Abstract

The eccentric connectivity index of a graph is defined as the sum of the products of eccentricity with the degree of vertices over all vertices of the graph, and the modified eccentric connectivity index of a graph is defined as the sum of the products of eccentricity with the total degree of neighbouring vertices over all vertices of the graph. In this study, we find eccentric connectivity index and modified eccentric connectivity index and their respective polynomial versions of corona product of two graphs. Finally, we calculate the eccentric connectivity index and modified eccentric connectivity index of some important classes of chemically interesting molecular graphs by specializing the components of corona product of graphs.

References

2. N. De, S. M. A. Nayeem and A. Pal, Total eccentricity index of the generalized
7. B. Eskender and E. Vumar, Eccentric connectivity index and eccentric distance sum of some graph operations, Transactions on Combinatorics, 2(1)(2013), 103–111.

Index Terms

Computer Science
Applied Mathematics

Keywords

Eccentricity, topological index, eccentric connectivity index, modified eccentric connectivity index, corona product