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Talis A. L., Rabinovich A. L. (Moscow, A.N.Nesmeyanov Institute of Organoelement Compounds of the RAS; Petrozavodsk, Institute of Biology, Karelian Research Centre of the RAS). **Linear substructures as mappings from a four-dimensional diamond-like polytope: an approach for characterization of non-crystallographic symmetry.**

Abstract: The Hopf fibration formalism for the polytope {240} allows constructing a number of its linear substructures. An approach has been developed for their group-theoretical description. The symmetry groups of the complexes of such substructures are isomorphic to subgroups of the permutation group of the polytope's vertices.

Keywords: polytope {240}, linear diamond-like substructures, non-crystallographic symmetry.

