Rings with S-acc on d-annihilators

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Abstract: A commutative ring R is said to satisfy *acc on d-annihilators* if for every sequence $(a_k)_{k\in\mathbb{N}}$ of elements of R the sequence $ann(a_1) \subseteq ann(a_1a_2) \subseteq \cdots$ is stationary. In this talk, we extend the notion of rings with acc on d-annihilators by introducing the concept of rings with S-acc on d-annihilators, where S is a multiplicative set. Let R be a commutative ring and S a multiplicative subset of R. We say that R satisfies S-acc on d-annihilators if for every sequence $(a_k)_{k\in\mathbb{N}}$ of elements of R, the sequence $ann(a_1) \subseteq ann(a_1a_2) \subseteq \cdots$ is S-stationary, that is, there exist a positive integer n and an $s \in S$ such that for each $k \geq n$, $s(ann_R(a_1a_2\cdots a_k)) \subseteq ann_R(a_1a_2\cdots a_n)$. We give equivalent conditions for the power series (re-spectively, polynomial) ring over an Armendariz ring to satisfy S-acc on d-annihilators. We also, study serval properties of rings satisfying S-acc on d-annihilators. The concept of the amalgamated duplication of R along an ideal I, $R \bowtie I$ is studied.

Keywords: acc on d-colones, amalgamated duplication, S-Stationary, S-acc on d-colones.

References

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