

عنوان مقاله:

The attachment of Desmopressin peptide to functionalized Multi-walled Carbon Nanotubes

محل انتشار:

پنجمین کنفرانس بین المللی پژوهش کاربردی در شیمی و مهندسی شیمی با تاکید بر فناوری های بومی ایران (سال: 1397)

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خلاصه مقاله:

Over the last twenty years, carbon nanotubes (CNTs) have received considerable attention from many researchers due to their interesting properties and wide applications. In addition to, their outstanding mechanical characteristics, CNTs exhibit excellent electrical and thermal properties. The chemical functionalization of raw multi walled carbon nanotubes (MWCNTs) were investigated by acidic mixture. Carboxylic groups were used at first as reaction precursors in the attachment of Desmopressin peptide to functionalized MWCNTs. Surface functionalization of MWCNTs via chemical modification of carboxyl groups by Desmopressin peptide, using of reagents icyclohexylcarbodiimide (DCC) and oxalyl chloride were performed. Successfully covalently attachment of Desmopressin peptide to functionalized MWCNTs were confirmed by Fourier Transform Infrared Spectroscopy (FT-IR), Raman scattering, Field (Emission) Scanning Electron Microscopy (FESEM).

کلمات کلیدی:

Oxidation Process, Multi-Walled Carbon Nanotubes, Functionalization

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