Electronic supplementary information

for

Lanthanide-induced shift reagents enable structural elucidation of natural products in inseparable complex mixtures - The case of elemenal from *Inula helenium* L. (Asteraceae)

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Fig. S1. Second order signal multiplicity of protons from the vinyl group of elemenal at δ_H 5.83 (**a**) and 4.88-4.95 (**b**) in the experimental (red colored) and simulated spectra (blue colored). WinDNMR software was used for this simulation.

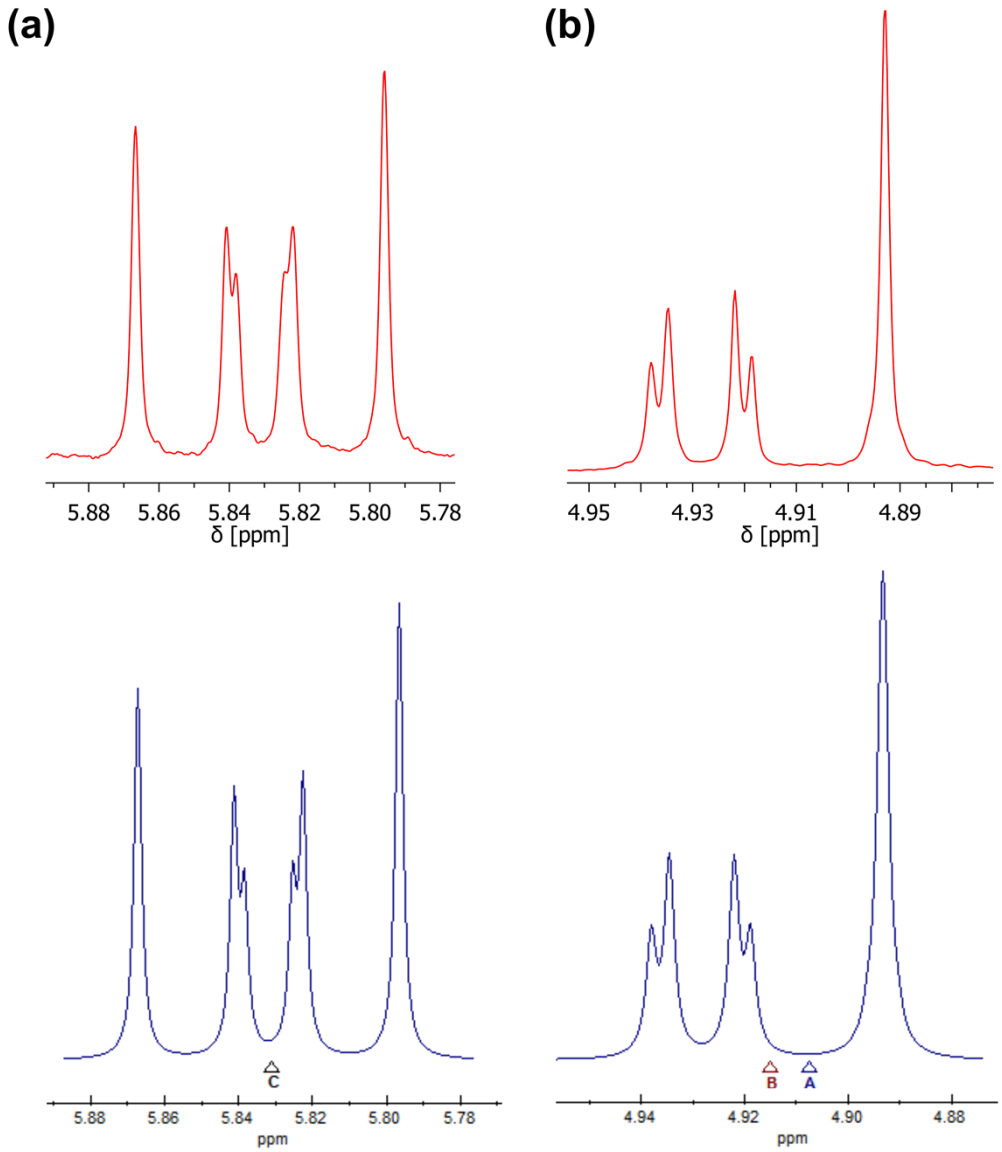

Fig S2. Fitting of the calculated (Δ_{cal}) to the observed (ΔEu) lanthanide-induced shift values for elemenal-Eu(fod)$_3$ complex (H-12, H-13a and H-13b protons were excluded due to a significant share of the contact shift) for the position of europium at r_o = 2.328 Å, α_o = 120° and β_o = 180°.

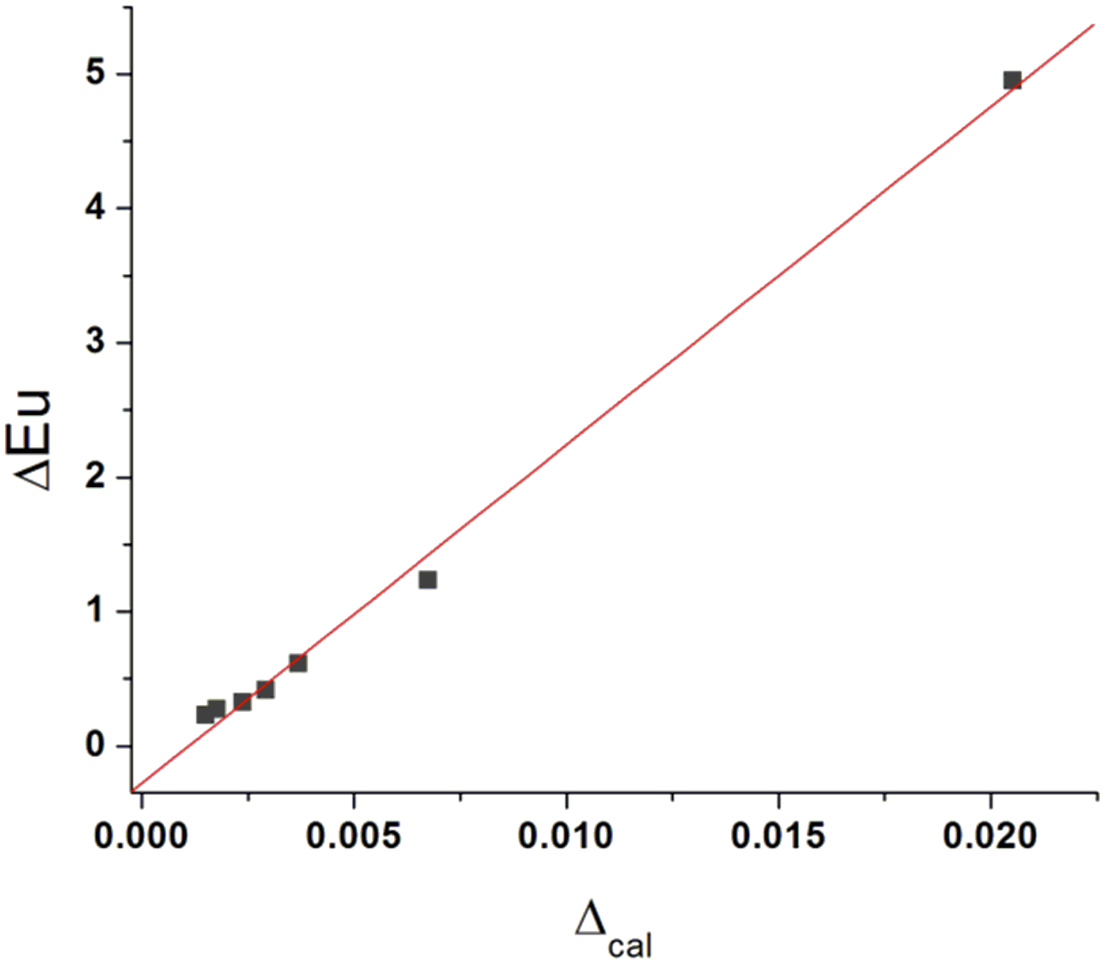

Fig. S3. The most likely conformation of elemenal-Eu(fod)$_3$ complex (in a Cartesian coordinate system) obtained by the lanthanide probe method (r_o = 2.328 Å, α_o = 120° and β_o = 180°). The parameters required for the calculation of Δ_{cal} values according to the McConnell-Robertson equation are illustrated for proton H-13b; r_i is the distance between europium and this nucleus, and θ_i is the angle between the vector corresponding to r_i and the vector r_o representing the Eu–O bond.