PERSONAL DATA

Name: Guillermo MINGUEZ ESPALLARGAS *Date of birth*: 6th December 1981, Seville, Spain
Email: guillermo.minguez@uv.es *Website URL*: http://www.uv.es/guimines

PROFESSIONAL STATUS

Position: Ramón y Cajal Fellow (Dec. 2014 – present)
Centre: Instituto de Ciencia Molecular (ICMol), University of Valencia (Spain).
Address: c/ Catedrático José Beltrán 2, 46980 Paterna (Spain).

UNIVERSITY EDUCATION

- *Research associate* at the ICMol of the University of Valencia (Spain) (Jan. 2012 – Nov. 2014).
- *"Juan de la Cierva" researcher* at the ICMol of the University of Valencia (Spain) (Jan. 2009 – Dec. 2011).
- *Post-Doc* at the ICMol of the Univ. of Valencia (Spain) with Prof. Eugenio Coronado (Sep. 2008 – Dec. 2008).
- *Post-Doc* at the University of Sheffield (UK) with Prof. Lee Brammer (Dec. 2007 – May 2008).
- *PhD* in Solid State Chemistry at the University of Sheffiled (UK) under the supervision of Prof. Lee Brammer: "Solid state supramolecular chemistry involving halogens: interactions and reactions" (Nov. 2007).
- *Licenciado* en Ciencias Químicas (Degree in Chemistry) at the University of Seville (Jun. 2004). Awarded first class honours: 3.85 (98 %).

AWARDS

- Selected in **1st position in the national ranking** of the 2013 Ramón y Cajal call in the Chemistry area
- "**Young Talent Award Comunitat Valenciana**" in the category of Science for his career as a young researcher (2013)
- Selected to attend the **63rd Meeting of Nobel Laureates** in Lindau
- "**Xavier Solans Award 2011**" for the best scientific work in the area of Crystallography
- 2010 "**Real Academia Sevillana de Ciencias Award**" for young researchers (< 35 years old)
- 2009 winner of the **"RSC Dalton Young Research Award"** in recognition of his research in Inorganic Chemistry
- **Gold Medal** at the "**European Young Chemist Award 2008**" at PhD level
- "**2007 Ludo Frevel Crystallography Scholarship Award**" to pursue crystallographically-oriented research (only European recipient of this international award in 2007)
- "**Segundo Premio Nacional de Fin de Carrera** de Educación Universitaria" Spanish national award
- "**Premio Extraordinario** Fin de Carrera" award, **"Real Maestranza de Caballería**" award, "**San Alberto Magno**" award and "**Ayuntamiento de Sevilla**" award to the best graded 1999–2004 Chemistry Master's student by the University of Seville

10 SELECTED PUBLICATIONS

- *Solvent-free synthesis of a pillared three-dimensional coordination polymer with magnetic ordering*. J. López Cabrelles, M. Giménez-Marqués, G. Mínguez Espallargas*, E. Coronado. *Inorg. Chem.* ***2015,*** 54*,* 10490−10496.
- *A SIM-MOF: three-dimensional organization of Single-Ion Magnets with anion exchange capabilities*. J. J. Baldoví, E. Coronado,* A. Gaita-Ariño, C. Gamer, M. Giménez-Marqués, G. Mínguez Espallargas*. *Chem. Eur. J.* **2014***, 20,* 10695–10702. Invited contribution to the special issue: *"European Young Chemists"* (selected as cover)
- *Structural re-arrangement in two hexanuclear Cu^{II} complexes: from a spin frustrated trigonal prism to a strongly coupled antiferromagnetic soluble ring complex with a porous tubular structure*. W. Cañon-Mancisidor, C. J. Gómez-García,* G. Mínguez Espallargas*, A. Vega, E. Spodine, D. Venegas- Yazigi, E. Coronado*. *Chem. Sci.* **2014***, 5,* 324–332.
- *Spin-crossover modification through selective CO_2 sorption*. E. Coronado, M. Giménez-Marqués, G. Mínguez Espallargas*, F. Rey, I. J. Vitórica-Yrezábal. *J. Am. Chem. Soc.* **2013***, 135,* 15986−15989. Selected as monthly highlight by the editors of Nature Chemistry: *Nature Chem.* **2013**, *5*, 984

- *A ligand combination approach for spin-crossover modulation in a linear Fe^{II} coordination polymer through ligand substitution*. N. Calvo Galve, E. Coronado, M. Giménez-Marqués, G. Mínguez Espallargas*. *Inorg. Chem.* **2014***, 53,* 4482−4490.
- *Dynamic magnetic MOFs*. E. Coronado*, G. Mínguez Espallargas*. *Chem. Soc. Rev.* **2013***, 45,* 1525.
- *Tuning the magneto-structural properties in non-porous coordination polymers through HCl chemisorption*. E. Coronado, M. Giménez-Marqués, G. Mínguez Espallargas*, L. Brammer. *Nature Commun.* **2012***, 3,* 828.
- *One dimensional organization of organic spins via halogen bonding*. G. Mínguez Espallargas*, A. Recuenco, F. M. Romero, L. Brammer, S. Libri. *CrystEngComm* **2012***, 14,* 6381.
- *Combination of magnetic susceptibility and electron paramagnetic resonance to monitor the 1D to 2D solid state transformation in flexible metal–organic frameworks of Co(II) and Zn(II) with 1,4- bis(triazol-1-ylmethyl)benzene*. E. Coronado, M. Giménez-Marqués, G. Mínguez Espallargas*. *Inorg. Chem.* **2012***, 51,* 4403.
- *Effects of halogen bonding in ferromagnetic chains based on Co(II) coordination polymers.* J. M. Clemente-Juan, E. Coronado, G. Mínguez Espallargas*, H. Adams, L. Brammer. *CrystEngComm* **2010***, 12,* 2339 (New Talents Special Issue).

Other publications include 38 research articles and 4 chapters in books
Corresponding author of 18 publications
h-index: 20; **average citations per item**: 35.5 (ISI Web of Science, 01/2016)

10 SELECTED CONTRIBUTIONS TO CONFERENCES

- **ACIN2015.** Namur (Belgium), July 2015. **Invited oral presentation**: "*Stimuli-responsive coordination polymers: effects of chemisorption and physisorption of gases"*, G. Mínguez Espallargas, N. Calvo Galve, J. López-Cabrelles, M. Giménez-Marqués, E. Coronado.
- **XXIII Congress of the International Union of Crystallography.** Montreal (Canada), Aug. 2014. **Invited oral presentation**: "*Gas-induced magnetic modifications in responsive coordination polymers"*, G. Mínguez Espallargas, M. Giménez-Marqués, N. Calvo Galve, E. Coronado.
- **VII Int. Congress of ANQUE.** Madrid (Spain), July 2014. **Invited Keynote presentation**: "*Responsive magnetic coordination polymers: tuning magnetic properties through gas sorption"*, G. Mínguez Espallargas, M. Giménez-Marqués, N. Calvo Galve, E. Coronado.
- **1st International Symposium on Halogen Bonding.** Porto Cesareo (Italy), June 2014. **Invited oral presentation**: "*Halogen bonding in magnetic molecular systems"*, G. Mínguez Espallargas.
- **European Conference on Molecular Magnetism.** Paris (France), Nov. 2011. **Oral presentation**: "*Structural and Functional Transformations in Magnetic MOFs"*, G. Mínguez Espallargas, M. Giménez-Marqués, E. Coronado.
- **III Reunión de Jóvenes Cristalógrafos.** La Laguna (Spain), Oct. 2011. **Invited oral presentation**: "*Flexible Magnetic Metal-Organic Frameworks and Their Reactivity in the Solid State"*, G. Mínguez Espallargas, M. Giménez-Marqués, E. Coronado.
- **XXII Congress of the International Union of Crystallography.** Madrid (Spain), Aug. 2011. **Invited oral presentation** (2011 Xavier Solans Award): *Mechanistic insights into a gas–solid reaction in molecular crystals: the role of hydrogen bonding"*, G. Mínguez Espallargas.
- **XII Escuela Nacional de Materiales.** Benicassim (Spain), Feb. 2011. **Invited oral presentation**: "*Metal-organic frameworks based on a flexible N-donor ligand"*, G. Mínguez Espallargas, M. Giménez-Marqués, E. Coronado.
- **2nd Meeting of the Italian and Spanish Crystallographic Associations.** Oviedo (Spain), Mar. 2010. **Keynote presentation**: "*Structural changes upon gas sorption of non-porous crystalline solids"*, G. Mínguez Espallargas.

- **XXI Congress of the International Union of Crystallography.** Osaka (Japan), Aug. 2008. **Invited oral presentation**: *"Metal-organic Networks Designed by Combination of Hydrogen Bonds and Halogen Bonds",* G. Mínguez, L. Brammer.

Other contributions to conferences/seminars include 99 presentations (a total of 24 invited lectures, 3 of them keynote)

THESIS AND PROJECS SUPERVISED

PhD: Mónica Giménez-Marqués: "*Stimuli responsive magnetic coordination polymers: from crystals to nanostructures",* ICMol, University de Valencia (Nov. 2013), Excellent cum laude.

Néstor Calvo Galve: "*Modulating the transition temperature in SCO MOFs: from chemical combination to gas sorption",* ICMol, University de Valencia (expected in 2017).

Master: Néstor Calvo Galve: "*Modulating the transition temperature in SCO MOFs: from chemical combination to gas sorption",* ICMol, University de Valencia (Apr. 2014), Excellent.

M. Luisa García Sanz de Larrea: "*Synthesis, study and processing of spin-crossover nanoparticles",* ICMol, University de Valencia (Mar. 2015), Excellent.

Javier López Cabrelles: "*Intercambio aniónico en redes metalorgánicas basadas en Single-Ion Magnets: estudio del tamaño, la carga y la naturaleza*", ICMol, University de Valencia (expected in April 2016).

9 undergraduate research projects at U. Valencia and U. Sheffield.

OTHER ACHIEVEMENTS

Guest Editor of Special Issues in journals *Coordination Chemistry Reviews* **(**2013) and *Polymers* (2016)

Organization of events: Member of the Organizing committee of:

5th European Conference on Molecular Magnets (Zaragoza, Sep. 2015)
40th ICCC (Valencia, Sep. 2012)
IUCr 2011 Satellite workshop (Sigüenza, Aug. 2011)
VII Simposio de Investigadores Jóvenes RSEQ Sigma-Aldrich (Valencia, Nov. 2010)

Chair of the following symposia:

"*Metal-Organic Frameworks and related materials*" of the 2nd MISCA Congress
"*Functional MOFs*" of the 41st International Conference on Coordination Chemistry
"*Magnetic materials*" of the VII International Congress of ANQUE
"*Metal-Organic Frameworks (MOFs)*" of the 40th International Conference on Coordination Chemistry
"*Anion Recognition and Templation in Halogen Bonding*"of the XXII Congress of the International Union of Crystallography

PhD Examiner

M. R. Azani, Universidad Autónoma de Madrid (Apr. 2014)
D. Briones, Universidad Rey Juan Carlos (Dec. 2015)

Project evaluator

Spanish Agency "*Agencia Nacional de Evaluación de Calidad y Acreditación, ANECA*"
Portuguese Agency *"FCT Fundacao para a Ciencia e a Tecnologia*"

Referee of *Nature Chem., J. Am. Chem. Soc., Angew. Chem. Int. Ed., Chem. Commun., Chem. Soc. Rev., Acc. Chem. Res., J. Mater. C, Inorg. Chem., CrystEngComm, Acta Cryst. B, RSC Advances, ZAAC, Inorg. Chim. Acta, Int. J. Mol. Sci.*

Research projects:

PI of one National Project of Excellence: *"Chemical stimuli-responsive magnetic coordination polymers – CHEMSTRES"* CTQ2014-59209-P (from Jan. 2015 to Dec. 2017)
Participation in **4** research projects funded by the Spanish MICINN and **3** projects funded by the EU.