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Flavour Symmetry as a Gauge Invariance RASULKHOZHA S. SHARAFIDDINOV, Institute of Nuclear Physics, Uzbekistan Academy of Sciences, Tashkent, 100214 Ulugbek, Uzbekistan — A classification of leptonic currents with respect to C-operation requires the separation of elementary particles into the two classes of vector C-even and axial-vector C-odd character. Their nature has been created so that to each type of lepton corresponds a kind of neutrino. Such pairs are united in families of a different C-parity. Unlike the neutrino of a vector type, any C-noninvariant Dirac neutrino must have his Majorana neutrino. They constitute the purely neutrino families. We discuss the nature of a corresponding mechanism responsible for the availability in all types of axial-vector particles of a kind of flavour which distinguishes each of them from others by a true charge characterized by a quantum number conserved at the interactions between the C-odd fermion and the field of emission of the corresponding types of gauge bosons. This regularity expresses the unidenticality of truly neutral neutrino and antineutrino, confirming that an internal symmetry of a C-noninvariant particle is described by an axial-vector space. Thereby, a true flavour together with the earlier known lepton flavour predicts the existence of a flavour symmetrical mode of neutrino oscillations as a unity of flavour and gauge symmetry laws.

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