

## عنوان مقاله:

Performance Comparison of Bilayer Graphene Nano-ribbon FET with Adatom

## محل انتشار:

سومین کنفرانس ملی و اولین کنفرانس بین المللی پژوهش هایی کاربردی در مهندسی برق، مکانیک و مکترونیک (سال: 1394)

تعداد صفحات اصل مقاله: 6

## نویسندگان:

Zeynab Dousti M - *Department of Electrical Engineering , Science and Research Branch , Islamic Azad University , Qazvin , Iran*

Rahim Faez - *Department of Electrical Engineering , Sharif University Technology , Tehran , Iran*

Ali Shahhoseini - *Department of Electrical and Computer Engineering , Qazvin Islamic Azad University , Iran*

## خلاصه مقاله:

In this paper, armchair bilayer graphene nanoribbon (BGNR) field effect transistor (FET) with adatom is investigated. Simulations are performed using non-equilibrium Green's function formalism. The obtained results show adding carbon atom to nano-structure of bilayer GNR increases the band gap energy but it does not change the off current. The current – voltage characteristic of BGNR FET with adatom is investigated and compared with no adatom case. The results show that adding atom will not change the on to off current ratio. Changing the position of adatom will not change the results.

## کلمات کلیدی:

bilayer graphene nano ribbon, tight-binding approximation, non-equilibrium Green's function, FET, adatom

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/479473>

