S-biquasigroups and its properties

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The concept of bi-semigroups and S-bisemigroups are very recent, defined in 2003. Here we define some more special classes which are generalizations of bi-semigroups and biquasi groups. S-biquasi group is defined as a set with two binary operations + and \( \circ \) such that \( S = S_1 \cup S_2 \), \( S_1 \) and \( S_2 \) are proper subsets and \( (S_1, +) \) is S-semigroup and \( (S_2, \circ) \) is just a semigroup. S-normal sub bi-quasi group and S-p-sylow sub bi-quasi groups are defined and some interesting results analogous to classical theorems are obtained on these new algebraic structures.