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NIL IDEALS OF CROSSED PRODUCTS

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Let $K*G$ be a crossed product of the group G over the ring K and let $N(K*G)$ be the upper nil radical of $K*G$. Suppose that K is a prime ring with characteristic $p \geq 0$ and $N(K) = 0$. If $p > 0$ and the subgroup G_{inn} has no p -elements, then we prove that $N(K*G) = 0$. Moreover, if $p = 0$ and G_{inn} has an ascending normal series with locally finite factors over their centers, then again $N(K*G) = 0$. These results we use for the investigation of the analogical problems when K is not a prime ring.

REFERENCES

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