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RINGS WHOSE IDEALS FORM A CHAIN. E. T. Hill, Cornell College. A well known group theory result states that a finite group is a cyclic  $p$ -group iff the lattice of subgroups is a chain; we examine the corresponding result for rings. This author has previously shown (Proc. Amer. Math. Soc., 25, No. 4 (1970) 811-815) that the ideals of the modular group ring of a cyclic  $p$ -group form a chain. The converse is given in the following: THM. Let  $A$  be an algebra over  $Z$  with unity. If the exponent of the radical is of the proper form and  $\mathcal{P}$  the radical powers form a chain of maximal length, then  $A$  is the modular group ring of a cyclic  $p$ -group.



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