

Electronic Supplementary Information

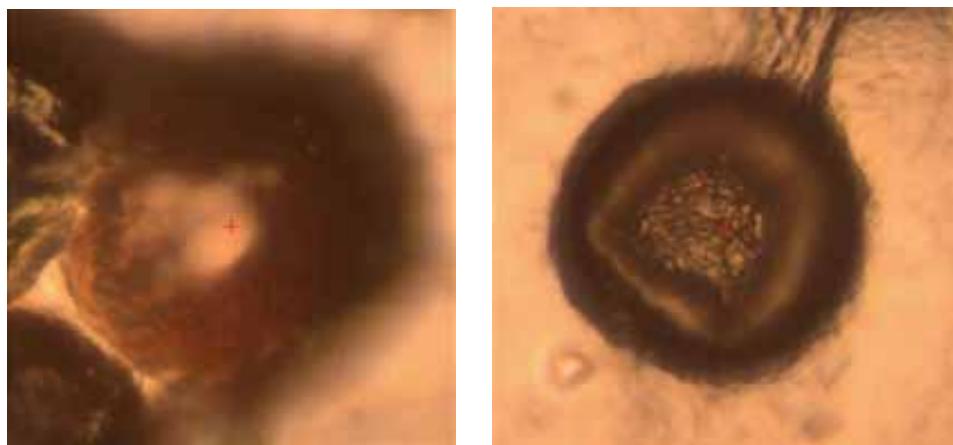


Fig.1S Visual images of cells presented in Fig. 2 (left panel) and 3 (right panel) in the main text focused on the top layer (surface) of the objects (magnification 40x).

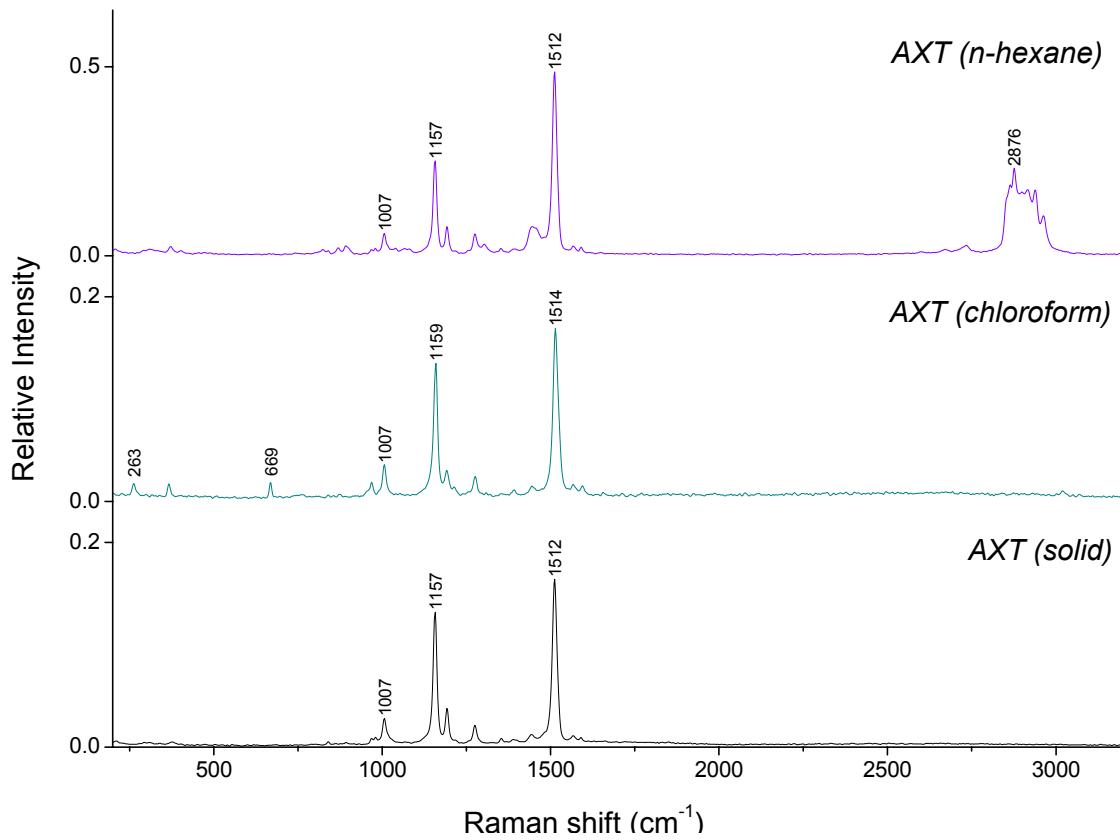


Fig.2S Raman spectra of AXT solid standard, chloroform and *n*-hexane solutions. Solutions were obtained by dissolving 7 or 5 mg of AXT in 100 μl of chloroform (cz. d. a., Lach-Ner, s.r.o., Czech Republic) or 200 μl of *n*-hexane (für spectroskopie, Merck, Germany; yielded the saturated solution), respectively. Measurement parameters: 16 scans, 100 mW for solutions and 64 scans, 150 mW for the solid sample.

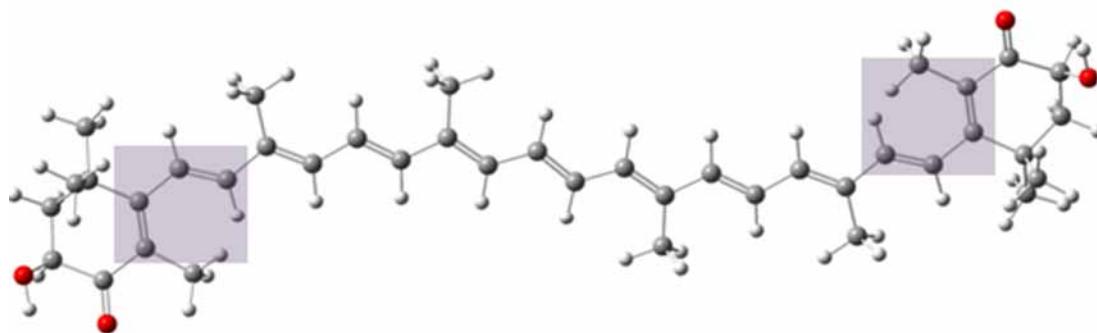
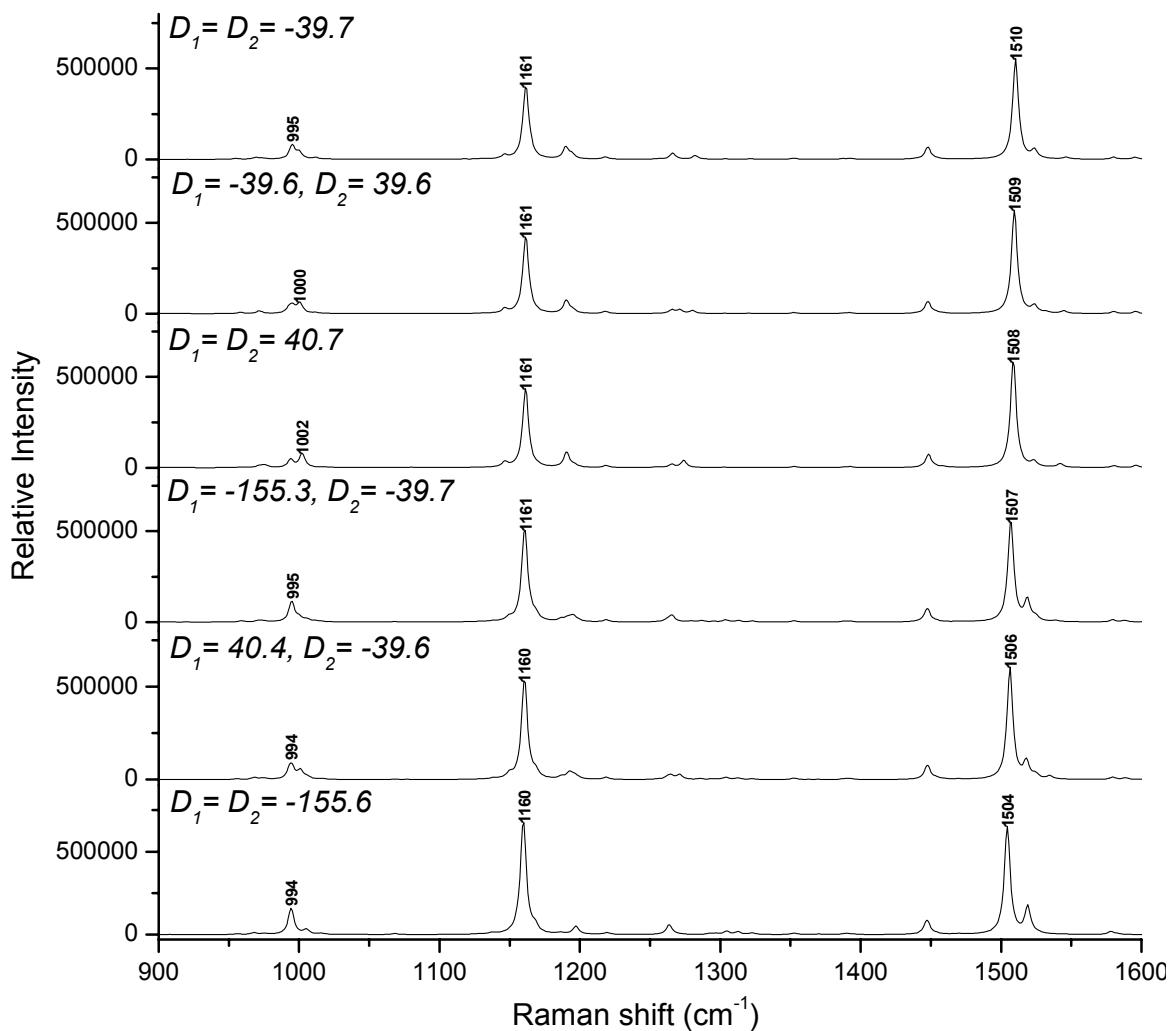


Fig.3S Theoretical Raman spectra ((B3LYP/6-31+G(d,p)) of 3S,3S' AXT conformers differing by the conformation of the ionone rings in respect to the chain, denoted in blue in the molecular structure below the spectra (dihedral angles defining conformers, in degrees, are given in the spectra).