

Eccentric connectivity index of certain classes of cycloalkenes

ABSTRACT

Let G be a simple connected molecular graph. The eccentric connectivity index $\chi(G)$ is defined as $\chi(G) = \sum_{v \in V(G)} \deg(v) \text{ec}(v)$, where $\deg(v)$ denotes the degree of vertex v and $\text{ec}(v)$ is the largest distance between v and any other vertex $u \in G$. In this paper, we establish the general formulas for the eccentric connectivity index of molecular graphs of cycloalkenes.

Keyword: Eccentric connectivity index; Molecular graphs; Eccentricity; Cycloalkenes