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Christopher Park Mooney* (christopher.mooney@westminster-mo.edu), Westminster College, 501 Westminster Ave., Fulton, MO 65251. *τ -Complete factorization in commutative rings with zero-divisors.*

We consider extending τ -factorization, first introduced for integral domains by D.D. Anderson and A. Frazier in 2011, to rings with zero-divisors by way of complete factorizations. Instead of looking at factorization into a particular type of irreducible or prime element, we instead study factorizations which cannot be refined any further into any properly longer factorization. We take this notion and extend definitions using generalized factorization techniques. We then study the relationship between rings satisfying various τ -finite factorization properties, which have been studied previously, and τ -complete finite factorization properties. (Received July 03, 2014)