

Nathalie STEUNOU

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✕ RESEARCH INTERESTS

Synthesis of complex hybrid organic-inorganic materials with peculiar emphasis on composites combining Metal Organic Frameworks and organic (polymers, biomacromolecules, graphene oxide) or inorganic (oxides) components for energy and environment-related applications.

✕ PROFESSIONAL CAREER

- Since 2016** Professor in the team Molecules, Interactions & Materials, ILV.
- 2010 -2016** Professor in the team « Porous Solids », ILV.
- 2007** Habilitation à Diriger des Recherches (HDR). Lab. Chimie de la Matière Condensée de Paris/Sorbonne University, Paris.
- 1999-2010** Assistant Professor/Maître de conférences, Team « Materials & Biology » Lab. Chimie de la Matière Condensée de Paris, Sorbonne University, Paris.
- 1999** Post Doc in the group of Pr J. Livage, Lab. Chimie de la Matière Condensée de Paris, Sorbonne University, Paris.
- 1998** Post-Doc in the group of Pr Markus Antonietti, Max Planck Institute of Colloids and Interfaces, Potsdam, Germany.
- 1994-1997** PhD, Lab. Chimie de la Matière Condensée de Paris, Sorbonne University, Paris. Advisor : Dr Clément Sanchez. Defended on the 18th December 1997.

✕ RESPONSABILITIES

- Since 2026** Head of the Molecules, Interactions & Materials (MIM) team with Anne Dolbecq.
- Since 2020** Member of the conseil de laboratoire (CDL) (2020-2024) and, since 2026, of the conseil de direction of ILV.
- Since 2020** Member of the Conseil National des Universités (CNU) (section 33)
- Since 2012** Elected member of the administration council of the Foundation of “Sciences du Patrimoine”.
- 2012-2020** Nominated member of the steering committee of the Labex “Charmmmat”.
- 2012-2016** Elected member of the administration council of UVSQ.
- 2013-2016** President of the disciplinary council of UVSQ.

✕ GRANT/CONTRACT WORK.

→ **5 EU projects:** “Sotherco” (FP7, 2013-2017, member of the steering committee), EU project “M4CO2” (FP7, 2014-2018); EU project “Gramofon” (H2020, 2016-2019); EU project “Nemosine” (H2020 2018-2022, local coordinator). EU project “Methasol” (H2020, 2020-2024, WP leader, member of the steering committee, local coordinator)

→ **26 national projects** : (i) Coordinator of 14 research projects (ANR PRC, Labex Charmmmat, Labex NanoSaclay, Fondation des Sciences du Patrimoine (FSP), DIM PAMIR), (ii) Coordinator of 2 equipment projects (DIM-CNano-IdF et Labex Nanosaclay), (iii) coordinator of 1 premature project (DIM-Respire), (iu) member of 7 research Projects (Labex Charmmmat, DIM-Respire, FSP, PEPR); (u) member of 2 valorization/premature projects (SATT Paris Saclay)

✕ PUBLICATIONS & CONFERENCES

111 Publications dans des journaux à comité de lecture (ORCID iD 0000-0002-7049-7388, h index = 42) ; **4 chapitres de livres, 5 brevets. « 32 communications invitées / keynote dans des conférences internationales & séminaires, 26 communications orales dans des conférences internationales.**

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[Researchgate](#)

✕ LIST OF PUBLICATIONS

-1- “Photophysics of cu-loaded MIL-125 (Ti)-NH₂: Unravelling the role of cu oxidation states through time-resolved spectroscopy and density functional theory.” A. Kuila, K. Dassouki, V. Diez Cabanes, D. Grinberg, M. Frégnaux, E. Dumas, N. Menguy, A. Ramanthrikkovil V., I. Shere, N. Amdursky, N. Steunou, G. Maurin, Y. Paz **Journal of Photochemistry and Photobiology A: Chemistry** (2026), 472, 116738 [link](#)

-2- “Photoaccumulation of Long-Lived Reactive Electrons in a Microporous Ti (IV) Oxocluster-Based Metal–Organic Framework for Light and Dark Photocatalysis.” S. Yao, K. Heinzerling, S. AJ Hillman, F. Podjaski, T. He, A. García-Baldoví, Y. Baghdadi, K. Dassouki, H. García, S. Eslava, N. Steunou, S. Gonzalez-Carrero, S. Navalón, G. Mouchaham, C. Serre, J. R. Durrant , **Advanced Materials** (2026), 38, e17595, [Link](#)

-3- “High-performance mixed matrix membranes with very-high ZIF-8 loading for efficient CO₂ capture.” C. Arnal-Herault, T. Arzoumanian, M. Valentina V. Rueda, B. Belaissaoui, M. Ponçot, N. Steunou, S. Biswas, E. Espuche, A. Jonquieres, **Polymer** (2025), 336, 128858. [Link](#)

-4- “Tailoring the Dynamics of Al Metal–Organic Framework Nanocrystals: From Rigid Nanoparticles to Flexible Nanowires.” A. Saad, F. Gobeaux, V. Bon, S. Plana-Ruiz, C. Sicard, M. Frégnaux, S. Dasgupta, S. Biswas, K. Dassouki, B. Baptiste, S. Canossa, S. Kaskel, N. Menguy, N. Guillou, N. Steunou, **ACS Applied Materials & Interfaces** (2025), 17, 47355–47367. [Link](#)

-5- “Detoxification of Chemical Warfare Agents at Physiological pH Using UiO-66 (Zr)/Gelatin Hydrogel Composite,” S. Biswas, R. Gay, J. Bzdrenga, T. Soiro, X. Brazzolotto, P.-Y. Renard, J. Legros, A. Urvoas, H. Salmi, N. Steunou, J.-P. Mahy, R. Ricoux, **ACS Applied Nano Materials**, (2025), 8, 10264-10274. [Link](#)

-6- “Metal-Organic Frameworks for the Therapy of Inflammatory Diseases.” H. Zhao, C. Serre, N. Steunou, **Advanced Healthcare Materials** (2025), 14, 2404334. [Link](#)

-7- “Byne's decay on microscopic calcareous shells: case study of Alcide d'Orbigny's foraminifera collections stored in Paris and La Rochelle, France.” C. Hairie, M.-B. Forel, A. Bartolini, C. Müller, N. Steunou, V. Rouchon ? **Geodiversitas** (2025), 47, 659-685. [Link](#)

-8- “Screening of Aluminum-Based MOFs for Effective In Situ Immobilization of Biomolecules.” I. Christodoulou, E. Gkaniatsou, N. Steunou, A. Kisserli, J. HM Cohen, M. Haouas, C. Sicard, **Inorganic Chemistry** (2024), 64, 2545-2553. [Link](#)

-9- “Detoxification of Chemical Warfare Agents by a Zr-Based MOF with High Recycling Ability at Physiological pH,” S. Biswas, R. Gay, J. Bzdrenga, T. Soiro, N. Belverge, N. Taudon, X. Brazzolotto, M. Haouas, N. Steunou, J.-P. Mahy, R. Ricoux, **ChemNanoMat** (2024), 10, e202400132. [Link](#)

- 10- “MOF-based sensors for the detection of airborne α -pinene” P. Pires Conti, P. Iacomì, P. F. Brântuas, M. Nicolas, R. Anton, S. Moularat, S. Dasgupta, N. Steunou, G. Maurin, S. Devautour-Vinot **RSC Applied Interfaces**, (2024), 1, 1166-1173.[Link](#)
- 11- “A gold nanocluster/MIL-100 (Fe) bimodal nanovector for the therapy of inflammatory disease through attenuation of Toll-like receptor signaling” H. Zhao, S. Becharef, E. Dumas, F. Carn, G. Patriarche, S. Mura, F. Gazeau, C. Serre, N. Steunou, **Nanoscale**, (2024), 16, 12037-12049.[Link](#)
- 12- “Hierarchical superparamagnetic metal–organic framework nanovectors as anti-inflammatory nanomedicines.” H. Zhao, S. Sene, A. M Mielcarek, S. Miraux, N. Menguy, D. Ihiawakrim, O. Ersen, C. Péchoux, N. Guillou, J. Scola, J.-M. Grenèche, F. Nouar, S. Mura, F. Carn, F. Gazeau, E. Dumas, C. Serre, N. Steunou, **Journal of Materials Chemistry B**, (2023), 11, 3195-3211.[Link](#)
- 13- “Metal–organic frameworks for the capture of α -pinene traces.” P. P. Conti, K. Batra, P. Iacomì, C. Vieira Soares, S. Dasgupta, N. Steunou, A. Lattuati-Derieux, N. Timbart, M. Nicolas, R. Anton, S. Moularat, G. Maurin, S. Devautour-Vinot, **Chemical Communications**, (2023), 59, 7064-7067 .[Link](#)
- 14- “Interfacing metal organic frameworks with polymers or carbon-based materials: from simple to hierarchical porous and nanostructured composites.” K. Dassouki, S. Dasgupta, E. Dumas, N. Steunou, **Chemical Science**, (2023), 14, 12898-12925.[Link](#)
- 15- “Encapsulation of Microperoxidase-8 into MIL-101(Cr/Fe) Nanoparticles: A New Biocatalyst for the Epoxidation of Styrene.” X. Kesse, C. Sicard, N. Steunou, J.-P. Mahy, R. Ricoux, **European Journal of Inorganic Chemistry**, (2023), 26, e202300040 [Link](#)
- 16- “In Operando Spectroscopic Ellipsometry Investigation of MOF Thin Films for the Selective Capture of Acetic Acid.” S. Dasgupta, S. Biswas, K. Dedecker, E. Dumas, N. Menguy, B. Berini, B. Lavedrine, C. Serre, C. Boissière, N. Steunou. **ACS Applied Materials Interfaces**, (2023), 15, 6069-6078.[Link](#)
- 17- “In Situ Synthesis of a Mesoporous MIL-100(Fe) Bacteria Exoskeleton.” A. Permyakova, A. Kakar, J. Bachir, E. Gkaniatsou, B. Haye, N. Menguy, F. Nouar, C. Serre, N. Steunou, T. Coradin, F. M Fernandes, C. Sicard, **ACS Materials Letters**, 5, (2023), 79–84.[Link](#)
- 18- “Les émissions odoriférantes des matières noires de l’Égypte ancienne : quels enjeux ? ” S. Dasgupta, E. Dumas, N. Steunou, C. Boissière, J. Rémy, I. Colson, A. Lattuati-Derieux, N. Timbart, **Techné**, 56, (2023), 26-33
- 19- “Efficient capture of odorous organic compounds emitted from Egyptian mummies by metal-organic frameworks: A challenging new conservation approach.” I. Colson, S. Dasgupta, S. Devautour-Vinot, A. Lattuati-Derieux, P. Pires-Conti, N. Steunou, N. Timbart, **ICOM CC Valencia 2023**, Sep 2023, Valencia (Espagne), Spain.
- 20- “A robust eco-compatible microporous iron coordination polymer for CO₂ capture.” M. Benzaqui, M. Wahiduzzaman, H. Zhao, Md R. Hasan, T. Steenhaut, A. Saad, J. Marrot, P. Normand, J.-M. Grenèche, N. Heymans, G. De Weireld, A. Tissot, W. Shepard, Y. Filinchuk, S. Hermans, F. Carn, M. Manlankowska, C. Tellez, J. Coronas, G. Maurin, N. Steunou, C. Serre, **Journal of Materials Chemistry A**, 10, (2022), 8535–8545.[Link](#)
- 21- “MIL-101(Cr) MOF as an Effective Siloxane Sensor.” P. Iacomì, E. Gulcay-Ozcan, P. Pires Conti, S. Biswas, N. Steunou, G. Maurin, G. Rioland, S. Devautour-Vinot. **ACS Applied Materials Interfaces**, 14, (2022), 17531–17538.[Link](#)

- 22- "Growth of Fe-BDC Metal-Organic Frameworks onto Functionalized Si (111) Surfaces." H. Yuan, W. Fu, N. Soulimi, C. Serre, N. Steunou, M. Rosso, C. Henry de Villeneuve, **Chemistry An Asian Journal**, 17, (2022), e202200129.[Link](#)
- 23- "Engineering of Metal–Organic Frameworks/Gelatin Hydrogel Composites Mediated by the Coacervation Process for the Capture of Acetic Acid." S. Biswas, M. Haouas, C. Freitas, C. Vieira Soares, A. Al Mohtar, A. Saad, H. Zhao, G. Mouchaham, C. Livage, F. Carn, N. Menguy, G. Maurin, M. L. Pinto, N. Steunou. **Chemistry of Materials**, 34, (2022), 9760–9774.[Link](#)
- 24- "Optimization of MIL-178 (Fe) and Pebax® 3533 loading in mixed matrix membranes for CO₂ capture." Md R. Hasan, H. Zhao, N. Steunou, C. Serre, M. Malankowska, C. Téllez, J. Coronas, **International Journal of Greenhouse Gas Control**, 121, (2022), 103791.[Link](#)
- 25- "Metal–organic framework/graphene oxide composites for CO₂ capture by microwave swing adsorption." M. Muschi, S. Devautour-Vinot, D. Aureau, N. Heymans, S. Sene, R. Emmerich, A. Ploumistos, A. Geneste, N. Steunou, G. Patriarche, G. De Weireld, C. Serre. **Journal of Materials Chemistry A**, 9, (2021), 13135-13142.[Link](#)
- 26- "Metal–Organic Framework Based 1D Nanostructures and Their Superstructures: Synthesis, Microstructure, and Properties." A. Saad, S. Biswas, E. Gkaniatsou, C. Sicard, E. Dumas, N. Menguy, N. Steunou. **Chemistry of Materials**, 33, (2021), 5825–5849.[Link](#)
- 27- «Robust ionic liquid@MOF composite as a versatile superprotonic conductor." K. Taksande, E. Gkaniatsou, C. Simonnet-Jégat, C. Livage, G. Maurin, N. Steunou, S. Devautour-Vinot. **Dalton Transactions**, 50, (2021), 15914-15923.[Link](#)
- 28- "Design of stable mixed-metal MIL-101 (Cr/Fe) materials with enhanced catalytic activity for the Prins reaction." C. Vallés-García, E. Gkaniatsou, A. Santiago-Portillo, M. Giménez-Marqués, M. Álvaro, J.-M. Grenèche, N. Steunou, C. Sicard, S. Navalón, C. Serre, H. García. **Journal of Materials Chemistry A**, 8, (2020), 17002-17011.[link](#)
- 29- "Encapsulation of Microperoxidase-8 in MIL-101 (Cr)-X Nanoparticles: Influence of Metal–Organic Framework Functionalization on Enzymatic Immobilization and Catalytic Activity." E. Gkaniatsou, R. Ricoux, K. Kariyawasam, I. Stenger, B. Fan, N. Ayoub, S. Salas, G. Patriarche, C. Serre, J.-P. Mahy, N. Steunou, C. Sicard. **ACS Applied Nano Materials**, 3, 4, (2020), 3233–3243.[link](#)
- 30- "Formation of Single Crystal Aluminum-based MOF Nanowire with Graphene Oxide Nanoscrolls as Structure-Directing Agents" M. Muschi, A. Lalitha, S. Sene, D. Aureau, M. Fregnaud, I. Esteve, L. Rivier, N. Ramsahye, S. Devautour-Vinot, C. Sicard, N. Menguy, C. Serre, G. Maurin, N. Steunou. **Angewandte Chemie International Edition**, 59, (2020), 10353-10358.[link](#)
- 31- "Covalent and Selective Grafting of Polyethylene Glycol Brushes at the Surface of ZIF-8 for the Processing of Membranes for Pervaporation." M. Benzaqui, R. Semino, F. Carn, S. Rodrigues Tavares, N. Menguy, M. Giménez-Marqués, E. Bellido, P. Horcajada, T. Berthelot, A. I. Kuzminova, M. E. Dmitrenko, A. V. Penkova, D. Roizard, C. Serre, G. Maurin, and N. Steunou, **ACS Sustainable Chemistry Engineering**, 7, (2019), 7, 6629–6639.[link](#)
- 32- "A new strontium bromide MOF composite with improved performance for solar energy storage application" P. D'Ans, E. Courbon, A. Permyakova, F. Nouar, C. Simonnet-Jégat, F. Bourdreux, L. Malet, C. Serre, M. Frère, N. Steunou, **Journal of Energy Storage** 25 (2019) 100881.[link](#)
- 33- "Enhancing microperoxidase activity and selectivity: immobilization in metal-organic frameworks." E. Gkaniatsou, C. Serre, J.-P. Mahy, N. Steunou, R. Ricoux, C. Sicard, **Journal of Porphyrins and Phthalocyanines** 23, (2019) 1–11.[link](#)

- 34- "Influence of Filler Pore Structure and Polymer on the Performance of MOF-Based Mixed-Matrix Membranes for CO₂ Capture." A. Sabetghadam, X. Liu, M. Benzaqui, E. Gkaniatsou, Angelica Orsi, M. M. Lozinska, C. Sicard, T. Johnson, N. Steunou, P. A. Wright, C. Serre, J. Gascon, F. Kapteijn. **Chemistry A European Journal** 24, (2018), 7949 - 7956.[link](#)
- 35- "A phase transformable ultrastable titanium-carboxylate framework for photoconduction." S. Wang, T. Kitao, N. Guillou, M. Wahiduzzaman, C. Martineau-Corcus, F. Nouar, A. Tissot, L. Binet, N. Ramsahye, S. Devautour-Vinot, S. Kitagawa, S. Seki, Y. Tsutsui, V. Briois, N. Steunou, G. Maurin, T. Uemura, C. Serre. **Nature Communications**, 9, (2018), 1660.[link](#)
- 36- "Fabrication of ultrathin MIL-96(Al) films and study of CO₂ adsorption/desorption processes using quartz crystal microbalance." M. A. Andrés, M. Benzaqui, C. Serre, N. Steunou, I. Gascón, **Journal of Colloid and Interface Science**, 519 (2018) 88–96.[link](#)
- 37- "A promising metal–organic framework (MOF), MIL-96 (Al), for CO₂ separation under humid conditions." V. Benoit, N. Chanut, R. S. Pillai, M. Benzaqui, I. Beurroies, S. Devautour-Vinot, C. Serre, N. Steunou, G. Maurin, P. L. Llewellyn. **Journal of Materials Chemistry A**, 6, (2018), 2081-2090.[link](#)
- 38- "Metal-Organic Frameworks for Cultural Heritage preservation: the case of acetic acid removal." K. Dedecker, R. S. Pillai, F. Nouar, J. Pires, N. Steunou, E. Dumas, G. Maurin, C. Serre, M. L. Pinto, **ACS Applied Materials & Interfaces**, 10, (2018), 13886-13894.[link](#)
- 39- "Enzyme Encapsulation in Mesoporous Metal–Organic Frameworks for Selective Biodegradation of Harmful Dye Molecules." E. Gkaniatsou, C. Sicard, R. Ricoux, L. Benahmed, F. Boudreux, Q. Zhang, C. Serre, J.-P. Mahy, N. Steunou. **Angewandte Chemie International Edition**, 57, (2018), 16141-16146.[link](#)
- 40- "Metal–organic frameworks: a novel host platform for enzymatic catalysis and detection." E. Gkaniatsou, C. Sicard, R. Ricoux, J.-P. Mahy, N. Steunou, C. Serre, **Materials Horizon**, 4 (2017), 55-63.[link](#)
- 41- "Synthesis optimization, shaping and heat reallocation evaluation of the hydrophilic Metal Organic Framework MIL-160(Al)." A. Permyakova, O. Skrylnyk, E. Courbon, M. Affram, S. Wang, U-H. Lee, A. H. Valekar, F. Nouar, G. Mouchaham, T. Devic, G. De Weireld, J.-S. Chang, N. Steunou, M. Frère, C. Serre. **ChemSusChem**, 10, (2017), 1419-1426. [link](#)
- 42- "A new composite sorbent based on SrBr₂ and silica gel for solar energy storage application with high energy storage density and stability." E. Courbon, P. D'Ans, A. Permyakova, O. Skrylnyk, N. Steunou, M. Degrez, M. Frère. **Applied Energy**, 190, (2017), 1184-1194.[link](#)
- 43- "Titanium coordination compounds: from discrete metal complexes to metal–organic frameworks." H. Assi, G. Mouchaham, N. Steunou, T. Devic, C. Serre, **Chemical Society Reviews**, 46, (2017), 3431-3452.[link](#)
- 44- "Design of salt–metal organic framework composites for seasonal heat storage applications." A. Permyakova, S. Wang, E. Courbon, F. Nouar, N. Heymans, P. D'Ans, N. Barrier, P. Billemont, G. De Weireld, N. Steunou, M. Frère, C. Serre. **Journal of Materials Chemistry A**, Hot Paper, 5, (2017), 12889-12898.[link](#)
- 45- "Maghemite-nanoMIL-100(Fe) bimodal nanovector as a new platform for image-guided therapy." S. Sene, M. T. Marcos-Almaraz, N. Menguy, J. Scola, J. Volatron, R. Rouland, J.-M. Grenèche, S. Miraux, C. Menet, N. Guillou, F. Gazeau, C. Serre, P. Horcajada, N. Steunou. **Chem**, 3, (2017), 303-322. [link](#)
- 46- "Further improvement of the synthesis of silica gel and CaCl₂ composites: Enhancement of energy storage density and stability over cycles for solar heat storage coupled with space heating applications." E. Courbon, P. D'Ans, A. Permyakova, O. Skrylnyk, N. Steunou, M. Degrez, M. Frère. **Solar Energy**, 157, (2017), 532–541.[link](#)

- 47- "Highly Efficient Proton Conduction in a Three-Dimensional Titanium Hydrogen Phosphate." P. G. M. Mileo, T. Kundu, R. Semino, V. Benoit, N. Steunou, P. L. Llewellyn, C. Serre, G. Maurin, S. Devautour-Vinot. **Chemistry of Materials** 29, (2017), 7263–7271.[link](#)
- 48- "Revisiting the Case of the Microporous Aluminum Trimesate-based MOF (MIL-96): from Structure Determination and Synthesis of Nanoparticles to the Processing of Mixed Matrix Membranes for CO₂ Capture." M. Benzaqui, R. S Pillai, A. Sabetghadam, V. Benoit, P. Normand, J. Marrot, N. Menguy, D. Montero, W. Shepard, A. Tissot, C. Martineau-Corcoss, C. Sicard, M. Mihaylov, F. Carn, I. Beurroies, P. L. Llewellyn, G. De Weireld, K. Hadjiivanov, J. Gascon, F. Kapteijn, G. Maurin, N. Steunou, C. Serre. **Chemistry of Materials**, 29, (2017), 10326-10338.[link](#)
- 49- "Toward an Understanding of the Microstructure and Interfacial Properties of PIMs/ZIF-8 Mixed Matrix Membranes" M. Benzaqui, R. Semino, N. Menguy, F. Carn, T. Kundu, J. M. Guigner, N. B. McKeown, K. J. Msayib, M. Carta, E. Malpass-Evans, C. LeGuillouzer, G. Clet, N. A. Ramsahye, C. Serre, G. Maurin, N. Steunou. **ACS Applied Materials Interfaces**, 8, (2016), 27311-27321.[link](#)
- 50- "Synthesis of the biocompatible and highly stable MIL-127(Fe): from large scale synthesis to particle size control." H. Chevreau, A. Permyakova, F. Nouar, P. Fabry, C. Livage, F. Ragon, A. Garcia-Marquez, T. Devic, N. Steunou, C. Serre, P. Horcajada. **CrystEngComm**, 18, (2016), 4094-4101.[link](#)
- 51- "Investigations into the Immobilization of a Single-Molecule Magnet Polyoxometalate in Metal Organic Framework and Biopolymer Matrices." W. Salomon, Y. Lan, E. Rivière, S. Yang, C. Roch-Marchal, P. Mialane, C. Simonnet-Jégat, N. Steunou, N. Leclerc-Laronze, L. Ruhlmann, T. Mallah, W. Wernsdorfer, A. Dolbecq. **Chemistry a European Journal**, 22, (2016), 6564-6574.[link](#)
- 52- "Design of Laccase-Metal Organic Framework-Based Bioelectrodes for Biocatalytic Oxygen Reduction Reaction." S. Patra, S. Sene, C. Mousty, C. Serre, A. Chaussé, L. Legrand, N. Steunou. **ACS Applied Materials Interfaces**, 8, (2016), 20012-20022.[link](#)
- 53- "Supramolecular Assembly of Gelatin and Inorganic Polyanions: Fine-Tuning the Mechanical Properties of Nanocomposites by Varying Their Composition and Microstructure." I. Baroudi, C. Simonnet-Jégat, C. Roch-Marchal, N. Leclerc-Laronze, C. Livage, C. Martineau, C. Gervais, E. Cadot, F. Carn, B. Fayolle, N. Steunou. **Chemistry of Materials**, 27, (2015), 1452–1464.[link](#)
- 54- Review article. "Rational design of one-dimensional vanadium(V) oxide nanocrystals: an insight into the physicochemical parameters controlling the crystal structure, morphology and size of particles." N. Steunou, J. Livage. **CrystEngComm**, 17, (2015), 6780-6795. [link](#)
- 55- "Design of metal organic framework–enzyme based bioelectrodes as a novel and highly sensitive biosensing platform." S. Patra, T. Hidalgo Crespo, A. Permyakova, C. Sicard, C. Serre, A. Chaussé, N. Steunou, L. Legrand. **Journal of Materials Chemistry B**, 3, (2015), 8983-8992.[link](#)
- 56- "Interfacing a heteropolytungstate complex and gelatin through a coacervation process: design of bionanocomposite films as novel electrocatalysts." B. Khadro, I. Baroudi, A.-M. Goncalves, B. Berini, B. Pegot, F. Nouar, H. Ngoc, F. Ribot, C. Gervais, F. Carn, E. Cadot, C. Mousty, C. Simonnet-Jégat, N. Steunou. **Journal of Materials Chemistry A**, 2, (2014), 9208-9220. [link](#)
- 57- "Quantitative Analysis of the Proximities of OH Ligands and Vanadium Sites in a Polyoxovanadate Cluster Using Frequency-Selective H-1-V-51 Solid-State NMR Spectroscopy." F. Pourpoint, J. Trébosc, C. Bonhomme, O. Durupthy, N. Steunou, O. Lafon, J.-P. Amoureux. **Journal of Physical Chemistry C**, 118, (2014), 18580–18588.[link](#)
- 58- "A biocompatible calcium bisphosphonate coordination polymer: towards a metal-linker synergistic therapeutic effect?" E. Alvarez, A. Garcia Marquez, T. Devic, N. Steunou, C. Serre, C. Bonhomme, C. Gervais, I.

- Izquierdo-Barba, M. Vallet-Regi, D. Laurencin, F. Mauri, P. Horcajada. *CrystEngComm*, 15, (2013), 9899-9905. [link](#)
- 59- "A rare example of a porous Ca-MOF for the controlled release of biologically active NO." S. R. Miller, E. Alvarez, L. Fradcourt, T. Devic, S. Wuttke, P. S. Wheatley, N. Steunou, C. Bonhomme, C. Gervais, D. Laurencin, R. E. Morris, A. Vimont, M. Daturi, P. Horcajada, C. Serre. *Chemical Communications*, 49, (2013), 7773-7775. [link](#)
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