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Bounded and Finite Factorization Properties in Integral Domains.

Let R be an atomic integral domain. We say that R satisfies the *bounded factorization property* or that R is a *BFD* if for each nonzero nonunit $x \in R$, there exists a positive integer n such that x cannot be factored in R as a product of more than n irreducibles (counting repetitions). In addition, we say that R satisfies the *finite factorization property* or that R is an *FFD* if each nonzero nonunit in R can be factored into irreducibles in only finitely many ways (up to permutation and associates). The bounded and finite factorization properties were introduced by D. D. Anderson, D. F. Anderson, and M. Zafrullah in 1990 and have been systematically investigated since then. We will discuss the bounded and finite factorization properties in some classes of monoid domains and further related classes of integral domains. (Received September 15, 2020)