

Title: On the derived length of Lie solvable group algebras

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Let G be a nilpotent group with cyclic commutator subgroup of order p^n and let F be a field of characteristic p. It is shown here that the Lie derived length of the group algebra FG is at most $\lceil \log_2(p^n + 1) \rceil$. Furthermore, this bound is achived if and only if one of the following conditions is satisfied: (i) p is odd; (ii) p = 2 and $n \le 2$; (iii) p = 2, $n \ge 3$ and the nilpotency class of G is at most n.

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