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# NEUTROSOPHIC 2-ABSORBING PRIMARY IDEALS IN LATTICE STRUCTURES

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## ABSTRACT

This study introduces the concepts of neutrosophic prime ideal, prime neutrosophic ideal, neutrosophic 2-absorbing, 2-absorbing neutrosophic ideal, neutrosophic primary ideal, and primary neutrosophic ideal on a lattice. Then, neutrosophic 2-absorbing primary ideals of a lattice are characterized. The transitions among these concepts and their relationships with the ideals of a lattice are discussed. Finally, these concepts are examined on a lattice formed by the Cartesian product of lattices.

**Keywords** Lattice, neutrosophic, prime, 2-absorbing, primary

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