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**Linquan Ma\*** (lquanma@umich.edu), 610 Hidden Valley Club Dr, Apt 216, Ann Arbor, MI 48104. *F-injectivity and Buchsbaum singularities*. Preliminary report.

Let  $(R, m)$  be a local ring of equal characteristic  $p \neq 0$ . We show that when  $H_m^i(R)$  has finite length for all  $i < \dim R$ ,  $R$  is  $F$ -injective if and only if every ideal generated by a system of parameters is Frobenius closed. As a corollary, we answer a question of Takagi that  $F$ -injective singularities with isolated non-Cohen-Macaulay locus are Buchsbaum. We also prove that, in characteristic 0, Du Bois singularities with isolated non-Cohen-Macaulay locus are Buchsbaum in the standard graded case. (Received September 16, 2013)