

## COLOR ENERGY OF A UNITARY CAYLEY GRAPH

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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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