Asensio, M. J.; López Ramos, J. A.; Torrecillas, B.; Van Oystaeyen, F.
Injective dimension of filtered and graded rings. (English) Zbl 1049.16005

Summary: Techniques of graded and filtered rings are used to study the finiteness of the injective dimension of some Noetherian rings $R$ from the finiteness of injective dimensions of rings of the form $R/I$ for some ideal $I$ of $R$. Interesting examples of Gorenstein and Auslander-Gorenstein rings are also given.

MSC:
16E10 Homological dimension in associative algebras
16W50 Graded rings and modules (associative rings and algebras)
16W70 Filtered associative rings; filtrational and graded techniques
16P40 Noetherian rings and modules (associative rings and algebras)

Keywords:
injective dimension; filtered rings; graded rings; Noetherian rings