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*Biomedical
 Applications, Emerging Trends
 and Future Prospects:
 Two-Dimension Nanomaterials*

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Abstract:

2-dimensional (2D) nanomaterials are ultrathin and chemically functional nanomaterials with high anisotropy and anisotropy. Many studies on 2D nanomaterials are only beginning to investigate the unique properties of these materials, and there are just a few publications on how 2D nanomaterials may be used in the medical field. 2D nanomaterials, however, have presented interesting new challenges concerning their interactions with biological moieties as a result of their fast advancement. Two-dimensional nanoparticles, such as carbon-based two-dimensional materials, silicate clays, transition metal dichalcogenides, and transition metal oxides, offer improved physical, chemical, and biological functioning because of their uniform forms and high surface-to-volume ratios, and with a surface charge 2D nanomaterials in biomedicine: current state-of-the-art uses and recent advances in a developing area. The unique properties of 2D nanoparticles and the biocompatibility framework that has been studied so far are described in detail in this paper. Also, to capture the emerging trend in 2D nanomaterials for biomedical applications and uncover interesting new research areas, we give a comprehensive review of prospective uses for newly discovered 2D nanomaterials.

Keywords:

2D nanomaterials, applications, biomedical, nanoparticles, structures