Eccentric connectivity index of unicyclic graphs with application to cycloalkanes

ABSTRACT

Let G be a simple connected molecular graph. The eccentric connectivity index ɜ(G) is defined as ɜ(G) = ×ɜ∈V(G)deg (ɜ)ec(ɜ), where deg(ɜ) denotes the degree of vertex v and ec(ɜ) is the largest distance between ɜ 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