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Title:	On factorization of polynomials in henselian valued fields
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:	Factorization of polynomials over henselian valued fields Irreducible polynomials over valued fields Newton polygons of polynomials over valued fields
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Citation:	Communications in Algebra, 46(07), pp. 3205-3221
Abstract:	Guàrdia, Montes and Nart generalized the well-known method of Ore to find complete factorization of polynomials with coefficients in finite extensions of p-adic numbers using Newton polygons of higher order (cf. [Trans. Amer. Math. Soc. 364 (2012), 361–416]). In this paper, we develop the theory of higher order Newton polygons for polynomials with coefficients in henselian valued fields of arbitrary rank and use it to obtain factorization of such polynomials. Our approach is different from the one followed by Guàrdia et al. Some preliminary results needed for proving the main results are also obtained which are of independent interest.
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