عنوان مقاله:

Filtration, asymptotic \sigma-prime divisors and superficial elements

محل انتشار:

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خلاصه مقاله:

Let (A,\mathfrak{M}) be a Noetherian local ring with infinite residue field A/ \mathfrak{M} and I be a \mathfrak{M}-primary ideal of A. Let f = (I_{n})_{n\in \mathbb{N}} be a good filtration on A such that I_{۱} containing I. Let \sigma be a semi-prime operation in the set of ideals of A. Let l\geq ۱ be an integer and (f^{(l)})_{\sigma} = \sigma(I_{n+l}):\sigma(I_{n}) for all large integers n and\rho^{f}_{\sigma}(A)= min \big\{ n\in \mathbb{N} \| \sigma(I_{l})=(f^{(l)})_{\sigma}, for \ all \ l\geq n \big\}. Here we show that, if I contains an \sigma(f)-superficial element, then \sigma(I_{l+۱}):I_{۱}=\sigma(I_{l}) for all l \geq \rho^{f}_{\sigma}(A). We suppose that P is a prime ideal of A and there exists a semi-prime operation \widehat{\sigma}_{P} in the set of ideals of A_{P} such that \widehat{\sigma}_{P}(JA_{P})=\sigma(J)A_{P}, for all ideal J of A. Hence Ass_{A}\big(A / \sigma(I_{l}) \big) \subseteq Ass_{A}\big(A / \sigma(I_{l+۱}) \big), for all l \geq \rho^{f}_{\sigma}(A).

کلمات کلیدی:

Noetherian ring, good filtration, semi-prime operation, prime divisors, superficial elements

لینک ثابت مقاله در پایگاه سیویلیکا: