Experimental and calculated Raman wavenumbers (in cm^{-1}) of OF and CF isomers

Exptl	Calc	Assignments, **OF** isomer
1614	1615	Perfluorocyclopentene: ν(C=C)
1586	1592	Pyridines: δ (CHC) + ν(C=C)
1517	1527	Thiazole: ν(C=N), Perfluorocyclopentene: ν(C=C)
1500	1500	Thiazole: ν(C=C), OEt: δ(CH2) + δ(CH3)
1471	1477	Thiazole: ν(C=C), OEt: δ(CH2) + δ(CH3)
1438	1430	Pyridines : ring vibrations, ν(C=C) + ν(C-C)
1293	1280	Perfluorocyclopentene: δ (FCF)
1224	1227	Perfluorocyclopentene Mode
994	980	Pyridines: δ(CCC)

Exptl	Calc	Assignments, **CF** isomer
1616	1615	ν(C=C) + δ(C=N-C)
1479	1488*	Thiazole: ν(C=N) + ν(CN) +ν(C=C)
1459	1476*	Thiazole: ν(C=N) + ν(CN) +ν(C=C)
1439	1428	ν(C=C)Pyridine+ ν(C-C)
1174	1167	ν(C=N) + ν(C-C) + ν(C-F)

ν: stretching vibration, δ: in plane bending vibration

***** These values are related to two different conformers of the CF isomer.