**Title:** Abelian symmetries in the two-Higgs-doublet model with fermions

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**Abstract:** We classify all possible implementations of an Abelian symmetry in the two-Higgs-doublet model with fermions. We identify those symmetries which are consistent with nonvanishing quark masses and a Cabibbo-Kobayashi-Maskawa quark-mixing matrix (CKM), which is not block-diagonal. Our analysis takes us from a plethora of possibilities down to 246 relevant cases, requiring only 34 distinct matrix forms. We show that applying Z(n) with n >= 4 to the scalar sector leads to a continuous U(1) symmetry in the whole Lagrangian. Finally, we address the possibilities of spontaneous CP violation and of natural suppression of the flavor-changing neutral currents. We explain why our work is relevant even for non-Abelian symmetries.

**KeyWords Plus:** Maximal CP Nonconsercation; Quark Mass Matrices; Neutral Currents; Higgs Doublets; Violation; Conservation; Scalars

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