

J-Coupling Constants for a Trialanine Peptide as a function of Dihedral Angles Calculated by  
Density Functional Theory over the full Ramachandran Space.

Pedro Salvador,<sup>‡\*</sup> I-Hsien (Midas) Tsai and J. J. Dannenberg<sup>‡‡\*</sup>

Department of Chemistry, City University of New York - Hunter College and the Graduate  
School, 695 Park Avenue, New York NY 10065; Institute of Computational Chemistry and  
Department of Chemistry, University of Girona, 17071 Girona (Catalonia)

pedro.salvador@udg.edu, [jdannenberg@gc.cuny.edu](mailto:jdannenberg@gc.cuny.edu)

Supplementary Figures

Coupling involving  $^{17}\text{O}$

Numbering Scheme in figure S1

Figures S2-4 display the results of the calculations as functions of the dihedral angles  $\phi$  and  $\psi$  in the format of Ramachandran plots. In each of these figures, the angle  $\phi$  is plotted vertically and  $\psi$ , horizontally, conforming to normal usage. The contours for the J's in Hz are labeled in the legends.

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<sup>‡</sup> University of Girona.

<sup>‡‡</sup> City University of New York, visiting professor University of Girona, 2006..

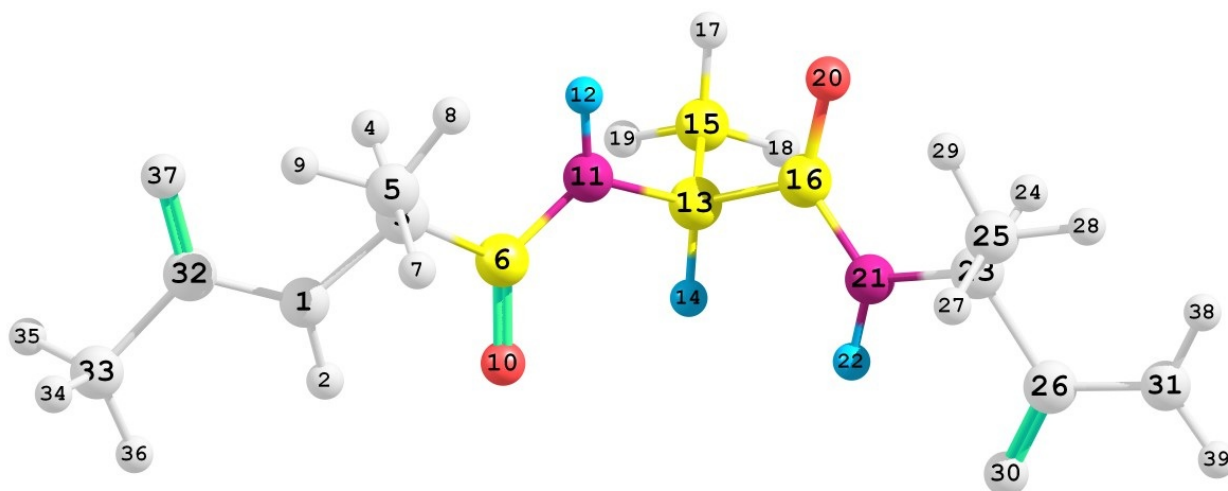


Figure S1. Numbering scheme used for acetyl(ALA)<sub>3</sub>NH<sub>2</sub>. Colored atoms are those activated for the calculation of J's.

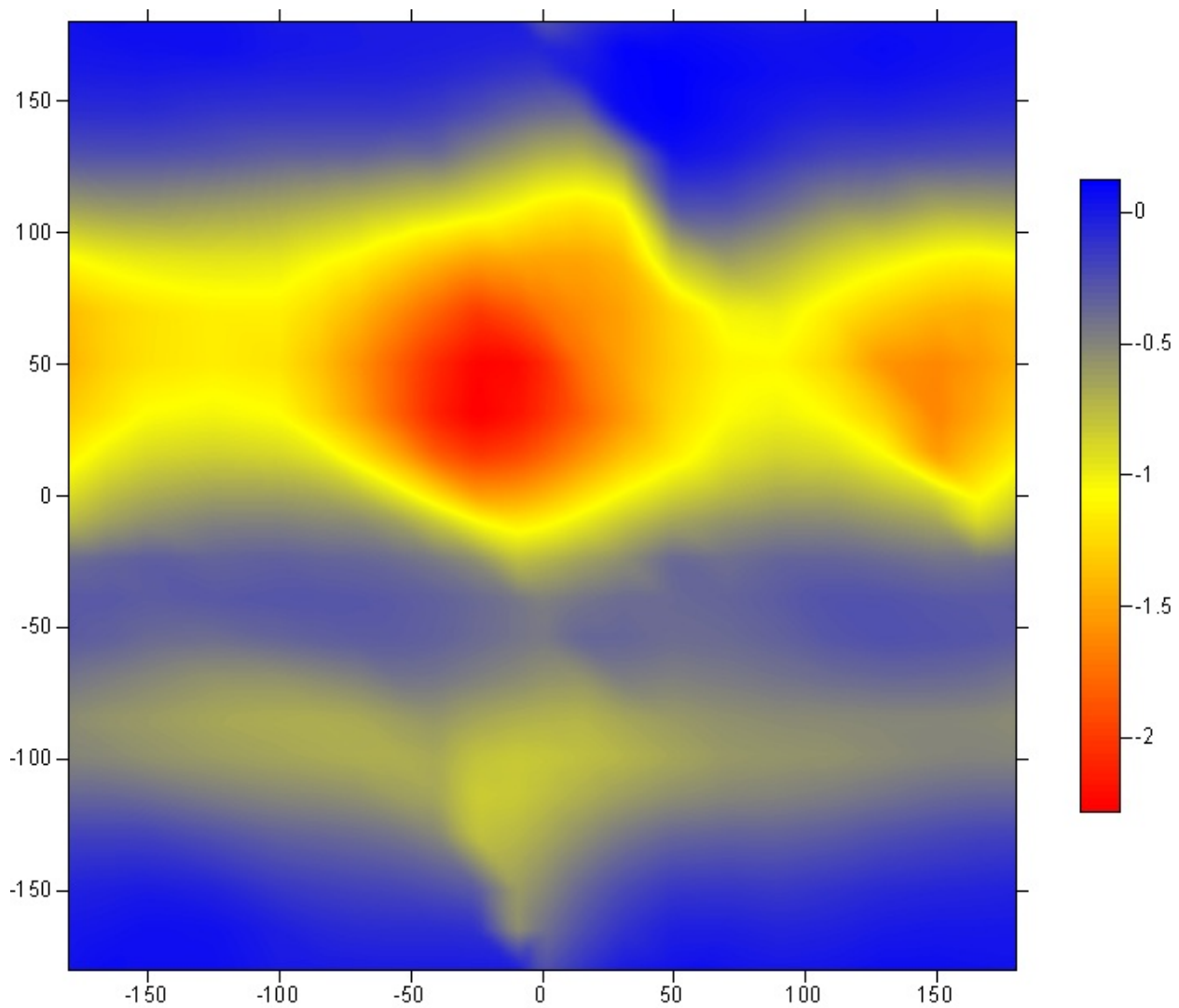


Figure S2.  ${}^3J(C_{15}-O_{20})$

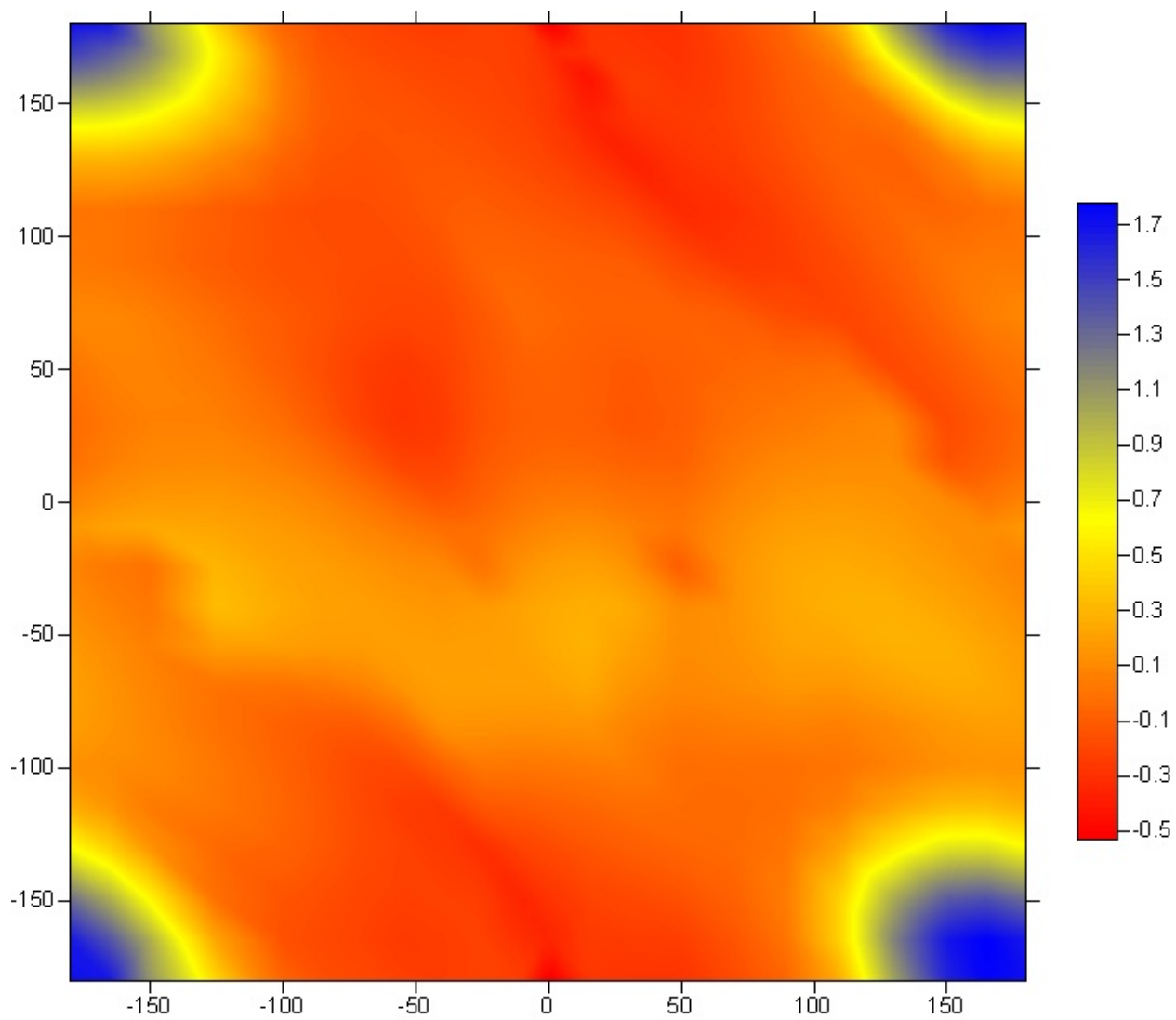


Figure S3.  ${}^3J(N_{11}-O_{20})$

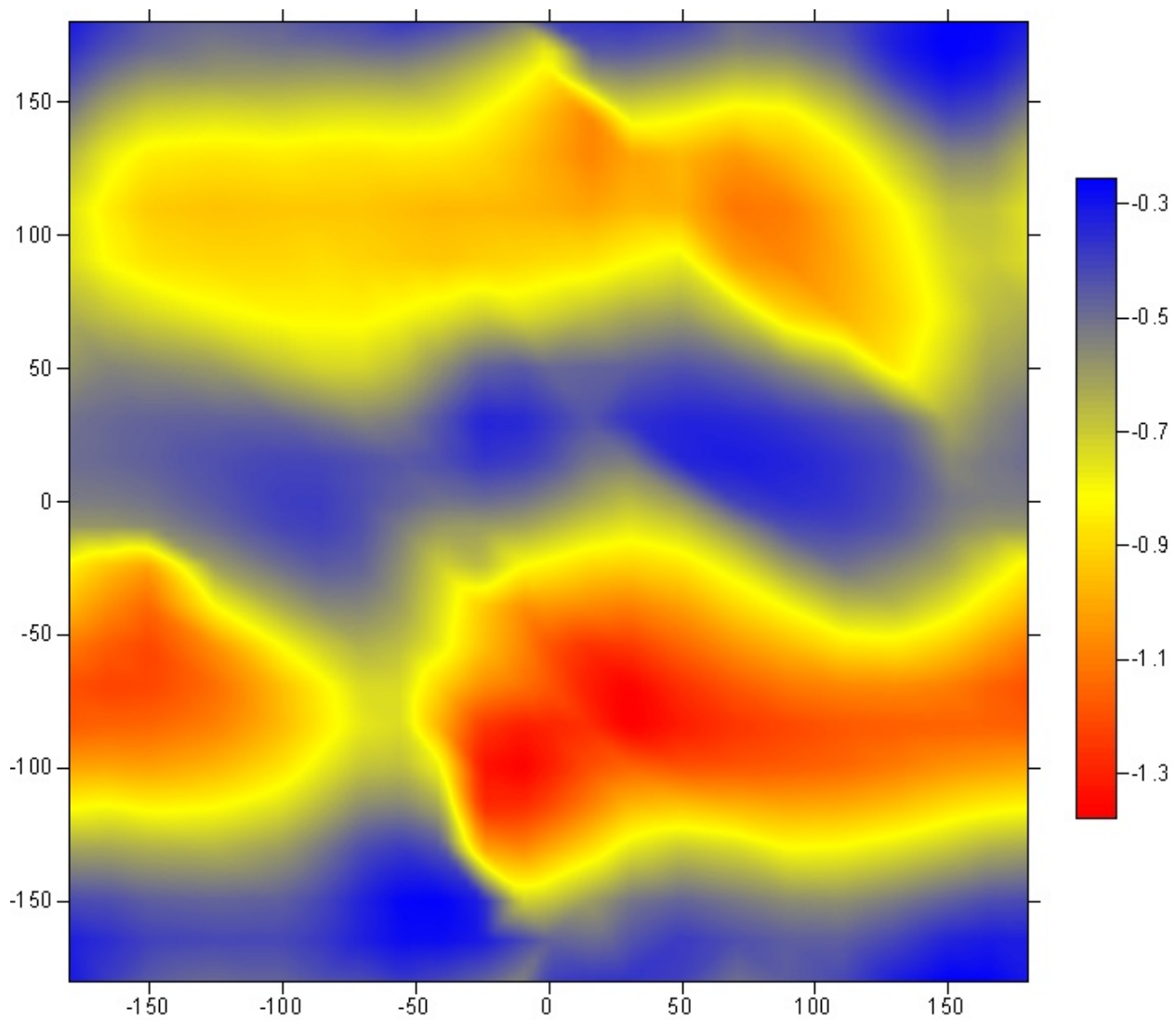


Figure S4.  ${}^3J(\text{H}_{14}\text{-O}_{20})$