in many centers around the world. Thanks to the high reactivity of carbon nanopowders, associated with the presence of dangling bonds on the surface, there is a broad spectrum of possibilities of connecting a number of functional groups that are adequate in terms of further treatment processes, directed to obtain a final functionalized product [2]. Recent work on carbon nanopowders are now devoted to the possibilities of their use in chemotherapy, as anticancer delivery vehicles. As antioxidants it can be used to treat other diseases, resulting as the effect of free radicals, such as Alzheimer's disease, Parkinson's, atherosclerosis, diabetes, bronchial asthma or rheumatoid arthritis [3]. This subject is still in early stages of research and needs further study.

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References

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