

## INDEPENDENT BLOCK DOMINATION IN GRAPHS

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### ABSTRACT

For any graph  $G(V, E)$ , a block graph  $B(G)$  is a graph whose vertices are corresponding to the blocks of  $G$  and two vertices in  $B(G)$  are adjacent whenever the corresponding blocks contain a common cut vertex in  $G$ . A dominating set  $I \subseteq V[B(G)]$  is called an independent block dominating set if induced sub graph  $\langle I \rangle$  is independent. The independent block domination number is denoted by  $\gamma_{ib}(G)$  and equals to  $\min |I|$ ,  $I$  is an independent block dominating set of  $B(G)$ . In this paper many bounds on  $\gamma_{ib}(G)$  are established in terms of elements of  $G$ .

**KEYWORDS:** Block Graph, Domination Number, Independent Domination Number, Independent Block Domination Number

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