

NANOCONES: A classification result in chemistry

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Nanococones are carbon networks conceptually situated in between graphite and one-side infinite fullerene nanotubes. It is an infinite structure and next to hexagons it has between 1 and 5 pentagons, so that neither the flat shape of graphite nor the constant diameter tube of the nanotubes can be formed. Recently the attention of the chemical world in nanococones has strongly increased.

The structure of graphite is uniquely determined, but for nanotubes and nanococones an infinite variety of possibilities exist. There already exist fast algorithms to generate fullerene nanotubes that are e.g. used to detect energetically possible nanotubes. In this talk we describe a classification result and a generator for nanococones.

