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## Smarandache Substructures in Groupoid Rings

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### **Abstract**

In this paper we introduce some Smarandache substructures in groupoid rings. Study of groupoid rings itself is totally absent in literature so the study of Smarandache substructures in groupoid rings seems to be new and innovative. The class of groupoid rings is a subclass of non-associative ring and they are different from Lie algebras or Jordan algebras or loop rings. In this paper we introduce a new class of groupoids using  $Z_n$  and using these groupoids construct groupoid rings. We introduce and study S-ideally obedient ring and Lin ring. We prove the groupoid ring  $Z_2G$  when  $G$  is a groupoid in which every  $g \in G$  is such that  $g^2 = 1$  is a Lin ring.

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