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Monopolar claw-free graphs

A graph is called *monopolar* if its vertices can be partitioned into an independent set and a disjoint union of cliques. Monopolar graphs, which include all bipartite and split graphs, form an important subclass of the so-called polar graphs. We present a structural characterization of monopolar claw-free graphs which suggests a simple $O(n^3)$ algorithm for their recognition. This contrasts with the NP-completeness of related recognition problems, including those for monopolar graphs in general and for polar claw-free graphs.