

Charge Transport in Cancer-Related Genes Studied by Tight-Binding Models

Chi-Tin Shih

Dept. of Physics, Tunghai Univ.

The charge transport (CT) properties of DNA are closely related to the damage/repair mechanism of DNA by tight-binding models. CT properties of several cancer-related genes are analyzed. It is found that statistically, changes of CT caused by cancerous mutations of these genes are weaker than the non-cancerous mutations.