Irreducibility of polynomials over discrete valuation domains

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We obtain irreducibility criteria for univariate polynomials with coefficients in a discrete valuation domain (A, v). We use some properties of the Newton index of a polynomial $F(X) = \sum_{i=0}^{d} a_i X^{d-i} \in A[X]$ to deduce conditions on $v(a_i)$ that allow us to find some information on the degree of the factors of F. We apply these results to the irreducibility of bivariate polynomials with coefficients in an algebraically closed field of characteristic zero.