that the matrix elements of the various θ_K are comparable[19] for all K. Similarly, the Wilson coefficients are all comparable, apart from obvious factors like $\sin\theta_c$, $\cos\theta_c$, etc. that arise from the structure of the weak interaction model and which distinguish one model from another. It is these factors, together with the logarithmic factors in Eq. (10), that we want to invoke for octet enhancement. To get some idea of the importance of these logarithmic terms, let us take $M_W = 60$ GeV, $\mu = 1.0$ GeV and compute the quantities $(\ln \frac{M_W^2}{\mu^2})^{\phi_K}$. The results are set out in Table I for n = 4,6,10 . The relevant ratios for dominance of 8 over 27 interactions are $\theta^+_{LR}/\theta^-_{LL}$ and $\theta^+_{LL}/\theta^-_{LL}$. The observed enhancement is perhaps of order 20 or more in many processes, although for $K \to 3\pi$ decays the $\Delta I = \frac{1}{2}$ rule seems to fare rather badly.[20]

Since a general discussion becomes cumbersome, let us once more consider several illustrative models and then try to extract some general lessons.

Model A:

This is the standard GIM scheme, set out in Eq. (9). There are no right-handed (charged) currents and the number of quark species is n = 4. The enhancement of octet over 27 interactions is only of order 4 or 5, probably not enough to account for the observed enhancement unless we invoke, additionally, extra enhancements[21] in the matrix elements of the octet operator θ^+_{LL}. Such extra effects, which go outside of the spirit of asymptotic freedom, are of course, entirely possible; however, the