The paired domination multisubdivision number of a nonempty graph $G$, denoted by $msd_{pr}(G)$, is a minimum positive integer $k$ such that there exists an edge which must be subdivided $k$ times to increase the paired domination number of $G$. We study properties of graphs with $msd_{pr}(G) = 4$ and characterize all cacti with circumference 3 and $msd_{pr}(G) = 4$.

**Keywords:** Paired domination; domination subdivision number; domination multisubdivision number; cacti.

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**References**