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ON SOMBOR DOMINATING MATRIX AND ITS ENERGY

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Abstract. For a simple graph G, a subset $D \subseteq V(G)$ is a dominating set if $N(D) = V$, where $N(D)$ denote the open neighborhood of the set D. The Sombor index $SO(G)$ of a graph G is the sum of square root of squares of degrees of every end-vertex of an edge $E(G)$ in G. In this paper, these two classical concepts are combined and initiated the study of Sombor-dominating energy of a graph G. We have obtained some upper and lower bounds and finally, we conclude this paper by showing applications of Sombor-dominating energy chemistry.

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