

Roger Yue Chi Ming
On rings close to regular and p -injectivity

Comment.Math.Univ.Carolin. 47,2 (2006) 203-212.

Abstract: The following results are proved for a ring A : (1) If A is a fully right idempotent ring having a classical left quotient ring Q which is right quasi-duo, then Q is a strongly regular ring; (2) A has a classical left quotient ring Q which is a finite direct sum of division rings iff A is a left TC -ring having a reduced maximal right ideal and satisfying the maximum condition on left annihilators; (3) Let A have the following properties: (a) each maximal left ideal of A is either a two-sided ideal of A or an injective left A -module; (b) for every maximal left ideal M of A which is a two-sided ideal, A/M_A is flat. Then, A is either strongly regular or left self-injective regular with non-zero socle; (4) A is strongly regular iff A is a semi-prime left or right quasi-duo ring such that for every essential left ideal L of A which is a two-sided ideal, A/L_A is flat; (5) A prime ring containing a reduced minimal left ideal must be a division ring; (6) A commutative ring is quasi-Frobenius iff it is a YJ -injective ring with maximum condition on annihilators.

Keywords: strongly regular, p -injective, YJ -injective, biregular, von Neumann regular

AMS Subject Classification: 16D40, 16D50, 16E50, 16N60