Nanostructured layers from DNA, DNA:AU, DNA:C60 clusters

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Abstract: The idea is requisite to coat DNA, DNA:Au, DNA:C60 clusters from water solution, which can be magnetic and electrical active in biosensor systems and to detect their functional properties by microwave techniques (Melkov, G.A., Egorov, Y.V., Ivanyuta, A.N., Malyshev, V.Y., Zeng, H.K., Wu, K.H., Juang, J.Y., 2000. J. Supercond. 13 (1), 95). Our research has been focused on the application of I-V characteristics and surface microwave resonator methods to recognise and predict these molecular interactions based on primary structure and associated physic-chemical properties. In results we have actually shown that these molecular cluster layers on Si and Al2O3 substrates can conduct, switch electric current and respond on power of microwave (additives Au, C60, determine the conductivity of layers). We also aim to apply these Si and Al2O3 ships for Biochip. © 2006.
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