

عنوان مقاله:

Calculation of Current-Voltage Characteristics for Small DNA Chains

محل انتشار:

پنجمین کنفرانس بین المللی مهندسی برق و کامپیوتر با تاکید بر دانش بومی (سال: 1396)

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نویسندگان:

Alireza Kokabi - *Department of Electrical Engineering, Hamedan University of Technology, Hamedan ۶۵۱۵۵, Iran*

Soheyla Kavoosi - *Department of Electrical Engineering, Hamedan University of Technology, Hamedan ۶۵۱۵۵, Iran*

خلاصه مقاله:

The transport properties in the small chains of the Deoxyribonucleic Acid (DNA) molecules is investigated. DNA molecules that carry the genetic instructions of all known living organisms and many viruses have been widely considered as major nanostructures in the bioelectronic devices. Here, the current-voltage of small nucleotide chains are obtained using the Non-Equilibrium Green's Function method. The considered chains consist of identical nucleotides forming a linear structure. The applied voltage is swiped between 0 to 4 volts to cover both under and above energy gap of the chain

کلمات کلیدی:

DNA Conductivity, NEGF, Transport Properties

لینک ثابت مقاله در پایگاه سیویلیکا:

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