

# Semiprimality and nilpotency of nonassociative rings satisfying $x(yz)=y(zx)$

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In this article we study nonassociative rings satisfying the polynomial identity  $x(yz)=y(zx)$ , which we call "cyclic rings." We prove that every semiprime cyclic ring is associative and commutative and that every cyclic right-nilring is solvable. Moreover, we find sufficient conditions for the nilpotency of cyclic right-nilrings and apply these results to obtain sufficient conditions for the nilpotency of cyclic right-nilalgebras. Copyright © Taylor & Francis Group, LLC.