

عنوان مقاله:

Molecular Modelling of Gelatin Bundles for Atomistic Investigations Suggesting Two Stable Conformations

محل انتشار:

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خلاصه مقاله:

In nanobiotechnology, gelatin gels have broad application prospects because of their unique biocompatibility. In this study, we performed molecular docking analysis to predict the likely stable structural assemblies among gelatin strands. Using three docked synthetic gelatin strands, the conformations of these bundles were compared and all showed two conserved modes: triangular and straight-linear. The top-ranked clusters showed stable bundles, with triangular structures appearing in groups of three and five gelatin strands while linear bundles formed with four-strand arrangements. The findings offer information on how gelatin behaves structurally and its relevance in creating biomaterial products for nanobiotechnology applications, like drug delivery systems and tissue engineering projects.

کلمات کلیدی:

Molecular dockings, Gelatin bundles, Nanobiotechnology, Gelatin gelation

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