

2024

- Sci. Total. Environ. *Assessing the chronic effect of the bioavailable fractions of radionuclides and heavy metals on stream microbial communities: A case study at the Rophin mining site.* C. Mallet, F. Rossi, Y. Hassan-Loni, G. Holub, T.H.H. Le, O. Diez, H. Michel, C. Sergeant, S. Kolovi, P. Chardon, G. Montavon, (2024), **919**, 170692.
- Env. Res. *Uranium contamination of bivalve *Mytilus galloprovincialis*, speciation and localization* R. Stefanelli, M. R. Beccia, P. L. Solari, D. Suhard, S. Pagnotta, A. Jeanson, J. U. Mullot, F. Vernier, C. Moulin, M. Monfort, J. Aupiais, C. Den Auwer, (2024), **252**, 118877-118888.
- Sci. Total. Environ. *When radiochemistry meets radioecology (the marine environment)* J. Aupiais, M.R. Beccia, M. Monfort, C. Den Auwer, (2024), **935**, 173247.
- Sci. Rep. *Exploring uranium bioaccumulation in the brown alga *Ascophyllum nodosum*: insights from multi-scale spectroscopy and imaging* M. Zerbini, P.L. Solari, F. Orange, A. Jeanson, C. Leblanc, M. Gomari, C. Den Auwer, M.R. Beccia, (2024), **14**, 10121.

2023

- Chem. Eur. J. *Interaction Between the Transferrin Protein and Plutonium (and Thorium), What's New?* C. Zurita, S. Tsushima, P. L. Solari, D. Menut, S. Dourdain, A. Jeanson, G. Creff, C. Den Auwer (2023), **29**, e202300636.
- Environ. Sci. Technol. *Uranium Speciation in a Chalky Soil*, S. Bayle, M. R. Beccia, C. Moulin, P. L. Solari, C. Den Auwer, P. Crançon (2023), **57**, 28, 10348–10360.
- Biosensors *Development of an Efficient FRET-Based Ratiometric Uranium Biosensor*, S. Sauge-Merle, M. Recuerda, M.R. Beccia, D. Lemaire, R. Cherif, N. Bremond, F. Merola, Y. Bousmah, C. Berthomieu (2023), **13**, 561.

2022

- Int. J. Molecular Sci. *Chelating Polymers for Targeted Decontamination of Actinides: Application of PEI-MP to Hydroxyapatite-Th(IV)*, J. Fèvre, E. Leveille, A. Jeanson, S. Santucci-Darmanin, V. Pierrefite-Carle, G. F. Carle, C. Den Auwer, C. Di Giorgio (2022), **23**, 4732.
- J. Phys. Chem. *A Coupled EXAFS–Molecular Dynamics Study on PuO^{2+} and NpO^{2+} Hydration: The Importance of Electron Correlation in Force-Field Building*, G. Raposo-Hernández, J. M. Martínez, R. R. Pappalardo, C. Den Auwer, E. Sánchez Marcos (2022), **61**, 8703–8714.
- ChemPlusChem. *Environmental Chemistry of Radionuclides : Open Questions and Perspectives*, M. R. Beccia, G. Creff, C. Den Auwer, C. Di Giorgio, A. Jeanson, H. Michel (2022), **87**, e202200108.
- ISME Journal *Discovery and characterization of UipA, a uranium and iron-binding PepSY protein involved in uranium tolerance in soil bacteria*, V. Chapon, N. Gallois, B. Alpha-Bazin, N. Bremond, P. Ortet, M. Barakat, L. Piette, A. Mohamad Ali, D. Lemaire, P. Legrand, N. Theodorakopoulos, M. Floriani, L. Fevrier, C. Den Auwer, P. Arnoux, C. Berthomieu, J. Armengaud (2022), **16**, 705–716
- Environ. Sci. Technol. *Accumulation and speciation of cobalt in *Paracentrotus lividus**, B. Reeves, M. R. Beccia, A. Jeanson, P. L. Solari, B. Siberchicot, C. Berthomieu, D. Marcellin, N. Bremond, T. Kerdikoshvili, H. Michel, L. Passeron Mangialajo, M. Monfort, C. Moulin, C. Den Auwer (2022), **56**, 3462–3470.
- Biomolecules *Inter-Site Cooperativity of Calmodulin N-Terminal Domain and Phosphorylation Synergistically Improve the Affinity and Selectivity for Uranyl*, M. R. Beccia, S. Sauge-Merle, N. Brémond, D. Lemaire, P. Henri, C. Battesti, P. Guilbaud, S. Crouzy, C. Berthomieu (2022), **12**, 1703.
- Inorg. Chem. *Optimized Coordination of Uranyl in Engineered Calmodulin Site 1 Provides a Subnanomolar Affinity for Uranyl and a Strong Uranyl versus Calcium Selectivity.* R. Pardoux, S. Sauge-Merle, N. Brémond, M. R. Beccia, D. Lemaire, C. Battesti, P. Delange, P. L. Solari, P. Guilbaud, C. Berthomieu (2022), **61**, 50, 20480–20492.

2021

- Chem. Eur. J. *A 70-year-old Mystery in Technetium Chemistry Explained by the New Technetium Polyoxometalate [H7O3]4[Tc20O68]·4H2O*, K. E. German, A. M. Fedoseev, M. S. Grigoriev, G. A. Kirakosyan, T. Dumas, C. Den Auwer, P. Moisy, K. V. Lawler, P. M. Forster, F. Poineau, (2021), **27**, 13624-13631.
- J. Synch. Rad. *Interaction of Th(IV), Pu(IV) and iron(III) with ferritin protein : how similar ?* C. Zurita, S. Tsushima, P-L. Solari, A. Jeanson, G. Creff, C. Den Auwer (2021), OK5058
- Inorg. Chem. *Structural and Thermodynamics Studies on Polyaminophosphonate Ligands for Uranyl Decorporation*. G. Ye, J. Roques, P. L. Solari, C. Den Auwer, A. Jeanson, J. Brandel, L. J. Charbonnière, W. Wu, E. Simoni (2021), **60**, 2149-2159.
- Arch. Tox. *Low dose of uranium and osteoclastic bone resorption : key reciprocal effects evidenced using new in vitro biomimetic models of bone matrix*, T. Gritsaenko, V. Pierrefite-Carle, G. Creff, B. Simoneau, A. Hagège, D. Farlay, S. Pagnotta, F. Orange, X. Jaurand, C. Den Auwer, G. F. Carle, S. Santucci-Darmanin, (2021), **95**, 1023-1037.
- Dalton Trans. *Ultrasonically assisted conversion of uranium trioxide into uranium(VI) intrinsic colloids*, M. Cot-Auriol, M. Viro, C. Micheau, T. Dumas, X. Le Goff, C. Den Auwer, O. Diat, P. Moisy, S. I. Nikitenko (2021), **50**, 11498-11511.

2020

- Inorg. Chem. *Carboxylate- and Phosphonate-Modified Polyethylenimine: Toward the Design of Actinide Decorporation Agents*, F. Lahrouch, B. Siberchicot, J. Fèvre, L. Leost, J. Aupiais, P-L. Solari, C. Den Auwer, C. Di Giorgio (2020), **59**, 128-137.
- Energy Rep. *Comparative analysis of the perception of nuclear risk in two populations (expert/non-expert) in France*, S. Perez, C. Den Auwer, T. Pourcher, S. Russo, C. Drouot, M. R. Beccia, G. Creff, F. Fiorelli, A. Leriche, F. Castagnola, P. Steichen, G. Carle, H. Michel, N. Glaichenhaus, D. Josse, N. Pottier, D. Provitolo (2020), **6**, 2288-2298.
- Chem. Eur. J. *How does iron storage protein ferritin interact with plutonium (and thorium)?*, C. Zurita, S. Tsushima, C. Bresson, M. Garcia Cortes, P. L. Solari, A. Jeanson, G. Creff, C. Den Auwer (2020), **27**, 2393-2401.
- Nanomedicine *RGD-functionalized magnetosomes are efficient tumor radioenhancers for X-rays and protons*, M. Hafsi, S. Preveral, C. Hoog, J. Hérault, G. Adryanczyk, C. T. Lefèvre, H. Michel, D. Pignol, J. Doyen, T. Pourcher, O. Humbert, J. Thariat, B. Cambien (2020), **23**, 102084.

2019

- ACS Omega *Interdisciplinary Round-Robin Test on Molecular Spectroscopy of the U(VI) Acetate System*, K. Müller, H. Foerstendorf, R. Steudtner, S. Tsushima, M. U. Kumke, G. Lefevre, J. Rothe, H. Mason, Z. Szabo, P. Yang, C. K. Adam, R. Andre, K. Brennenstuhl, I. Chiorescu, H. M. Cho, G. Creff, F. Coppin, K. Dardenne, C. Den Auwer, B. Drobot, S. Eidner, N. J. Hess, P. Kaden, A. Kremlva, J. Kretschmar, S. Krüger, J. A. Platts, P. J. Panak, R. Polly, B. A. Powell, T. Rabung, R. Redon, P. E. Reiller, N. Rösch, A. Rossberg, A. C. Scheinost, B. Schimmelpfennig, G. Schreckenbach, A. Skerencak-Frech, V. Sladkov, P. Lorenzo Solari, Z. Wang, N. M. Washton, X. Zhang (2019), **4-5**, 8167-8177.
- Toxicological Sci. *Uranium Effect on Osteocytic Cells In Vitro*, L. Hurault, G. Creff, A. Hagège, S. Santucci-Darmanin, S. Pagnotta, D. Farlay, C. Den Auwer, V. Pierrefite-Carle, G. F. Carle (2019), **170**, 199-209.
- Mol. Phys. *Revisiting the cobalt(II) hydration from molecular dynamics and X-ray absorption spectroscopy*, D. Z. Caralampio, B. Reeves, M. R. Beccia, J. M. Martínez, R. R. Pappalardo, C. Den Auwer, E. Sánchez Marcos (2019), **117**,

3320-3328.

- Radiochim. Acta *What do we know about actinides-protein interactions?*, G. Creff, C. Zurita, A. Jeanson, G. Carle, C. Vidaud, C. Den Auwer, (2019), **107**, 993-1009.

- Radiochim. Acta *Protactinium(V) in aqueous solution: a light actinide without actinyl moiety*, C. Le Naour, J. Roques, C. Den Auwer, P. Moisy, J. Aupiais (2019), **107**, 979-991.

- Chem. Eur. J. *How Do Actinyls Interact with Hyperphosphorylated Yolk Protein Phosvitin?* S. Kumar, G. Creff, C. Hennig, A. Rossberg, R. Steudtner, J. Raff, C. Vidaud, F. R. Oberhaensli, M-Y. Dechraoui Bottein, C. Den Auwer (2019), **25**, 12332-12341.

- Environ Sci. Technol. *Uranium uptake in Paracentrotus lividus sea urchin, accumulation and speciation*. B. Reeves, M.R. Beccia, P.L. Solari, D.E. Smiles, D.K. Shuh, L. Mangialajo, S. Pagnotta, M. Monfort, C. Moulin, C. Den Auwer (2019), **53(14)**, 7974-7983.

- J. Env. Rad. *²¹⁰Po sequential extraction applied to wetland soils at uranium mining sites*, THH Le, H Michel, J Champion, (2019) **199-200**, 1-6.

- Metallomics *Is hydroxypyridonate 3,4,3-LI(1,2-HOPO) a good competitor of fetuin for uranyl metabolism?* A. Younes, G. Creff, M. R. Beccia, P. Moisy, J. Roques, J. Aupiais, C. Hennig, P. L. Solari, C. Den Auwer, C. Vidaud (2019), **11**, 496-507.

2018

- ChemComm. *Electronic structure of f-element Prussian Blue analogs determined by soft X-ray absorption spectroscopy*, T. Dumas, D. Guillaumont, P. Moisy, D. K Shuh, T. Tyliczak, P. Lorenzo Solari, C. Den Auwer (2018), **54**, 12206-12209.

- ChemComm. *Polyethyleneimine Methylenecarboxylate: a macromolecular DTPA analogue to chelate plutonium(IV)*, F. Lahrouch, B. Siberchicot, L. Leost, J. Aupiais, A. Rossberg, C. Hennig, C. Den Auwer, C. Di Giorgio (2018), **54**, 11705-11708

- Chem. Select *Experimental Speciation of Plutonium(IV) in Natural Seawater*, T. Dumas, M. Guigue, P. Moisy, R. Colina-Ruiz, J. Mustre de Leon, M. Matara-Aho, P.L. Solari, M. Monfort, C. Moulin, M.R. Beccia, C. Den Auwer, (2018), **3** (7), 2021-2024.

- New J. Chem. *Focus on speciation assessment in marine radiochemistry using X-ray absorption spectroscopy*, M. R. Beccia, P.L. Solari, M. Monfort, C. Moulin, C. Den Auwer, (2018), **42** (10), 7582-7591.

- J. Vis. Exp., *Methods for Analyzing the Impacts of Natural Uranium on In Vitro Osteoclastogenesis*. T. Gritsaenko, V. Pierrefite-Carle, G. Creff, C. Vidaud, G. Carle, S. Santucci-Darmanin, (2018), 131, e56499, doi:10.3791/56499

- Dalton Trans. *Towards the development of chitosan nanoparticles for plutonium pulmonary decorporation*, L. Léost, J. Roques, A. Van Der Meeren, L. Vincent, N. Sbirrazzuoli, C. Hennig, A. Rossberg, J. Aupiais, S. Pagnotta, C. Den Auwer, C. Di Giorgio, (2018), **47**, 11605–11618.

2017

- Inorg. Chem. *A Combined Spectroscopic/Molecular Dynamic Study for Investigating a Methyl-Carboxylated PEI as a Potential Uranium Decorporation Agent* F. Lahrouch, A-C. Chamayou, G; Creff, M. Duvail, C. Hennig, M-J. Lozano Rodriguez, C. Den Auwer, C. Di Giorgio, (2017), **56** (3), 1300–1308.

- New J. Chem. *Structural and thermodynamic investigation of AnIVLI(O)HOPO*, J. Aupiais, A. Younes, P. Moisy, C. Hennig, A. Rossberg, B. Brunel, M. Kerbaa, C. Vidaud, C. Den Auwer (2017), **41**, 11291-11298.

- Arch. Tox. *Effect of natural uranium on the UMR-106 osteoblastic cell line: impairment of the autophagic process as an underlying mechanism of uranium toxicity*, V. Pierrefite-Carle, S. Santucci-Darmanin, V. Breuil, T. Gritsaenko, C. Vidaud, G. Creff, P. L. Solari, S. Pagnotta, R. Al-Sahlane, C. Den Auwer, G. F. Carle (2017), **91**, 1903-1914.
- Dalton Trans. *Polyethyleneimine methylphosphonate: towards the design of a new class of macromolecular actinide chelating agents in the case of human exposition*, F. Lahrouch, O. Sofronov, G. Creff, A. Rossberg, C. Hennig, C. Den Auwer, C. Di Giorgio, (2017), **46**, 13869-13877.
- Chem. Eur. J., *Cyclic phosphopeptides to rationalize the role of phosphoamino acids in uranyl binding to biological targets*, M. Starck, F.A. Laporte, S. Oros, N. Sisommay, V. Gathu, P.L. Solari, G.Creff, J. Roques, C. DenAuwer, C. Lebrun, P. Delangle, (2017), **23**, 5281-5290.
- J. Env. Rad. *New insight into the ternary complexes of uranyl carbonate in seawater*, M. R. Beccia, M. Matara-Aho, B. Reeves, J. Roques, P.L. Solari, M. Monfort, C. Moulin, C. Den Auwer (2017), **178-179**, 343-348.
- Colloids Surf. A *Perylene bisimide metal complexes as new MWCNTs dispersants: Role of the metal ion in stability and temperature sensing*, F. Criscitiello, A. Scigliano, R. Bianco, M. R. Beccia, T. Biver, A. Pucci (2017), **516**, 32-38.
- Inorg. Chem. *Copper Complexes as Bioinspired Models for Lytic Polysaccharide Monooxygenases*, A. Concia, M. R. Beccia, M. Orio, F. Terra Ferre, M. Scarpellini, F. Biaso, B. Guigliarelli, M. Réglie, J. Simaan, (2017), **56** (3), 1023-1026.

2016

- Dalton Trans. *On the use of speciation techniques and ab initio modelling to understand tetravalent actinide behavior in biological medium: AnIVDTPA case* J. Aupiais, L. Bonin, C. Den Auwer, P. Moisy, B. Siberchicot and S. Topin (2016), **45**, 3759-3770.
- Phys. Chem. Chem. Phys. *The nature of chemical bonding in actinide and lanthanide ferrocyanides determined by X-ray absorption spectroscopy and density functional theory*, T. Dumas, D. Guillaumont, C. Fillaux, A. Scheinost, P. Moisy, S. Petit, D. K. Shuh, T. Tyliszczak, C. Den Auwer (2016) **18**, 2887-2895.
- Inorg. Chem. *Thermodynamic and Structural Investigation of Synthetic Actinide–Peptide Scaffolds*, S. Safi, A. Jeanson, J. Roques, P. Lorenzo Solari, F. Charnay-Pouget, C. Den Auwer, G. Creff, D. J. Aitken, E. Simoni (2016) **55**, 877-886.
- Environ Sci. Technol. *Silver accumulation in the green microalga *Coccomyxa actinabiotis*: toxicity, in situ speciation and localization investigated using synchrotron XAS, XRD and TEM*, T. Leonardo, E. Farhi, S. Pouget, S. Motellier, A-M. Boisson, D. Banerjee, F. Rebeille, C. Den Auwer, C. Rivasseau, (2016) **50**, 359-376.
- Inorg. Chem. *Actinide (IV) deposits on bone: potential role of the osteopontin-thorium complex*, G. Creff, S. Safi, J. Roques, H. Michel, A. Jeanson, P. L. Solari, C. Basset, E. Simoni, C. Vidaud, C. Den Auwer, (2016), **55**, 29-36.
- Environ Sci. Technol. *How do radionuclides accumulate in marine organisms? A case study of europium with *Aplysina cavernicola**, M. Maloubier, D. K. Shuh, S. G. Minasian, J. I. Pacold, P.-L. Solari, H. Michel, F. R. Oberhaensli, Y. Bottein, M. Monfort, C. Moulin, C. Den Auwer (2016), **50**, 10730-10738.
- Inorg. Chem. *Evidence of Trivalent Am Substitution into U3O8*, M. Caisso, P. Roussel, C. Den Auwer, S. Picart, C. Hennig, A. C. Scheinost, T. Delahaye, A. Ayrat (2016), **55**, 10438–10444.

2015

- Dalton Trans. *Speciation of americium in seawater and accumulation in marine sponge *Aplysina cavernicola**, M. Maloubier, H. Michel, P. Lorenzo Solari, P. Moisy, M-A. Tribalat, F. R. Oberhaensli, M. Y. Dechraoui Bottein, O. P. Thomas, M. Monfort, C. Moulin C. Den Auwer, (2015) **44**, 20584-20596.
- Inorg. Chem. *Coffinite, $USiO_4$, Is Abundant in Nature: So Why Is It So Difficult To Synthesize?*, S. Szenknect, A. Mesbah, T. Cordara, N. Clavier, C. Den Auwer, C. Poinssot, R. C. Ewing, N. Dacheux, ASAP articles (2015) **54**, 6687–6696.
- J. Phys. Chem. A *X-Ray Accelerated Photo-Oxidation of As(III) in Solution*, J. Canché-Tello, M. Vargas, J. Hernandez-

Cobos, I. Ortega-Blake, A. Leclercq, P-L. Solari, J. Lezama Pacheco, C. Den Auwer, J. Mustre de Leon (2015), **119**, 2829-2833.

- Dalton Trans. *XAS and TRLIF spectroscopies of uranium and neptunium in seawater*, M. Maloubier, P. Lorenzo Solari, P. Moisy, M. Monfort, C. Den Auwer, C. Moulin (2015), **44**, 5417-5427.

- J. Radioanal. Nuc. Chem. Behaviors and transfers of anthropogenic radionuclides (^{137}Cs , $^{239+240}\text{Pu}$ and ^{241}Am) in a protected alpine wetland (France), Amélie Leclercq, Hervé Michel, Violaine Philippini, Vittorio Barci & Geneviève Barci-Funel (2015), **303**, 719-732.

- J. Inorg. Biochem. *XAS examination of glutathione cobalt complexes in solution*, C. Bresson, R. Spezia, P-L. Solari, C. K. Jankowski, C. Den Auwer (2015), **142**, 126-131.