عنوان مقاله:

Steiner Wiener index of graph products

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خلاصه مقاله:

The Wiener index W(G) of a connected graph G is defined as $W(G)=\sum_{u,v\in V(G)}d_G(u,v)$ where $d_G(u,v)$ is the distance between the vertices u and v of G. For $S\subseteq V(G)$, the Steiner distance d(S) of the vertices of S is the minimum size of a connected subgraph of G whose vertex set is S. The k-th Steiner Wiener index $SW_k(G)$ of G is defined as $SW_k(G)=\sum_{\overset{S\subseteq V(G)}{|S|=k}} d(S)$. We establish expressions for the k-th Steiner Wiener index on the join, corona, cluster, lexicographical product, and Cartesian product of graphs.

کلمات کلیدی:

Distance (in graph), Steiner distance (in graph), Steiner Wiener index, product (of graphs)

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