

## QUASI-COMPLEMENTED $BE$ -ALGEBRAS

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### Abstract

The concept of O-filters is introduced in commutative  $BE$ -algebras. An equivalent condition is derived for every strong regular filter of a  $BE$ -algebra to become an O-filter. The concept of quasi-complemented  $BE$ -algebras is introduced and also characterized these classes of  $BE$ -algebras in terms of dual annihilators. The concept of strong regular filter is introduced and then quasi-complemented  $BE$ -algebras and strong  $BE$ -algebras are characterized in terms of strong regular filters and O-filters.

**Keywords:** commutative  $BE$ -algebra, O-filter, quasi-complemented  $BE$ -algebra, strong  $BE$ -algebra, strong regular filter.

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