INVERTIBLE SUBHYPERGROUP NANO TOPOLOGY INDUCED BY CHEMICAL REACTION

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Abstract: This paper deals with an approximation space and a hypergroup theory. Also we introduce invertible subhypergroup nano topology. Moreover, the notion of a normal and closed subhypergroup gives the characterization of invertible subhypergroup nano topology. Finally, we have shown that copper has same crystalline form but different chemical composition using nano homeomorphic in invertible subhypergroup nano topology.

Keywords and Phrases: Nano topology, Hypergroup, invertible subhypergroup, normal subhypergroup, semihypergroup.

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1. Introduction

Pawlak introduced "rough set theory"[11], a mathematical tool for dealing with vagueness or uncertainity. Since 1982, the theory and applications of rough sets have impressively developed. The algebraic approach to rough sets was studied by some authors, for instance by Bonikowaski[1], Iwinski[6]. Kuroki[7] considered the rough ideal in a semigroup, Kuroki and Wang[8] studied the lower and upper approximations with respect to normal subgroups, Davvaz[5] introduced rough subrings and rough ideals, with respect to an ideal of a ring.

On the other hand, algebraic hyperstructures, particularly hypergroups, were introduced by Marty[10] in 1934. Since then, algebraic hyperstructures have been intensively studied, both from the theoretical point of view and especially for their applications in other fields such as nonEuclidean geometries, graphs and hypergraphs, fuzzy sets, automata, cryptography, artificial intelligence, codes, probabilities,lattices and so on. An interesting book dedicated to the applications of