

Questions

1. What is the decomposition of $\mathbf{3} \times \mathbf{3}^*$?
2. What is the decomposition of $\mathbf{3} \times \mathbf{3} \times \mathbf{3}$?
3. What quark content can give a color singlet?
4. For three quark baryons with no orbital angular momentum, what are the possible J values?
5. What are the possible flavor irreps.?
6. How is the decuplet made?
7. How is the octet made?
8. Would there be any mass splittings within an SU(3) multiplet if SU(3) were exact?
9. Why do particles get heavier as strangeness increases?
10. Why is the $\Delta^+ = uud$ heavier than the $p = uud$?