The Minimum Monopoly Distance Energy of a Graph

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Abstract

In a graph $G = (V,E)$, a set $M \subseteq V$ is called a monopoly set of $G$ if every vertex $v \in V - M$ has at least $d(v)/2$ neighbors in $M$. The monopoly size $mo(G)$ of $G$ is the minimum cardinality of a monopoly set among all monopoly sets in $G$. In this paper, the minimum monopoly distance energy $E_{Md}$
of a connected graph $G$

is introduced and minimum monopoly distance energies of some standard graphs are computed. Some properties of the characteristic polynomial of the minimum monopoly distance matrix of $G$

are obtained. Finally, upper and lower bounds for $E_{Md}(G)$

are established.

References

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Index Terms

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Keywords

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