

STONEAN RESIDUATED LATTICES

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By a Stonean residuated lattice I mean a bounded integral residuated lattice-ordered commutative monoid satisfying the equation

$$\neg x \vee \neg\neg x = \top.$$

I will show that stonean residuated lattices are characterized by triples $\langle \mathbf{B}, \mathbf{D}, \varphi \rangle$ where \mathbf{B} is a Boolean algebra, \mathbf{D} is an unbounded residuated lattice and φ is an order reversing homomorphism from \mathbf{B} into the lattice of implicative filters of \mathbf{D} .

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