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**Title:** On finite  $p$ -groups with cyclic characteristic series

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Let  $G$  be a finite  $p$ -group having a characteristic cyclic series (c.c.s.) and let  $\Phi$  be its Frattini subgroup. It is shown that the automorphism group of  $G$  is either a  $p$ -group or is the semidirect product of a normal  $p$ -Sylow subgroup of  $G$  by an elementary abelian group of exponent  $p - 1$  and of order  $(p - 1)^r$ , where  $1 \leq r \leq s$  and  $s = |G/\Phi|$ . It is also shown that  $G$  has a c.c.s. containing  $\Phi$ .

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