

On the Clar Number of Benzenoid Graphs

ABSTRACT

A Clar set of a benzenoid graph B is a maximum set of independent alternating hexagons over all perfect matchings of B . The Clar number of B , denoted by $Cl(B)$, is the number of hexagons in a Clar set for B . In this talk, we first discuss some results on the independence number of subcubic trees to study the Clar number of catacondensed benzenoid graphs. We will sketch the proof of the upper bound for the Clar number of catacondensed benzenoid graphs and characterize the graphs that attain this bound.