Differentiate, distinguish, compare and explain what is the main difference between c3Â and c4 pathway. Comparison and Differences.

Difference between C3 and C4 pathway

1. In c3 pathway, ribulose biphosphate is the first acceptor of CO2. In c4 pathway, phosphoenol pyruvate is the first acceptor of CO2, while ribulose biphosphate is the second acceptor.
2. In c3 pathway, Phosphoglyceric acid is the first product. Oxaloacetic add is the first product in c4 pathway.
3. The plants operate only Calvin cycle in c3 whereas plants operate a dicarboxylic add cycle in addition to Calvin cycle in c4 pathway.
4. In c3 pathway, CO2 compensation point is 25 â□□100 ppm whereas CO2 compensation point is 0 â□□10 ppm in c4.
5. Mesophyll cells perform complete photosynthesis in c3 pathway. Mesophyll cells perform only initial fixation in c4 pathway.