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Bruce Olberding* (olberdin@nmsu.edu), Department of Mathematical Sciences, Las Cruces, NM 88003-8001. *Embedding dimension, multiplicity and Cohen-Macaulayness of subintegral extensions of local Noetherian domains*. Preliminary report.

We discuss a class of integrally closed local Noetherian domains S which admit subintegral extensions that although in one sense very remote from S (they are analytically ramified), have a number of features, such as multiplicity and embedding dimension, that can be determined in a tractable way from S . Whether the subintegral extensions are Cohen-Macaulay or Gorenstein can also be determined, as can ideal-specific properties involving Hilbert functions, reduction number and analytic spread. Many of the techniques used to study these rings are non-Noetherian in nature. (Received February 16, 2010)