SHARP UPPER BOUNDS ON THE CLAR NUMBER
OF FULLERENE GRAPHS

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Abstract

The Clar number of a fullerene graph with \( n \) vertices is bounded above by \( \lfloor n/6 \rfloor - 2 \) and this bound has been improved to \( \lfloor n/6 \rfloor - 3 \) when \( n \) is congruent to 2 modulo 6. We can construct at least one fullerene graph attaining the upper bounds for every even number of vertices \( n \geq 20 \) except \( n = 22 \) and \( n = 30 \).

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References


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