## **Author Profile**



J. L. Alonso

The author presented on this page has recently published his 10th article since 2000 in Angewandte Chemie: "Conformations of y-Aminobutyric Acid (GABA): The Role of the  $n\rightarrow\pi^*$  Interaction": S. Blanco, J. C. López, S. Mata, J. L. Alonso, Angew. Chem. 2010, 122, 9373-9378; Angew. Chem. Int. Ed. 2010, 49, 9187-9192.

# Angewandte Chemie

The work of J. L. Alonso has been featured on the cover of Angewandte Chemie: "The Glycine-Water Complex": J. L. Alonso, E. J. Cocinero, A. Lesarri, M. E. Sanz, J. C. López, Angew. Chem. 2006, 118, 3551-3554; Angew. Chem. Int. Ed. 2006, 45, 3471 - 3474.

## José L. Alonso

Date of birth: June 9, 1951

interests:

Position: Professor of Physical Chemistry, University of Valladolid (Spain)

Director of the Laboratorio de Espectroscopia y Bioespectroscopia

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1969-1978 Studies of Chemistry and PhD at the University of Valladolid **Education**:

1979–1981 Postdoc with Professor E. B.Wilson , Harvard University, Cambridge (USA) Premio de Investigación 2004 Real Sociedad Española de Química; Premio Junta Castilla y

Awards:

León 2008 de Investigación Científica y Técnica **Current research** 

Our largest activity currently lies in gas-phase structural studies of biomolecular building blocks, neurotransmitters, drugs, and their clusters with water. We develop new applications of laser

ablation technologies, supersonic jets, and Fourier transform microwave spectroscopy for high

resolution spectroscopic studies of these species.

**Hobbies:** Motorcycles and music

### My favorite food is ... Spanish ham.

The most significant scientific advance of the last hundred years has been ... the discovery of the laser.

The biggest problem that scientists face is ... lack of public interest.

The three qualities that make a good scientist are ... tenacity, tenacity, and tenacity.

In my opinion, the word "scientist" means ... being passionate and patient.

My first experiment was ... using acid/base indicators.

f I were not a scientist, I would be ... a musician.

The most exciting thing about my research is ... dealing with isolated molecules.

My biggest motivation is ... working with people who have scientific enthusiasm.

n my spare time I ... ride motorcycles.

My favorite band is ... The Eagles.

My worst habit is ... to be late.

The most significant advance in chemistry in the last hundred years has been ... quantum mechanics.

#### My 5 top papers:

- 1. "Study of an Intramolecular, Bifurcated Hydrogen Bond in 1,3-Dioxan-5-ol by Microwave Spectroscopy": J. L. Alonso, E. B. Wilson, J. Am. Chem. Soc. 1980, 102, 1248-1251. (First experimental evidence of a bifurcated hydrogen bond in the gas phase.)
- 2. "Axial and Equatorial Hydrogen Bonds in the Tetrahydropyran···HCl dimer": S. Antolinez, J. C. López, J. L. Alonso, Angew. Chem. 1999, 111, 1889-1892; Angew. Chem. Int. Ed. 1999, 38, 1772-1774. (First observation of the axial and equatorial hydrogen bonds in complexes formed in the gas phase.)
- 3. "A Laser-Ablation Molecular-Beam Fourier Transform Microwave Spectrometer: The Rotational Spectrum of Organic Solids": A. Lesarri, S. Mata, J. C. López, J. L. Alonso. Rev. Sci. Instrum. 2003, 74, 4799-4804. (A spectrometer that combines laser ablation of a solid sample with molecular-beam Fourier-tranform microwave spectroscopy (LA-MB FTMW) has been con-

- structed to obtain the rotational spectra of solid biomolecules.)
- "The Glycine-Water Complex": J. L. Alonso, E. J. Cocinero, A. Lesarri, M. E. Sanz, J. C. López, Angew. Chem. 2006, 118, 3551-3554; Angew. Chem. Int. Ed. **2006**, 45, 3471 – 3474. (First experimental observation of the monohydrated cluster of the prototypical amino acid glycine, which represents the initial step of the hydration process.)
- "Rotational Spectral Signatures of Four Tautomers of Guanine": J. L. Alonso, I. Peña, J. C. López, V. Vaquero, Angew. Chem. 2009, 121, 6257-6259; Angew. Chem. Int. Ed. 2009, 48, 6141-6143. (This first rotational study of guanine confirms the power of LA-MB FTMW spectroscopy for the investigation of the structure of solid biomolecules in the gas phase. The experimental data enabled us to unequivocally identify the four most stable tautomers of guanine in the gas phase.)

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