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On the normalizer property for integral group rings. (English) Zbl 0943.16012
Commun. Algebra 27, No. 9, 4217-4223 (1999).

The authors discuss the following property: A finite group G has the normalizer property if a unit u in the integral group ring $\mathbb{Z}G$ normalizes G if and only if there is an element $g \in G$ so that $u \cdot g$ is in the centre of $\mathbb{Z}G$. This question is of importance for the isomorphism problem for integral group rings.

The authors prove that if the intersection of all non-normal subgroups of G is not reduced to the identity, then G has the normalizer property. The class of these groups was discussed by *N. Blackburn* [*J. Algebra* 3, 30-37 (1966; [Zbl 0141.02401](#))] and they are of rather restricted structure. The authors use essentially the above result of Blackburn. M. Hertweck gave examples for groups which do not have the normalizer property.

Reviewer: [A. Zimmermann \(Amiens\)](#)

MSC:

- [16U60](#) Units, groups of units (associative rings and algebras)
- [20C05](#) Group rings of finite groups and their modules (group-theoretic aspects)
- [16S34](#) Group rings
- [20D30](#) Series and lattices of subgroups

Cited in **2** Reviews
Cited in **27** Documents

Keywords:

[finite groups](#); [normalizer property](#); [units](#); [integral group rings](#); [centers](#); [isomorphism problem](#)

Full Text: [DOI](#)

References:

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- [2] DOI: [10.1016/0021-8693\(66\)90018-4](#) · [Zbl 0141.02401](#) · doi:[10.1016/0021-8693\(66\)90018-4](#)
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