Supplementary Information for:

Conformation-specific spectroscopy of capped, gas-phase Aib oligomers: Tests of the Aib residue as a 3_{10}-helix former

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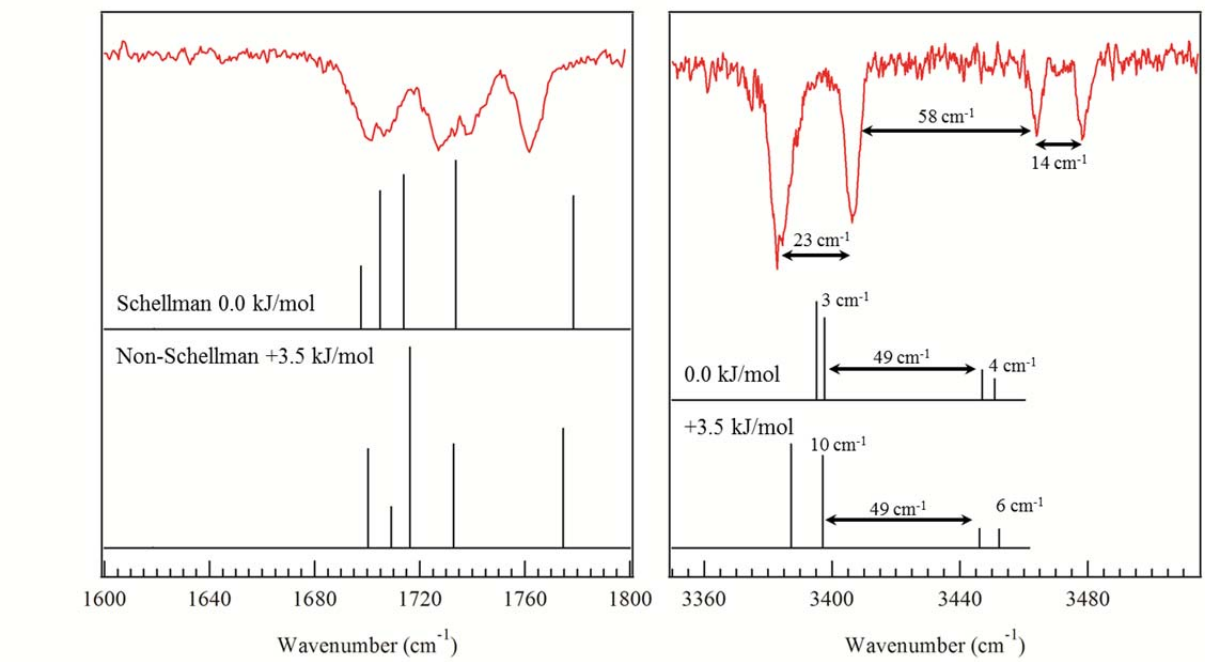

Figure S1: Presented here are the two lowest energy fits for conformer A of Z-$(Aib)_4$-OMe. Both structures adopt F-F-10-10 conformations. The splittings between individual transitions have been given in wavenumbers. The primary structural difference between the two is incorporation of the Schellman Motif[29] in the lower energy structure. Because of the energetic and spectroscopic similarity, we do not make a definitive assignment. However, the +3.5 kJ/mol structure is favored based on slightly better spectroscopic agreement.