Eccentric connectivity index of unicyclic graphs with application to cycloalkanes

ABSTRACT

Let G be a simple connected molecular graph. The eccentric connectivity index (G) is defined as (G) = Û ∈V(G)deg ( )ec( ), where deg( ) denotes the degree of vertex v and ec( ) is the largest distance between and any other vertex u of G. In this paper, we construct the general formulas for the eccentric connectivity index of unicyclic graphs with application to cycloalkanes.

Keyword: Cycloalkanes; Eccentric connectivity index; Unicyclic chemical graphs; Unicyclic graphs