

Publication list - Roberta Poloni

40. J. Carnis, A.R. Kshirsagar, L. Wu, M. Dupraz, S. Labat, M. Texier, L. Favre, L. Gao, F. E. Oropeza, N. Gazit, E. Almog, A. Campos, J.S. Micha, E. J. M. Hensen, S. J. Leake, T. U. Schulli, E. Rabkin, O. Thomas, R. Poloni, Jan P. Hofmann and M.I. Richard *Twin boundary migration in an individual platinum nanocrystal during catalytic CO oxidation* [Nature Commun.](#) **12**, 5385 (2021);
39. A. Develioglu, E. Resines-Urien, R. Poloni, L. Martín-Pérez, J. Sanchez-Costa, E. Burzurí *Tunable Proton Conductivity and Color in a Nonporous Coordination Polymer via Lattice Accommodation to Small Molecules* [Avd. Sci.](#) **2102619** (2021);
38. L. A. Mariano and R. Poloni* *Electric field-induced oxygen vacancies in $\text{YBa}_2\text{Cu}_3\text{O}_7$* [J. Chem. Phys](#) **154**, 224703 (2021);
37. A. R. Kshirsagar, X. Blase, C. Attaccalite, and R. Poloni* *Strongly Bound Excitons in Metal–Organic Framework MOF-5: A Many-Body Perturbation Theory Study* [J. Phys. Chem. Lett.](#) **12**, 4045-4051 (2021);
36. L. A. Mariano, B. Vlaisavljevich, R. Poloni* *Improved Spin-State Energy Differences of Fe(II) Molecular and Crystalline Complexes via the Hubbard U-Corrected Density Functional Theory* [J. Chem. Theory Comput.](#) **17**, 2807 (2021);
35. A.R. Kshirsagar, C. Attaccalite, X. Blase, J. Li, R. Poloni* *Bethe–Salpeter Study of the Optical Absorption of trans and cis Azobenzene-Functionalized Metal–Organic Frameworks Using Molecular and Periodic Models* [J. Phys. Chem. C](#) **125**, 7401-7412 (2021);
34. L. A. Mariano, B. Vlaisavljevich, R. Poloni* *Biased Spin-State Energetics of Fe(II) Molecular Complexes within Density-Functional Theory and the Linear-Response Hubbard U Correction* [J. Chem. Theory Comput.](#) **16**, 6755–6762 (2020);
33. A. Kshirsagar, G. D'Avino, X. Blase, J. Li, R. Poloni* *Accurate prediction of the S_1 excitation energy in solvated azobenzene derivatives via embedded orbital-tuned Bethe-Salpeter calculations* [J. Chem. Theory and Comput.](#) **16**, 2021–2027 (2020);
32. A. Gamonal, C. Sun, A. L. Mariano, E. Fernandez-Bartolome, E. San Vicente, B. Vlaisavljevich, R. Poloni*, R. Wannemacher*, J. Cabanillas-Gonzalez, J. Sanchez-Costa *Divergent Adsorption-Dependent Luminescence Amino-Functionalized Lanthanide Metal-Organic Frameworks for Highly Sensitive NO_2 Sensors* [J. Phys. Chem. Letters](#) **11**, 3362–3368 (2020);
31. E. Resines-Urien, E. Burzuri, E. Fernandez-Bartolome, M. Garcia-Tunon, P. de la Presa, R. Poloni, S.J. Teat and J. Sanchez-Costa *A switchable iron-based coordination polymer toward reversible acetonitrile electro-optical readout* [Chem. Sci.](#) **10**, 6612 (2019);
30. R. Poloni*, A. L. Mariano, D. Prendergast and J. Garcia-Barriocanal *Probing the electric field-induced mechanism in YBCO using computed Cu K-edge absorption spectra* [J. Chem. Phys.](#) **149**, 234706 (2018);
29. A. Koishi, A. Fernandez-Martinez, B. Ruta, M. Jiménez-Ruiz, R. Poloni, D. di Tommaso, F. Zontone, G. A. Waychunas and G. Montes-Hernandez *The role of impurities in the kinetic persistence of amorphous calcium carbonate : a nanoscopic dynamics view* [J. Phys. Chem. C](#) **122**, 16983 (2018);
28. C. Yang, A. Kshirsagar, A. Charaf-Eddin, L. Lin and R. Poloni* *Tuning Gas Adsorption by Metal Node-Blocking in Photoresponsive Metal-Organic Frameworks* [Chem. Eur. J.](#) **24**, 1 (2018), featured as Hot Paper;

27. A. Rodriguez-Velamazan, O. Roubeau, R. Poloni, E. Lhotel, E. Palacios, M. Gonzalez, J. A. Real *Long-range magnetic order in the porous metal-organic framework Ni(pyrazine)[Pt(CN)₄] Phys. Chem. Chem. Phys.* **19**, 29084 (2017);
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25. M. Dupraz, R. Poloni, K. Ratter, D. Rodney, M. De Santis, B. Gilles, G. Beutier and M. Verdier *Wetting layer of copper on the tantalum (001) surface* *Physical Review B* **94**, 235427 (2016);
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- 23 R. Poloni and J. Kim *Thermodynamics of gas adsorption in MOFs using ab initio calculations* Perspective article in *International Journal of Quantum Chemistry* **116**, 569 (2016);
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20. R. Poloni*, K. Lee, R. Berger, B. Smit and J. B. Neaton *Understanding trends in CO₂ adsorption in MOFs with open-metal sites'* *the Journal of Physical Chemistry Letters* **5**, 861 (2014);
19. R. Poloni and J. Kim *Predicting low-k zeolite materials* *Journal of Materials Chemistry C* **2**, 2298 (2014);
18. W. Drisdell, R. Poloni, T. M. McDonald, J. R. Long, B. Smit, J. B. Neaton, D. G. Prendergast and J. B. Kortright *Probing adsorption interactions in metal-organic frameworks using x-ray spectroscopy* *Journal of American Chemical Society* **135**, 18183 (2013);
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12. R. Poloni, J. Íñiguez, A. García and E. Canadell, "Efficient first-principles method for structural studies of materials with substitutional disorder", *Journal of Physics: Condensed Matter* **22**, 415401 (2010);

11. R. Poloni, E. Canadell and J.-P. Pouget *Concerning the possibility of hidden one-dimensional Fermi surfaces for the $K_{0.25}WO_3$ hexagonal bronze* [Inorganic Chemistry](#) **48**, 11492 (2009);
10. R. Poloni, P. Toulemonde, D. Machon, S. Le Floch, S. Pasquarelli and A. San-Miguel *Amorphization of Rb_6C_{60} and Cs_6C_{60} under high temperature and high pressure conditions* [High Pressure Research](#) **29**, 108 (2009);
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6. R. Poloni, M. V. Fernandez-Serra, S. Le Floch, S. De Panfilis, P. Toulemonde, D. Machon, W. Crichton, S. Pasquarelli, and A. San-Miguel *Pressure induced deformation of the C_{60} fullerene in Rb_6C_{60} and Cs_6C_{60}* [Physical Review B](#) **77**, 035429 (2008);
5. G. Morard, C. Sanloup, G. Fiquet, M. Mezouar, N. Rey, R. Poloni and P. Beck *Structure of eutectic Fe-FeS melts to pressures up to 17 GPa: implications for planetary cores* [Earth and Planetary Science Letters](#) **263**, 128 (2007);
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