

COLOR ENERGY OF A UNITARY CAYLEY GRAPH

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AND

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Abstract

Let G be a vertex colored graph. The minimum number $\chi(G)$ of colors needed for coloring of a graph G is called the *chromatic number*. Recently, Adiga *et al.* [1] have introduced the concept of color energy of a graph $E_c(G)$ and computed the color energy of few families of graphs with $\chi(G)$ colors. In this paper we derive explicit formulas for the color energies of the unitary Cayley graph X_n , the complement of the colored unitary Cayley graph $(X_n)_c$ and some gcd-graphs.

Keywords: coloring of a graph, unitary Cayley graph, gcd-graph, color eigenvalues, color energy.

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