# 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 $\overline{\left(X_{n}\right)_{c}}$ and some gcd-graphs.


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