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*On some imaginary triquadratic number fields k with $\text{Cl}_2(k) \simeq (2, 4)$
or $(2, 2, 2)$*

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Abstract: Let d be a square free integer and $L_d := \mathbb{Q}(\zeta_8, \sqrt{d})$. In the present work we determine all the fields L_d such that the 2-class group, $\text{Cl}_2(L_d)$, of L_d is of type $(2, 4)$ or $(2, 2, 2)$.

Keywords: 2-group rank; 2-class group; imaginary triquadratic number fields

AMS Subject Classification: 11R11, 11R16, 11R18, 11R27, 11R29

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