On $C_4$-face $(1,0,0)$-magic Polyominoes

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For a planar graph $G = (V, E)$ embedded in $\mathbb{R}^2$, let $\mathcal{F}(G)$ denote the set of faces of $G$. Then $G$ is called a $C_n$-face $(1,0,0)$-magic graph if there exists a bijection $f : V(G) \to \{1, 2, \ldots, |V(G)|\}$ such that for any $F \in \mathcal{F}(G)$ with $F \cong C_n$, the sum of all the vertex labels along $C_n$ is a constant $\Sigma$. We investigate polyomino graphs which are $C_4$-face $(1,0,0)$-magic.

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