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CHELO INDEX FOR GRAPHS

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Abstract: It is exciting to study and establish relationships between the physical properties and the molecular structure of chemicals and there is a scope for defining new topological indices. This paper aims to introduce a new topological index for graphs called Chelo index. The Chelo index of a graph G is the sum of five times order of G and two times the number of geodesics of length 3 minus the number of geodesics between peripheral vertices. We compute Chelo index for some standard graphs and observe the correlation between some physical properties and Chelo index for low alkanes. Also, we establish a formulae for computing the number of