

Electronic Supporting Information

Exploring the interactions of ruthenium(II) carbosilane metallodendrimers and precursors with model cell membranes through a dual Spin-Label Spin-Probe technique using EPR

*Riccardo Carloni^{1†}, Natalia Sanz del Olmo^{234†}, Paula Ortega²³⁴, Alberto Fattori¹,
Rafael Gómez²³⁴, Maria Francesca Ottaviani¹, Sandra García-Gallego²³⁴, Michela
Cangiotti^{1*} and F. Javier de la Mata^{234*}*

^aDepartment of Pure and Applied Sciences, University of Urbino “Carlo Bo”, Urbino,
Italy.

^bDepartment of Organic and Inorganic Chemistry, and Research Institute in Chemistry
Andrés M. del Río” (IQAR), University of Alcalá, Madrid, Spain;

^cNetworking Research Center on Bioengineering, Biomaterials and Nanomedicine
(CIBER-BBN), Spain.

^dInstitute Ramón y Cajal for Health Research (IRYCIS), Spain.

Figures

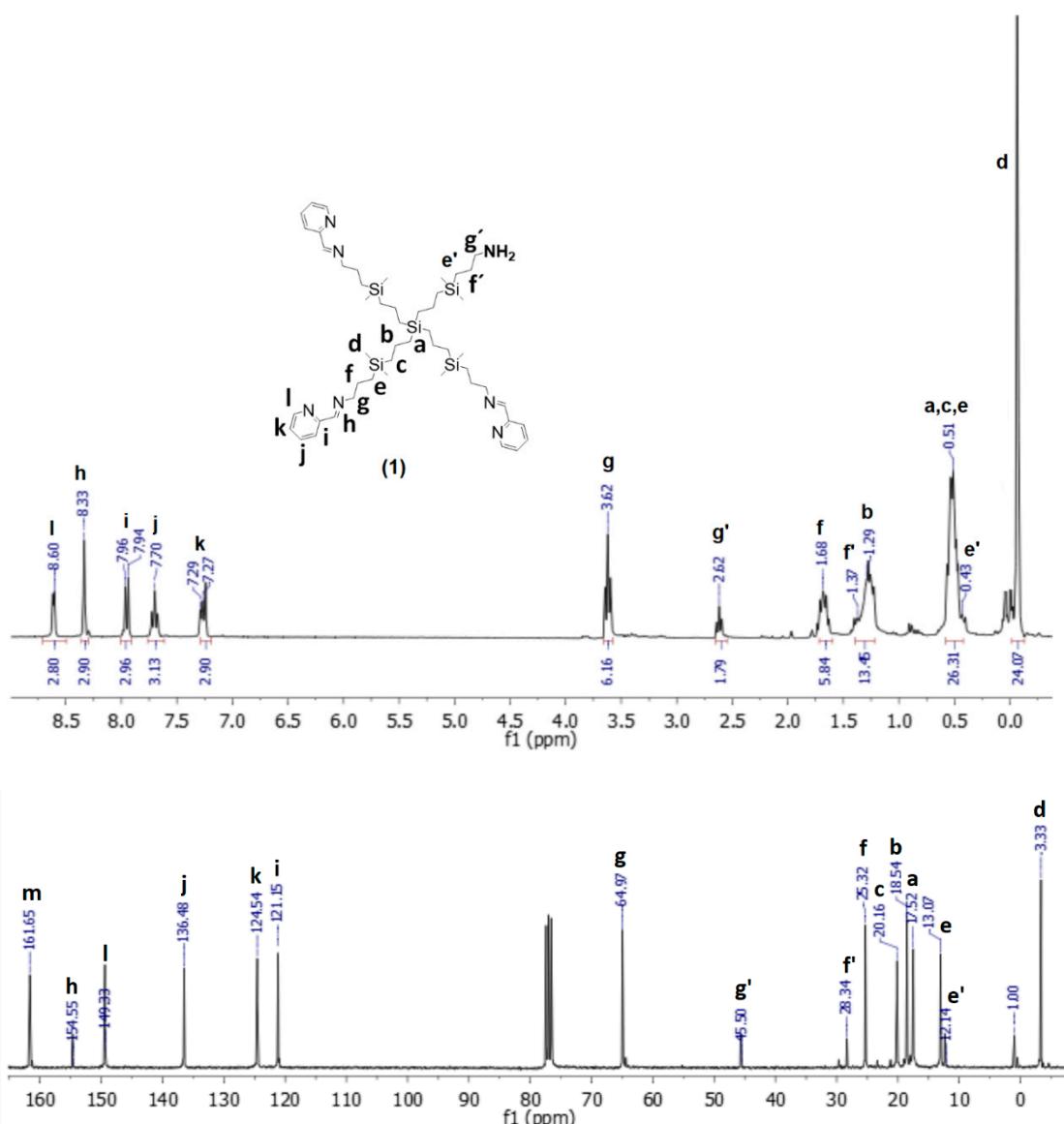


Figure S1. ^1H - and $^{13}\text{C}\{^1\text{H}\}$ -NMR spectra of compound **1** in CDCl_3 .

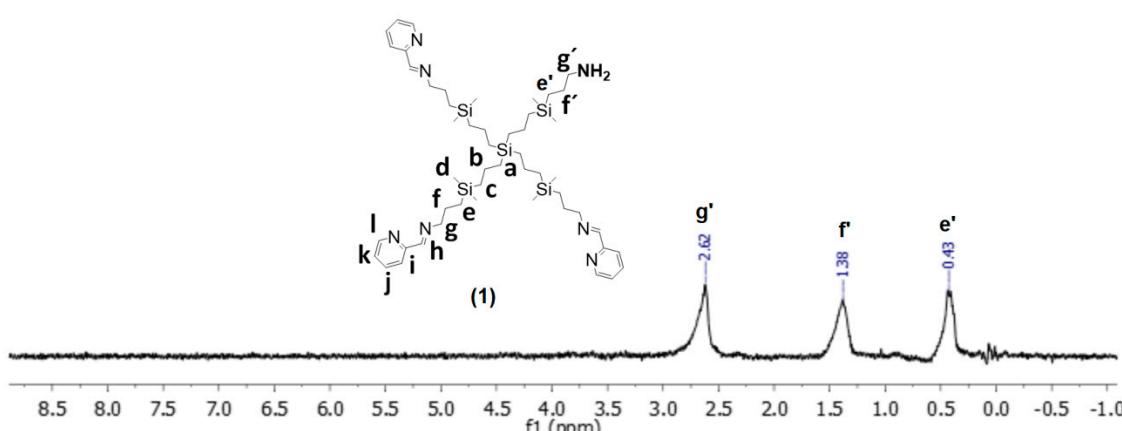


Figure S2. TOCSY 1D spectrum of compound **1** in CDCl_3 .

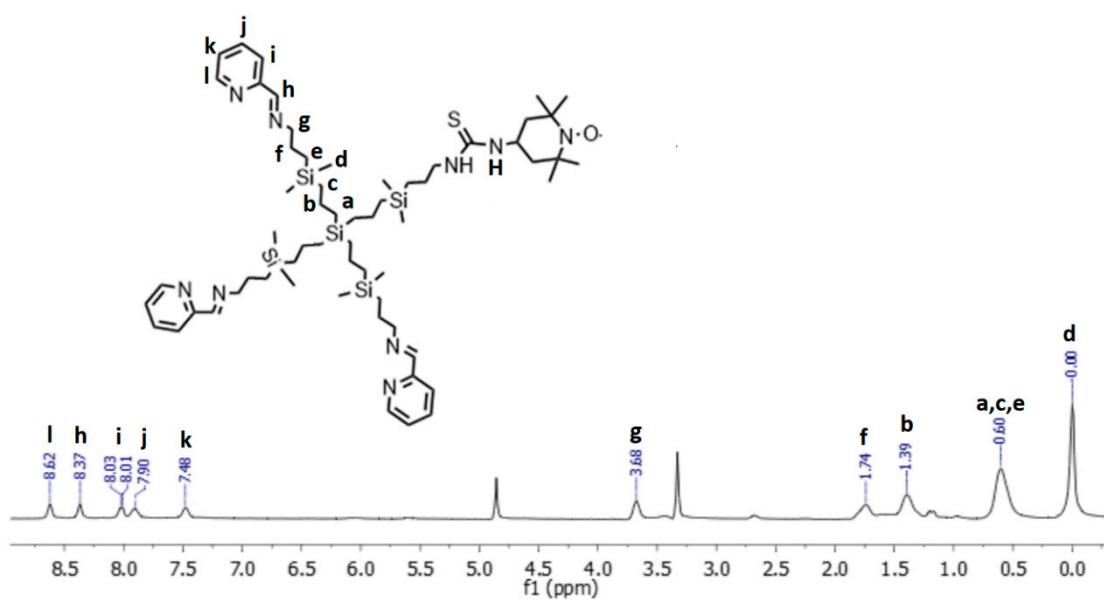


Figure S3. ^1H -NMR spectrum of compound 3 in CD_3OD .

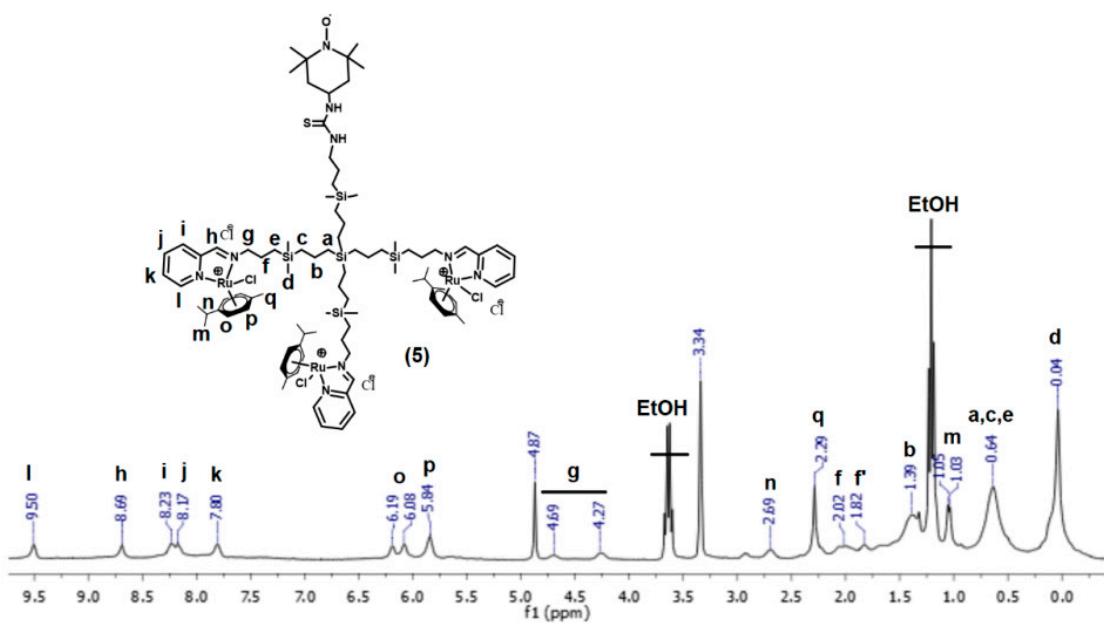


Figure S4. ^1H -NMR spectrum of compound 5 in CD_3OD .

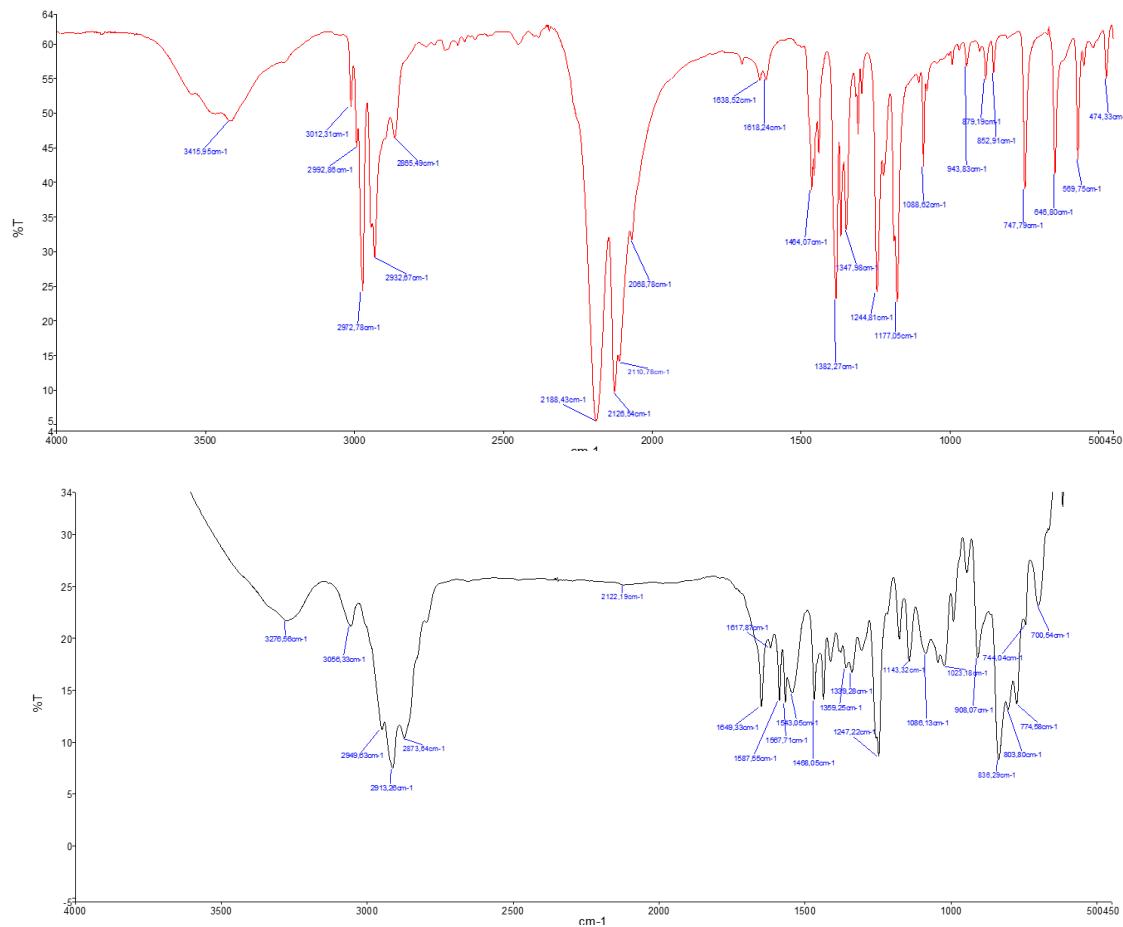


Figure S5. FT-IR spectra of precursor 4-isothiocyanateTEMPO (top) and compound 3 (bottom) in KBr.

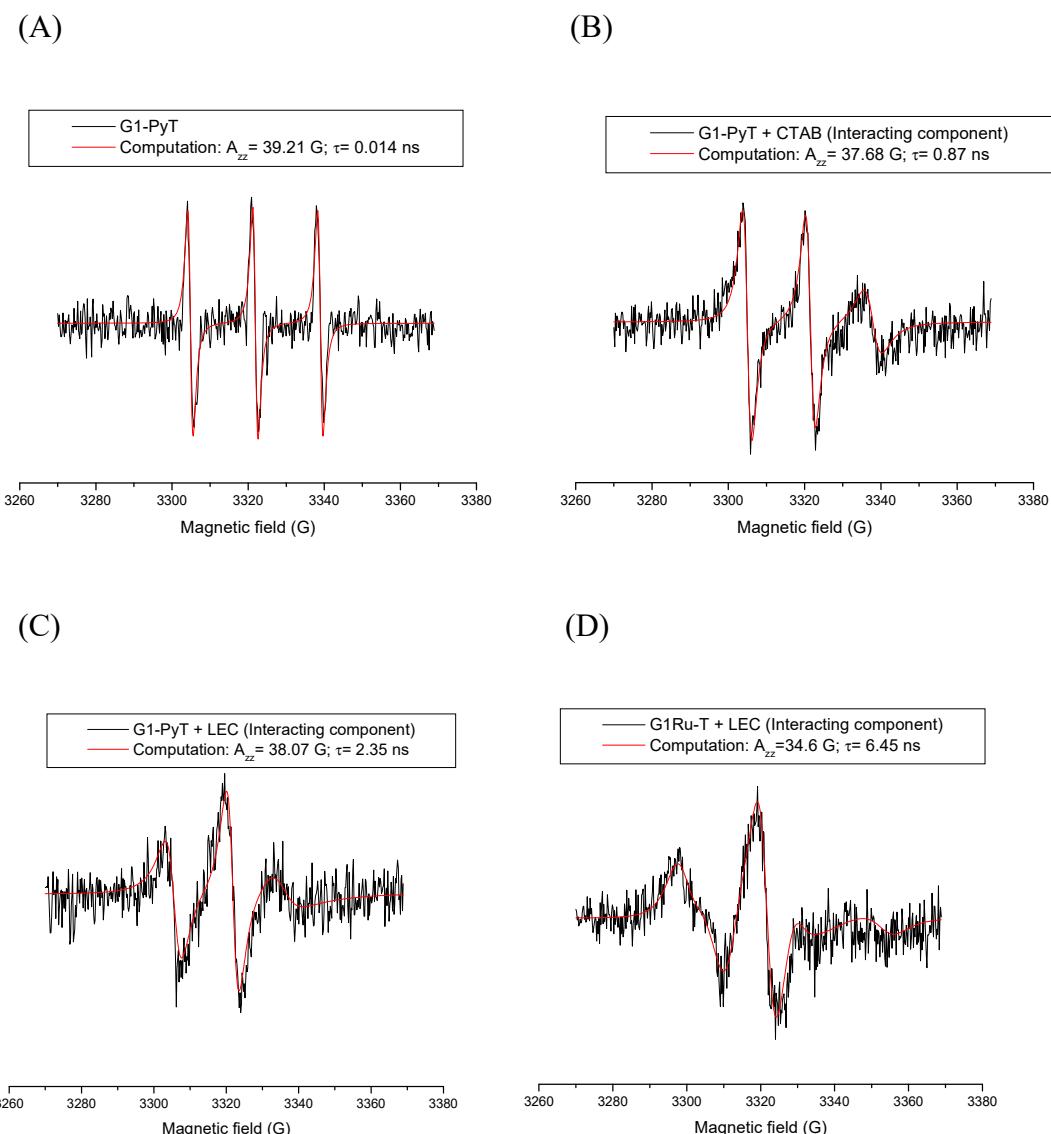


Figure S6. Examples of experimental and computed spectra of labelled dendrimers in the absence and presence of model membranes. Experimental and computed spectra of G₁-PyT, only constituted by the Free component (A). Experimental and computed Interacting component, obtained after subtraction of the Free component, of: (B) G₁-PyT+CTAB; (C) G₁-PyT+LEC; (D) G₁-RuT+LEC. The spectra are normalized in height.

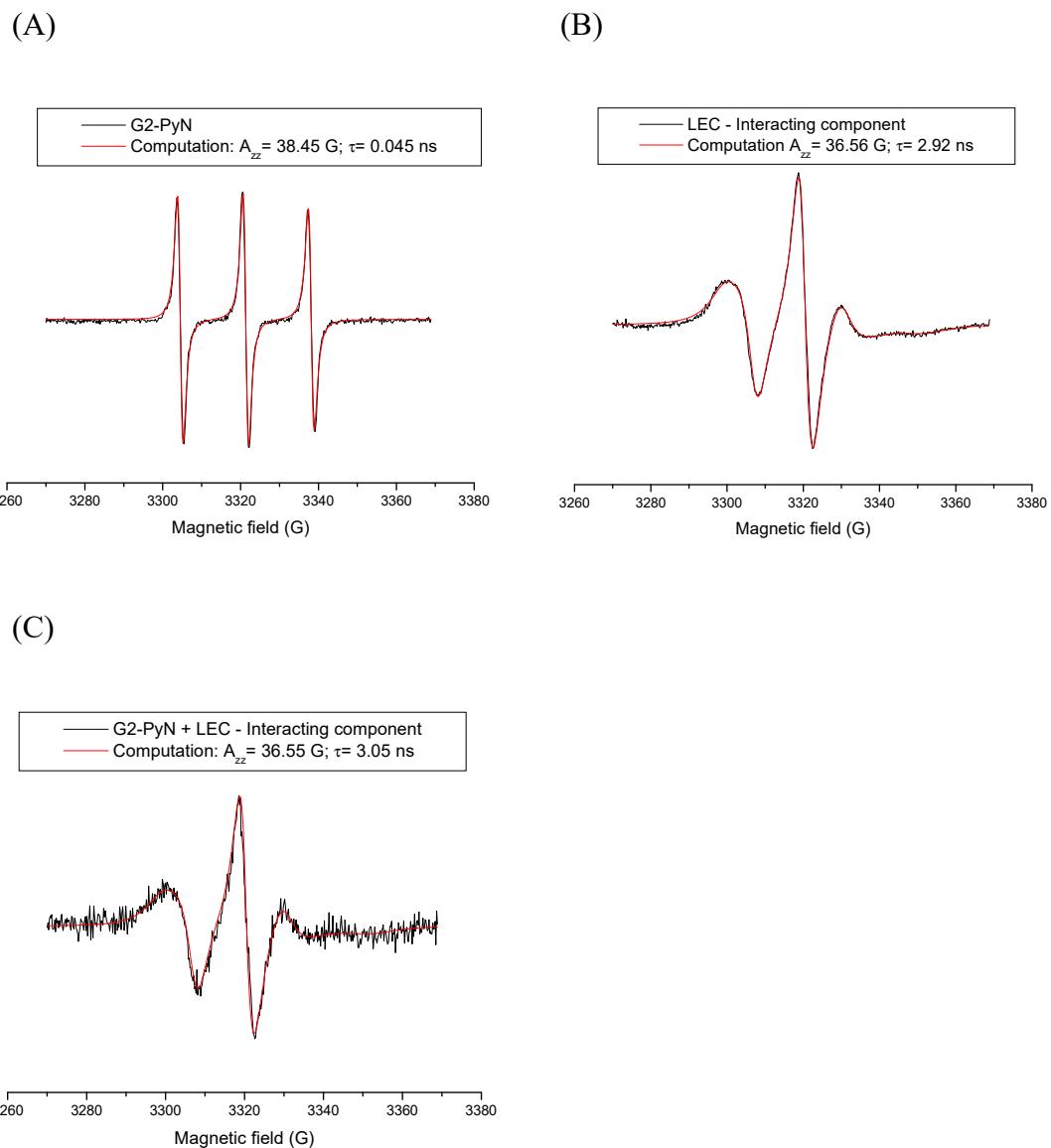


Figure S7. Examples of experimental and computed spectra of non-labelled dendrimers in the absence and presence of model membranes. Experimental and computed spectra of CAT12 in G₂-PyN, only constituted by a free component (A). Examples of computations of the interacting component for CAT12 in: LEC (B); and G₂-PyN+LEC (C).

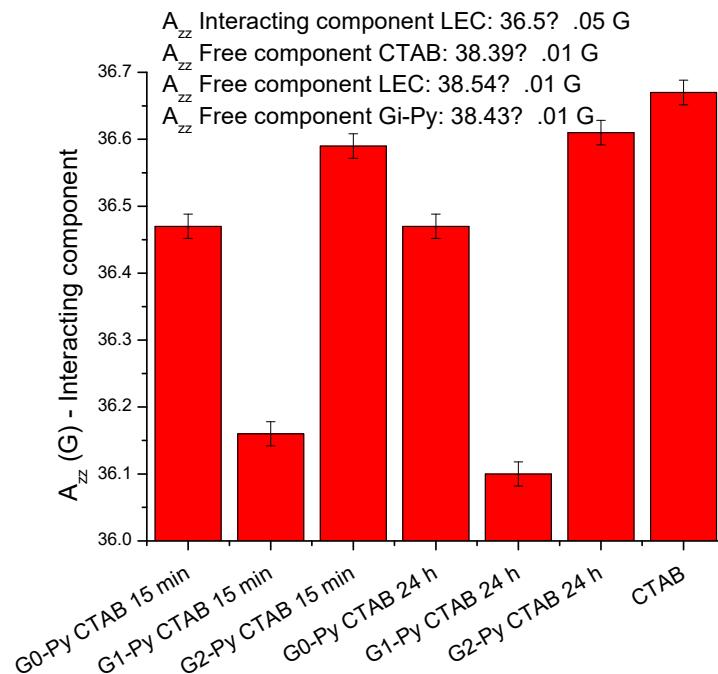


Figure S8: A_{zz} values obtained by computing the Free and the Interacting components for CTAB for homofunctional dendrimers G_n-Py.