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Analysis of isospin symmetry for fragmentation functions

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We make an analysis of the isospin symmetry for fragmentation functions assuming isospin symmetry in strong interactions. Taking hadron decay contributions into account, we show that the isospin symmetry is held for \Lambda hyperon fragmentation functions. Only tiny violations are allowed for other hadrons due to weak decays. We also present a rough estimate for the magnitudes of such violations. For the polarized case, we show that the recent Belle data on the transverse polarization of \Lambda hyperon can be reproduced if the isospin symmetry is kept in the corresponding polarized fragmentation functions. [Ref: Phys.Lett. B816 (2021) 136217]

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