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On the commutativity of certain weakly periodic-like rings. Preliminary report.

Suppose R is a ring with center C and with nilpotents N , and suppose J is the Jacobson radical of R . An element x of R is called **potent** if $x^n = x$ for some integer $n > 1$. R is called **weakly periodic-like** if every $x \in R \setminus C$ can be written as a sum of a nilpotent element and a potent element of R . The following commutativity theorem of a certain class of weakly periodic-like rings is proved: If R is a ring of prime characteristic p and with central idempotents, and if $(N \cap J)$ is commutative and every element $x \in R \setminus C$ can be written in the form $x = a + b$, where a is in N and $b^p = b$, then R is commutative. (Received August 14, 2007)