Many modeling and functionalization technologies are being developed to control the location, distribution, amount, or structure and orientation of biological nanomolecules at the nanomaterial level. Therefore, our level of contact between biological nanomolecules and nanomaterials is of particular importance in countless applications. Covalent and non-covalent modifications are two general methods for coupling biological molecules and CP nanomaterials. Covalent functionalization is a chemical process in which a strong bond or relationship between nanomaterials and biological molecules is formed. In many cases, surface chemical modifications are required to create active groups that can bind to biomolecules. Unlike covalent functionalization, in the non-covalent method, nanomolecules can be removed without destroying the geometric and electronic structure on the surface. Nanomaterials are formed.

**Conclusion:**

The large surface-to-volume ratio in nanostructures and the high potential for signal amplification provide ideal conditions for marking and detecting biological elements in the structure of nanosensors.

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