

## On a matrix representation of molecular structures

ZOIȚA BERINDE and MĂDĂLINA BERINDE

ABSTRACT. In order to discriminate molecular structures containing multiple bonds and heteroatoms, the paper considers the weighted electronic connectivity matrix (CEP). This matrix is obtained by replacing the classical topological distance by the so called weighted electronic distance (*w.e.d.*). The CEP matrix can be then used for obtaining several topological indices [10].

NORTH UNIVERSITY OF BAI A MARE  
DEPARTMENT OF CHEMISTRY  
VICTORIEI 76, 430122, BAI A MARE,  
ROMANIA  
*E-mail address:* zoita.berinde@yahoo.com

BABEȘ BOLYAI UNIVERSITY OF CLUJ-NAPOCA  
FACULTY OF ECONOMICS  
DEPARTMENT OF STATISTICS - ANALYSIS - FORECAST - MATHEMATICS  
*E-mail address:* madalina.berinde@yahoo.com