Synthesis of Brevianamide A and B
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1) Name of A? How would you prepare it?
2) Propose a mechanism
4) How would you prepare C?
7) Propose a Mechanism, name the individual steps

1) phthalic anhydride, NEt₃
2) i-BuOCl, NEt₃, then B
3) LiCl, DMF
4) (COCl)₂, DMF, then C
5) NH₃/MeOH
6) m-CPBA
7) LiOH

(+)-Brevianamide A (+)-Brevianamide B
Solution:
1) L-tryptophan methyl ester was prepared by treatment of a solution of L-tryptophan in methanol with thionyl chloride
2) Proline methyl ester was treated with NCS and NEt₃
3) retro 5-exo-trig
4) t-BuOCl
5) [1,2]-shift
6) tautomerization
7) [4+2]-cycloaddition
8) (+)-Brevianamide A