

1096-VJ-976

Jung Wook Lim* (jwlim@knu.ac.kr), Department of Mathematics, Kyungpook National University, 80 Daehakro, Bukgu, Daegu, 702-701, South Korea. *Noetherian properties on generalized power series rings.*

Let $D \subseteq E$ be an extension of commutative rings with identity, I be a nonzero proper ideal of D , (Γ, \leq) be a strictly totally ordered monoid such that $0 \leq \alpha$ for all $\alpha \in \Gamma$ and $\Gamma^* = \Gamma \setminus \{0\}$. Let $D + \llbracket E^{\Gamma^*, \leq} \rrbracket = \{f \in \llbracket E^{\Gamma, \leq} \rrbracket \mid f(0) \in D\}$ and $D + \llbracket I^{\Gamma^*, \leq} \rrbracket = \{f \in \llbracket D^{\Gamma, \leq} \rrbracket \mid \text{the coefficients of nonconstant terms of } f \text{ belong to } I\}$. In this talk, we give some conditions for the rings $D + \llbracket E^{\Gamma^*, \leq} \rrbracket$ and $D + \llbracket I^{\Gamma^*, \leq} \rrbracket$ to be Noetherian or to satisfy the ascending chain condition on principal ideals. (Received September 11, 2013)