

## On power integral bases for certain pure number fields

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**Abstract.** Let  $K$  be a pure number field generated by a complex root of a monic irreducible polynomial  $f(x) = x^{12} - m$  with a square free rational integer  $m \neq \mp 1$ . In this paper, we prove that if  $m \equiv 2$  or  $3 \pmod{4}$  and  $m \not\equiv \mp 1 \pmod{9}$ , then the number field  $K$  is monogenic. But if  $m \equiv 1 \pmod{4}$  or  $m \equiv \mp 1 \pmod{9}$ , then the number field  $K$  is not monogenic.

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