

### عنوان مقاله:

Computing the clar number of nanotubes and other fullerenes

### محل انتشار:

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### خلاصه مقاله:

We exhibit a polynomial time algorithm that computes the Clar number of any nanotube. This algorithm can be easily extended to one that computes the Clar number of fullerene whose pentagon-clusters are all of even size. It is known that computing the Clar number of planar graphs is NP-hard. It is not known if computing the Clar number of fullerenes is a tractable problem. We show that the latter problem can be suitably approximated in polynomial time, and we also discuss the existence of fpt-algorithms for this important problem of Cheminformatics.

### کلمات کلیدی:

fullerene, Clar Number, Benzenoids, Integer programming

### لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1784502>

