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Interaction between the boron nitride nanotube and biological molecules¹ CHIH-KAI YANG, Chang Gung University — By calculating the interaction between boron nitride nanotubes (BNNT) and a variety of biological molecules, including amino acids and nitrogenous bases that are part of a nucleotide, using density functional theory, we conclude that there is no bonding or chemical adsorption between the wide band-gap BNNT and the biological molecules considered. This weak interaction suggests that BNNTs may be used as a safe nanoscale channel for transporting biological molecules.

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