Title:	On power basis of a class of algebraic number fields
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Abstract:	Let K=Q(θ) be an algebraic number field with θ in the ring AK of algebraic integers of K and F(x) be the minimal polynomial of θ over the field Q of rational numbers. In 1977, Uchida proved that AK=Z[θ] if and only if F(x) does not belong to M2 for any maximal ideal M of the polynomial ring Z[x] (see [Osaka J. Math.14 (1977) 155–157]). In this paper, we apply the above result to obtain some necessary and sufficient conditions involving the coefficients of F(x) for AK to equal Z[θ] when F(x) is a trinomial of the type xn+ax+b. In the particular case when a=−1, it is deduced that {1,θ,…,θn−1} is an integral basis of K if and only if either (i) p∤b and p2∤(bn−1nn−(n−1)n−1) or (ii) p divides b and p2∤b.
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