J. Poblet

*The author presented on this page has published more than **10 articles** in Angewandte Chemie in the last 10 years, most recently:* "Alkaline Earth Guests in Polyoxopalladate Chemistry: From Nanocube to Nanostar via an Open-Shell Structure": P. Yang, Y. Xiang, Z. Lin, B. S. Bassil, J. Cao, L. Fan, Y. Fan, M.-X. Li, P. Jiménez-Lozano, J. J. Carbó, J. M. Poblet, U. Kortz, *Angew. Chem. Int. Ed.* **2014**, *53*, 11974–11978; *Angew. Chem.* **2014**, *126*, 12168–12172.

# Josep M. Poblet

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| **Date of birth**: | April 21, 1956 |
| **Position**: | Professor of Physical Chemistry and Head of the Physical and Inorganic Chemistry Department, Universitat Rovira i Virgili, Tarragona |
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| **Education:** | 1979 BSc, Universitat de Barcelona<br>1983 PhD supervised by Enric Canadell, Universitat de Barcelona<br>1983–1984 Postdoctoral work supervised by Marc Bénard, Université Louis Pasteur, Strasbourg |
| **Awards**: | **2012** Physical Chemistry Award of the Real Sociedad Española de Química (Spanish Royal Society of Chemistry) |
| **Current research interests**: | Chemical and physical properties of carbon nanoforms; electronic structure and reactivity of polyoxometalate anions with special emphasis on functional structures for clean energy, catalysis, and devices; assembly of small molecular metal oxides in solution |
| **Hobbies**: | Cooking, chemistry, wine and "tapas", cinema |

**My biggest inspiration is …** my research group and my colleagues.

**My favorite principle is …** the Pauli exclusion principle.

**My favorite time of day is …** the morning, when I have my first coffee of the day.

**My favorite way to spend a holiday is …** travelling with my wife and our friends.

**The principal aspects of my personality are …** intuition and perseverance.

**My favorite author (science) is …** Roald Hoffmann, who uses theoretical chemistry to develop new and simple concepts that describe complex phenomena.

**My favorite painter is …** Pablo Picasso.

**My favorite songwriters are …** Leonard Cohen and Lluis Llach.

**The greatest scientific advance of the last decade was …** the progress made with antiretroviral therapy for AIDS.

**The biggest challenge facing scientists is …** to replace the oil-based economy to one based on clean energy for a world population of more than seven billion.

**Chemistry is fun because …** it enables you to develop your creativity. Chemists can be considered as architects at the molecular level.

**My favorite drink is …** red wine.

**My 5 top papers:**

1. "Electronic Properties of Polyoxometalates: Electron and Proton Affinity of Mixed-Addenda Keggin and Wells–Dawson Anions": X. López, C. Bo, J. M. Poblet, *J. Am. Chem. Soc.* **2002**, *124*, 12574–12582. (Redox properties and basicity of the external oxygen sites in polyoxometalates with nonequivalent addenda metals.)
2. "General Rule for the Stabilization of the Fullerene Cages Encapsulating Trimetallic Nitride Templates": J. M. Campanera, C. Bo, J. M. Poblet, *Angew. Chem. Int. Ed.* **2005**, *44*, 7230–7233; *Angew. Chem.* **2005**, *117*, 7396–7399. (A simple molecular orbital rule explains the most favorable carbon cage for endohedral metallofullerenes.)
3. "On the Origin of Alternating Bond Distortions and the Emergence of Chirality in Polyoxometalate Anions": L. Yan, X. López, J. J. Carbó, R. T. Sniatynsky, D. C. Duncan, J. M. Poblet, *J. Am. Chem. Soc.* **2008**, *130*, 8223–8233. (Bond-length distortions and the chirality observed within polyoxometalate ring structures originate from vibronic instability.)
4. "The maximum pentagon separation rule provides a guideline for the structures of endohedral metallofullerenes": A. Rodríguez-Fortea, N. Alegret, A. Balch, J. M. Poblet, *Nat. Chem.* **2010**, *2*, 955–961. (Physical evidence for the molecular orbital rule in reference [2].)
5. "Design and fabrication of memory devices based upon nanoscale polyoxometalate clusters": C. Busche, L. Vilà-Nadal, J. Yan, H. N. Miras, D.-L. Long, V. P. Georgiev, A. Asenov, R. H. Pedersen, N. Gadegaard, M. M. Mirza, D. J. Paul, J. M. Poblet, L. Cronin, *Nature* **2014**, *515*, 545–549. (Polyoxometalates are suitable as storage nodes for flash memory.)

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