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Title:	On prime divisors of the index of an algebraic integer
Authors:	Jakhar, A. (/jspui/browse?type=author&value=Jakhar%2C+A.) Khanduja, S.K. (/jspui/browse?type=author&value=Khanduja%2C+S.K.) Sangwan, N. (/jspui/browse?type=author&value=Sangwan%2C+N.)
Keywords:	Denote Algebraic Integers
Issue Date:	2016
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Citation:	Journal of Number Theory, 166,pp.47-61.
Abstract:	Let AKdenote the ring of algebraic integers of an algebraic number field K=Q(θ)where the algebraic integer θhas minimal polynomial F(x) =xn+axm+bover the field Qof rational numbers with n =mt +u, t ∈N, 0 ≤u ≤m −1. In this paper, we characterize those primes which divide the discriminant of F(x) but do not divide [AK:Z[θ]] when u =0or udivides m; such primes pare important for explicitly determining the decomposition of pAKinto a product of prime ideals of AKin view of the well known Dedekind theorem. As a consequence, we obtain some necessary and sufficient conditions involving only a, b, m, nfor AKto be equal to Z[θ]
URI:	https://www.sciencedirect.com/science/article/pii/S0022314X16300282 (https://www.sciencedirect.com/science/article/pii/S0022314X16300282) http://hdl.handle.net/123456789/2497 (http://hdl.handle.net/123456789/2497)
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