

HOW TO COMPUTE THE WIENER INDEX OF A GRAPH USING MATLAB

K. THILAKAM¹ & A. SUMATHI²

¹PG and Research, Department of Mathematics, Seethalakshmi Ramaswami College, Tiruchirappalli, Tamil Nadu, India

²Department of Mathematics, Seethalakshmi Ramaswami College, Tiruchirappalli, Tamil Nadu, India

ABSTRACT

The Wiener index $W(G)$ is a distance-based topological invariant much used in the study of the structure-property and the structure-activity relationships of various classes of biochemically interesting compounds introduced by Harold Wiener in 1947. It is defined by the sum of the distances between all (ordered) pairs of vertices of G . In this paper, we give MATLAB Algorithm for finding the Wiener index of the graph (molecular graph)

KEYWORDS: Distance Sum, MATLAB, Sparse Matrix, Wiener Index