

Quantum Biology

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The present paper attempts to provide an introduction to the new and fascinating science of quantum biology. One of the major challenges in this field is the ambiguity of the concept of quantum biology which simply means the application of quantum mechanics to biological issues or critical processes. Quantum biology is essentially a new interdisciplinary science of quantum mechanics, chemistry, physics, biochemistry and biology. Quantum biology demonstrates biological phenomena that explicitly apply quantum mechanics to gain or perform a particular action. They have been observed in the biological world, explaining the existence and effect of these phenomena on important biological processes such as photosynthesis and enzymatic catalysis. It also deals with the role of quantum mechanics in other biological topics such as bird orientation, olfaction, vision, consciousness and the beginning of life. Finally, the Quantum Biology Research Core (QBRC-IBB) hosted at Institute of Biochemistry and Biophysics (IBB), University of Tehran is mentioned.

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