

Liste de publications de CHIM

Articles dans des revues avec comité de lecture

A paraître

Annibaleto, J., Jacob, C., Thilmany, P., Loison, A., Escorihuela, J., & Evano, G. (2024). Mechanistic Studies on the Gold-Catalyzed Intramolecular Hydroalkylation of Ynamides to Indenes. *ACS Omega*, 9. doi:10.1021/acsomega.4c09973

2025

Bigaj, A., Budroni, M., & Rongy, L. (2025). Exploring buoyancy-driven effects in chemo-hydrodynamic oscillations sustained by bimolecular reactions. *PCCP. Physical chemistry chemical physics*, 27, 1008.

2024

Stergiou, Y., Perrakis, A., De Wit, A., & Schwarzenberger, K. (2024). Flow-driven pattern formation during coacervation of xanthan gum with a cationic surfactant. *PCCP. Physical chemistry chemical physics*, 10.1039/D4CP01055H.

Cacciani, P., Hermák, P., Vander Auwera, J., & Campargue, A. (2024). The ammonia absorption spectrum between 3900 and 6350 cm⁻¹: 15NH₃ contribution and a recommended list for natural ammonia. *Journal of quantitative spectroscopy & radiative transfer*, 329, 109148. doi:10.1016/j.jqsrt.2024.109148

Zhai, S., Jacob, D. D., Franco, B., Clarisse, L., Coheur, P., Shah, V. V., Bates, K. K., Lin, H., Dang, R., Sulprizio, M. P., Huey, L. G., Moore, F. A., Jaffe, D. D., & Liao, H. (2024). Transpacific Transport of Asian Peroxyacetyl Nitrate (PAN) Observed from Satellite: Implications for Ozone. *Environmental science & technology*. doi:10.1021/acs.est.4c01980

Carpentier, R., Testa, C., Pappalardo, A., Jabin, I., & Bartik, K. (2024). Binding of Bioactive Ammonium Ions in Water with a Cavity-Based Selectivity: Water Solubilization versus Micellar Incorporation. *Journal of organic chemistry*. doi:10.1021/acs.joc.4c02610

Venkateshvaran, D., Cervantes, M. T. R., Spalek, L. L., Hwang, K.-H., Pudzs, K., Rutkis, M., Schweicher, G., & Padilla-Longoria, P. (2024). Understanding the Thermoelectric Transport Properties of Organic Semiconductors through the Perspective of Polarons. *Advanced devices & instrumentation*, 5, a.0067. doi:10.34133/adi.0067

Suzuki, R. X., Arai, S., Masumo, T., Nagatsu, Y., & De Wit, A. (2024). Opposite effects of a reaction-driven viscosity decrease on miscible viscous fingering depending on the injection flow rate. *Journal of fluid mechanics*, 1001, A25.

Izumoto, S., Escala, D. M., Heyman, J., Le Borgne, T., & De Wit, A. (2024). Control of Chemical Waves by Fluid Stretching and Compression. *Physical review letters*, 133, 218001.

Negrojevic, L., Comolli, A., Brau, F., & De Wit, A. (2024). Frozen autocatalytic fronts in a radial flow. *Physical Review Research*, 6, L042044. doi:10.1103/PhysRevResearch.6.L042044

- Catalano, L., Sharma, R., Karothu, D. P., Saccone, M., Elishav, O., Chen, C., Juneja, N., Volpi, M., Jouclas, R., Chen, H.-Y., Liu, J., Liu, G., Gopi, E., Ruzié, C., Klimis, N., Kennedy, A. R., Vanderlick, K., McCulloch, I., Ruggiero, M. T., Naumov, P., Schweicher, G., Yaffe, O., & Geerts, Y. (2024). Toward On-Demand Polymorphic Transitions of Organic Crystals via Side Chain and Lattice Dynamics Engineering. *Journal of the American Chemical Society*, 146(46), 31911-31919. doi:10.1021/jacs.4c11289
- Gonzalez-Casal, S., Jouclas, R., Arbouch, I., Geerts, Y., van Dyck, C., Cornil, J., & Vuillaume, D. (2024). Thermoelectric Properties of Benzothieno-Benzothiophene Self-Assembled Monolayers in Molecular Junctions. *The Journal of Physical Chemistry Letters*, 15(46), 11593-11600. doi:10.1021/acs.jpcclett.4c02753
- Dang, R., Jacob, D., Zhai, S., Yang, L. H., Pendergrass, D. C., Coheur, P., Clarisse, L., Van Damme, M., Choi, J.-S., Park, J.-S., Liu, Z., Xie, P., & Liao, H. (2024). A Satellite-Based Indicator for Diagnosing Particulate Nitrate Sensitivity to Precursor Emissions: Application to East Asia, Europe, and North America. *Environmental science & technology*, 58(45), 20101-20113. doi:10.1021/acs.est.4c08082
- Franco, B., Clarisse, L., Van Damme, M., Hadji-Lazaro, J., Clerbaux, C., & Coheur, P. (2024). Satellite-Based Identification of Large Anthropogenic NMVOC Emission Sources. *Journal of Geophysical Research: Atmospheres*, 129(22). doi:10.1029/2024JD042047
- Torres Morillo, D., Bernal, M., & Ustarroz Troyano, J. (2024). Deciphering Spatially Resolved Electrochemical Nucleation and Growth Kinetics by Correlative Multimicroscopy. *Small methods*. doi:10.1002/smt.202401029
- Carpentier, R., Lavendomme, R., Colasson, B., Bartik, K., & Jabin, I. (2024). Development of a water-soluble ouroboros-like calix[6]arene-trisimidazole-based ligand for enhanced binding of zinc. *Dalton transactions*. doi:10.1039/D4DT03158J
- Schweicher, G., Das, S., Resel, R., & Geerts, Y. (2024). On the importance of crystal structures for organic thin film transistors. *Acta Crystallographica Section C Structural Chemistry*, 80(10), 601-611. doi:10.1107/S2053229624008283
- Sun, W., Tack, F., Clarisse, L., Schneider, R., Stavrakou, T., & Van Roozendael, M. (2024). Inferring Surface NO₂ Over Western Europe: A Machine Learning Approach With Uncertainty Quantification. *Journal of Geophysical Research: Atmospheres*, 129(20), e2023JD040676. doi:10.1029/2023JD040676
- Zeng, Z.-C., Franco, B., Clarisse, L., Lee, L., Qi, C., & Lu, F. (2024). Observing a Volatile Organic Compound From a Geostationary Infrared Sounder: HCOOH From FengYun-4B/GIIRS. *Journal of Geophysical Research: Atmospheres*, 129(19), e2024JD041352. doi:10.1029/2024JD041352
- Vandaele, A. C., Aoki, S., Bauduin, S., Daerden, F., Fedorova, A. A., Giuranna, M., Korablev, O., Lefèvre, F., Määttänen, A. A., Montmessin, F., Patel, M. R., Smith, M., Trompet, L., Viscardy, S., Willame, Y., & Yoshida, N. (2024). Composition and Chemistry of the Martian Atmosphere as Observed by Mars Express and ExoMars Trace Gas Orbiter. *Space science reviews*, 220(7), 75. doi:10.1007/s11214-024-01109-7

Zveny, J., Remy, A., Nickmilder, P., Delchambre, A., Nonclercq, A., Leclère, P., & Reniers, F. (2024). Evaluating Cold Atmospheric Plasma for Endoscope Decontamination: Feasibility and Impact Analysis on PTFE Surfaces. *Plasma medicine*, 14(2), 1-18.

Tetenoire, A., Omelchuk, A., Malytskyi, V., Jabin, I., Lepeintre, V., Bruylants, G., Luo, Y., Fihey, A., Kepenekian, M., & Lagrost, C. (2024). Multipodal Au–C grafting of calix[4]arene molecules on gold nanorods. *Chemical science*. doi:10.1039/D4SC02355B

Bistri, D., Arretche, I., Lessard, J. J., Zakoworotny, M., Vyas, S., Rongy, L., Gómez-Bombarelli, R., Moore, J. J., & Geubelle, P. (2024). A Mechanism-Based Reaction-Diffusion Model for Accelerated Discovery of Thermoset Resins Frontally Polymerized by Olefin Metathesis. *Journal of the American Chemical Society*, 146(31), 21877-21888. doi:10.1021/jacs.4c06527

Doneux, T., Sorgho, A., Soma, F., Rayee, Q., & Bougouma, M. (2024). Electrodeposition in deep eutectic solvents: the “obvious”, the “unexpected” and the “wonders”. *Molecules*, 29, 3439. doi:10.3390/molecules29143439

Lambert, S., Carpentier, R., Lepeintre, M., Testa, C., Pappalardo, A., Bartik, K., & Jabin, I. (2024). Development of a Cone Homooxacalix[3]arene-Based Fluorescent Chemosensor for the Selective Detection of Biogenic Ammonium Ions in Protic Solvents. *Journal of organic chemistry*. doi:10.1021/acs.joc.4c01249

Gregori, G., Doneux, T., & Lim, J. (2024). Preparation and characterization of ion-exchanged Ni-Na-#"-Al₂O₃ and Fe-Na-#"-Al₂O₃ solid electrolytes for applications in liquid metals. *Solid state sciences*, 154, 107630. doi:10.1016/j.solidstatesciences.2024.107630

Darvot, C., Gosselin, B., Martin, F., Patskovsky, S., Jabin, I., Bruylants, G., Trudel, D., & Meunier, M. (2024). Multiplexed immunolabelling of cancer using bioconjugated plasmonic gold-silver alloy nanoparticles. *Nanoscale Advances*. doi:https://doi.org/10.1039/D4NA00052H

Soma, F., Nguyen, V. T., Bougouma, M., Djorf, O., Buess Herman, C., & Doneux, T. (2024). Gold electrochemistry in the acidic choline chloride-oxalic acid deep eutectic solvent. *Electrochimica acta*, 498, 144660. doi:10.1016/j.electacta.2024.144660

Gicevičius, M., James, A. M., Reicht, L., McIntosh, N., Greco, A., Fijahi, L., Devaux, F., Mas-Torrent, M., Cornil, J., Geerts, Y., Zojer, E., Resel, R., & Sirringhaus, H. (2024). Impact of hydrophilic side chains on the thin film transistor performance of a benzothieno-benzothiophene derivative. *Materials Advances*, 5(15), 6285-6294. doi:10.1039/D4MA00594E

Doneux, T., & Bizzotto, D. (2024). Editorial overview: Sensors and biosensors (2023): Addressing the challenges in building and characterizing electrochemical sensors. *Current opinion in electrochemistry*, 46, 101517. doi:10.1016/j.coelec.2024.101517

Vander Steen, J., Luhmer, M., Buess Herman, C., & Doneux, T. (2024). Electrochemical behavior of furfural, a bio-based building block, in the [BMPyrr][NTf₂] ionic liquid. *Electrochimica acta*, 498, 144635. doi:10.1016/j.electacta.2024.144635

Simatos, D., Nikolka, M., Charmet, J., Spalek, L. L., Toprakcioglu, Z., Jacobs, I. E., Dimov, I. I., Schweicher, G., Lee, M. J., Fernández-Posada, C. C., Howe, D. J., Hakala, T. T., Roode, L. L., Pecunia, V., Sharp, T. H., Zhang, W., Alsufyani, M., McCulloch, I., Knowles, T. P. J., & Siringhaus, H. (2024). Electrolyte-gated organic field-effect transistors with high operational stability and lifetime in practical electrolytes. *SmartMat*, 5, e1291. doi:10.1002/smm2.1291

Ma, M., Li, Y., Godefroid, M., Gaigalas, G., Li, J., Biero, J., Chen, C. Y., Wang, J., & Jönsson, P. (2024). Natural Orbitals and Targeted Non-Orthogonal Orbital Sets for Atomic Hyperfine Structure Multiconfiguration Calculations †. *Atoms*, 12(6), 30. doi:10.3390/atoms12060030

Crippa, M., Guizzardi, D., Pagani, F., Schiavina, M., Melchiorri, M., Pisoni, E., Graziosi, F., Munteanu, M., Maes, J., Dijkstra, L., Van Damme, M., Clarisse, L., & Coheur, P. (2024). Insights into the spatial distribution of global, national, and subnational greenhouse gas emissions in the Emissions Database for Global Atmospheric Research (EDGAR v8.0). *Earth System Science Data*, 16(6), 2811-2830. doi:10.5194/essd-16-2811-2024

Fernandes, C., Franceschini, F., Smets, J., Deschaume, O., Rusli, N., Bartic, C., Ameloot, R., Baert, K., Ustarroz Troyano, J., & Taurino, I. (2024). A Fully-Bioresorbable Nanostructured Molybdenum Oxide-Based Electrode for Continuous Multi-Analyte Electrochemical Sensing. *Advanced Materials Interfaces*. doi:10.1002/admi.202400054

Stergiou, Y., Escala, D. M., Papp, P., Horváth, D., Hauser, M., Brau, F., De Wit, A., Tóth, Á., Eckert, K., & Schwarzenberger, K. (2024). Unraveling dispersion and buoyancy dynamics around radial A + B → C reaction fronts: microgravity experiments and numerical simulations. *npj Microgravity*, 10(1), 53. doi:10.1038/s41526-024-00390-8

Vernier, J. P., Aubry, T. T., Timmreck, C., Schmidt, A., Clarisse, L., Prata, F., Theys, N., Prata, A., Mann, G., Choi, H., Carn, S., Rigby, R., Loughlin, S. C., & Stevenson, J. A. (2024). The 2019 Raikoke eruption as a testbed used by the Volcano Response group for rapid assessment of volcanic atmospheric impacts. *Atmospheric chemistry and physics*, 24(10), 5765-5782. doi:10.5194/acp-24-5765-2024

Mets, T., Kurata, T., Ernits, K., Johansson, M. J. O., Craig, S., Evora, G. M., Buttress, J., Odai, R., Coppieters, T., Wallant, K., Nakamoto, J., Shyrokova, L., Egorov, A., Doering, C. R., Brodiazhenko, T., Laub, M. T., Tenson, T., Strahl, H., Martens, C., Harms, A., Garcia-Pino, A., Atkinson, G. C., & Haurlyuk, V. (2024). Mechanism of phage sensing and restriction by toxin-antitoxin-chaperone systems. *Cell Host & Microbe*. doi:10.1016/j.chom.2024.05.003

Fernandes, C., Loukopoulos, V., Smets, J., Franceschini, F., Deschaume, O., Bartic, C., Ameloot, R., Ustarroz Troyano, J., & Taurino, I. (2024). Unraveling the Potential of a Nanostructured Tungsten–Tungsten Oxide Thin Film Electrode as a Bioresorbable Multichemical Wound Healing Monitor. *Advanced Materials Technologies*, 9(10). doi:10.1002/admt.202302007

Reinaud, O., Nyssen, N., Abudayyeh, A., Zhurkin, F., Aoun, P., Višnjevac, A., Colasson, B., & Jabin, I. (2024). TMPA-based Cavitary Cobalt (II) Funnel Complexes. *European Journal of Inorganic Chemistry*. doi:10.1002/ejic.202400228

Jacob, C., Annibaleto, J., Peng, J., Bai, R., Maes, B. U. W., Lan, Y., & Evano, G. (2024). Rhodium-Catalyzed Direct ortho-Arylation of Anilines. *Angewandte Chemie International Edition in English*, 63, e202403553. doi:10.1002/anie.202403553

Gillet, J., Geerts, Y., Rongy, L., & De Decker, Y. (2024). Differences in enantiomeric diffusion can lead to selective chiral amplification. *Proceedings of the National Academy of Sciences of the United States of America*, 121(17), e2319770121. doi:10.1073/pnas.2319770121

Franco, B., Clarisse, L., Theys, N., Hadji-Lazaro, J., Clerbaux, C., & Coheur, P. (2024). Pyrogenic HONO seen from space: Insights from global IASI observations. *Atmospheric chemistry and physics*, 24(8), 4973-5007. doi:10.5194/acp-24-4973-2024

Bernal, M., Torres Morillo, D., Parapari, S. S., Bertolucci Coelho, L., Delfosse, S., #eh, M., Rožman, K. Ž., Šturm, S., & Ustarroz Troyano, J. (2024). A microscopic view on the electrochemical deposition and dissolution of Au with scanning electrochemical cell microscopy – Part II: potentiostatic dissolution and correlation with in-situ EC-TEM. *Electrochimica acta*, 144302. doi:10.1016/j.electacta.2024.144302

Boquet, V., Sauber, C., Beltran, R., Ferey, V., Rodier, F., Hansjacob, P., Theunissen, C., & Evano, G. (2024). Copper-Catalyzed Coupling between ortho-Haloanilines and Lactams/Amides: Synthesis of Benzimidazoles and Telmisartan. *Journal of organic chemistry*, 89, 5469-5479. doi:10.1021/acs.joc.3c02905

Ferrari, E., Pandolfi, L., Schweicher, G., Geerts, Y., Salzillo, T., Masino, M., & Venuti, E. (2024). Structural Order and Thermal Behavior of Ph-BTBT-10 Monolayer Phases. *The Journal of Physical Chemistry Part C: Nanomaterials and Interfaces*, 128(10), 4258-4264. doi:10.1021/acs.jpcc.3c07365

Gonze, D., & Dupont, G. (2024). Computational insights in cell physiology. *Frontiers in systems biology*, 4, 1335885.

Romero Campos, H. H., Dupont, G., & Gonzalez-Velez, V. (2024). STIM1 regulates pancreatic #-cell behaviour: A modelling study. *Biosystems*, 237, 105138. doi:10.1016/j.biosystems.2024.105138

Gonze, D. (2024). Coupling between the cell cycle and the circadian clock: Lessons from computational modelling and consequences for cancer chronotherapy. *Current opinion in systems biology*, 37, 100507. doi:10.1016/j.coisb.2024.100507

Gosselin, B., Bruylants, G., & Jabin, I. (2024). Tailored Ultrastable Core-Shell Au@Ag Nanoparticles for Enhanced Colorimetric Detection in Lateral Flow Assays. *ACS Applied Nano Materials*, 7(6), 6169-6177. doi:10.1021/acsanm.3c06070

Lepeintre, M., Champciaux, J., Colasson, B., & Jabin, I. (2024). Synthesis of C3v-Symmetrical 1,3,5-Tris-Protected Calix[6]arene-Based Molecular Platforms. *Journal of organic chemistry*, 89(6), 4210-4214. doi:10.1021/acs.joc.3c02790

Zongo, I., Bougouma, M., & Moucheron, C. (2024). Impact d'outils didactiques sur une sensibilisation écocitoyenne au tri des déchets plastiques selon les polymères. *Les cahiers de l'ACAREF*, Vol. 6 TOME 1, 78-105.

Bigaj, A., Upadhyay, V., & Rongy, L. (2024). Thermal effects on chemically induced Marangoni convection around $A + B \rightarrow C$ reaction fronts. *The Journal of Chemical Physics*, 160(6), 064705. doi:10.1063/5.0187785

Soro, L., Soma, F., Bougouma, M., Buess Herman, C., Parpal Gimenez, M., Ustarroz Troyano, J., & Doneux, T. (2024). Electrodeposition of tin, selenium and tin-selenium compound in the choline chloride-glycerol deep eutectic solvent. *Journal of solid state electrochemistry*, 28, 1509-1519. doi:10.1007/s10008-024-05807-8

Gerard, P., Guissart, C., & Evano, G. (2024). Copper-Catalyzed Direct alpha-Peroxidation of Nitrogen Heterocycles. *Arkivoc*, 5, 202312154. doi:10.24820/ark.5550190.p012.154

Zongo, I., Bougouma, M., & Moucheron, C. (2024). Évaluation des préconceptions liées à l'éducation à l'environnement et à la gestion des déchets comme prérequis à la formation des enseignants. *Collection Pluraxes/Mondes*, 2(4), 208-226.

Zongo, I., Bougouma, M., & Moucheron, C. (2024). Education environnementale : implémentation du tri des déchets plastiques en classe de première au Burkina Faso. *Revue LES TISONS (en ligne)*, Numéro spécial 1, 515-544.

James, A. M., Gicevičius, M., Hofer, S., Schrode, B., Werzer, O., Devaux, F., Geerts, Y., Sirringhaus, H., & Resel, R. (2024). Thin film crystallization of oligoethylene glycol-benzothieno benzothiophene: Physical vapor deposition versus spin coating. *Journal of crystal growth*, 627, 127539. doi:10.1016/j.jcrysgro.2023.127539

Yang, Y., Shtukenberg, A. G., Zhou, H., Ruzié, C., Geerts, Y., Lee, S. S., & Kahr, B. (2024). Coherence in Polycrystalline Thin Films of Twisted Molecular Crystals. *Chemistry of materials*, 36(2), 881-891. doi:10.1021/acs.chemmater.3c02740

Gatsios, C., Dreher, M., Amsalem, P., Opitz, A., Jouclas, R., Geerts, Y., Witte, G., & Koch, N. (2024). Two Isomeric Thienoacenes in Thin Films: Unveiling the Influence of Molecular Structure and Intermolecular Packing on Electronic Properties. *The Journal of Physical Chemistry Part C: Nanomaterials and Interfaces*, 128(49), 21228-21236. doi:10.1021/acs.jpcc.4c06741

Di Gioacchino, T., Clarisse, L., Noppen, L., Van Damme, M., Bauduin, S., & Coheur, P. (2024). Spatial and Temporal Variations of Thermal Contrast in the Planetary Boundary Layer. *Journal of Remote Sensing (United States)*, 28, 0142. doi:10.34133/remotesensing.0142

Evano, G., & Theunissen, C. (2024). Copper-(Photo)Catalyzed Radical Reactions with Organic Halides. *Synlett*, 35, 485-499. doi:DOI: 10.1055/a-2095-5242

Adaoudi, O., Le Bescont, J., Bruneau-Voisine, A., & Evano, G. (2024). Copper-Catalyzed Carbonylative Cross-Coupling of Alkyl Iodides with Alcohols and Sodium Hydroxide:

Synthesis of Esters and Carboxylic Acids. *Synthesis*, 56, 668-676. doi:10.1055/a-2042-3417

Fang, J., Van Laethem, S., Blanchard, N., & Evano, G. (2024). Ring-Closing Enyne Metathesis of Allylic and Propargylic Cyanamides. *Arkivoc*, 2, 202312098. doi:10.24820/ark.5550190.p012.098

Remy, A., Zveny, J., Serra, T., Lakhroufi, D., Bourgeois, A., Devière, J., Botteaux, A., Delchambre, A., Reniers, F., & Nonclercq, A. (2024). *Pseudomonas aeruginosa* biofilm decontamination and removal by Ar/H₂O cold atmospheric plasma in endoscope-like tubing. *Journal of physics. D, Applied physics*.

Gosselin, B., Retout, M., Jabin, I., & Bruylants, G. (2024). Development of a Peptide-based Lateral Flow Assay for the Detection of the Cancer Biomarker Mdm2. *Sensors & Diagnostics*, 3, 248-255. doi:10.1039/D3SD00253E

Moya, C., Brion, N., Troian-Gautier, L., Jabin, I., & Bruylants, G. (2024). Robust calix[4]arene-polyethyleneimine coated iron oxide nanoparticles for enhanced recovery of gold and platinum chloride complexes. *Environmental Science: Nano*. doi:10.1039/D4EN00408F

Lepeintre, V., Camerel, F., Lagrost, C., Retout, M., Bruylants, G., & Jabin, I. (2024). Calixarene-coated gold nanorods as robust photothermal agents. *Nanoscale*. doi:10.1039/D4NR02296C

Smiljanic, M., Bleteau, P., Papageorgiou, A., Goffart, N., Adam, C., & Doneux, T. (2024). Introducing common oxazine fluorophores as new redox labels for electrochemical DNA sensors. *Bioelectrochemistry*, 155, 108582. doi:10.1016/j.bioelechem.2023.108582

Gregori, G., Tsisar, V., Doneux, T., & Lim, J. (2024). Electrochemical and metallographic characterization of Ni-NiO-NiBi₃ equilibrium in molten lead-bismuth eutectic. *Journal of nuclear materials*, 589, 154866. doi:10.1016/j.jnucmat.2023.154866

2023

Generalis, S., De Wit, A., & Trevelyan, P. (2023). Exotic dynamics of bimolecular reaction-diffusion fronts in immiscible systems. *Applied mathematics letters*, 146, 108821. doi:10.1016/j.aml.2023.108821

De Longueville, H., Clarisse, L., Whitburn, S., Clerbaux, C., Lecomte, G., & Coheur, P. (2023). Atmospheric trends of long-lived halogenated gases derived from 15 years of IASI measurements. *Journal of quantitative spectroscopy & radiative transfer*, 311, 108755. doi:10.1016/j.jqsrt.2023.108755

Viatte, C., Guendouz, N., Dufaux, C., Hensen, A., Swart, D., Van Damme, M., Clarisse, L., Coheur, P., & Clerbaux, C. (2023). Measurement report: Ammonia in Paris derived from ground-based open-path and satellite observations. *Atmospheric chemistry and physics*, 23(24), 15253-15267. doi:10.5194/acp-23-15253-2023

Dang, R., Jacob, D. D., Zhai, S., Coheur, P., Clarisse, L., Van Damme, M., Pendergrass, D. C., Choi, J.-S., Park, J.-S., Liu, Z., & Liao, H. (2023). Diagnosing the Sensitivity of Particulate Nitrate to Precursor Emissions Using Satellite Observations of Ammonia

and Nitrogen Dioxide. *Geophysical research letters*, 50(24), e2023GL105761. doi:10.1029/2023GL105761

Torres Morillo, D., Bailly, J., Bernal, M., Bertolucci Coelho, L., & Ustarroz Troyano, J. (2023). Electrochemical nucleation and the role of the surface state: unraveling activity distributions with a cross-system examination and a local electrochemistry approach. *Journal of solid state electrochemistry*, 28(5), 1719-1734. doi:10.1007/s10008-023-05760-y

Bertolucci Coelho, L., Torres Morillo, D., Vangrunderbeek, V., Bernal, M., Paldino, G. M., Bontempi, G., & Ustarroz Troyano, J. (2023). Estimating pitting descriptors of 316 L stainless steel by machine learning and statistical analysis. *npj Materials degradation*, 7(1). doi:10.1038/s41529-023-00403-z

Bigaj, A., Budroni, M., Escala, D. M., & Rongy, L. (2023). Marangoni- vs buoyancy-driven flows: competition for spatio-temporal oscillations in $A + B \rightarrow C$ systems. *PCCP. Physical chemistry chemical physics*, 25, 11707. doi:10.1039/D3CP00637A

Chauvin, A., Bittencourt, C., Galais, M., Sauvage, L., Bellefroid, M., Van Lint, C., Op De Beeck, A., Snyders, R., & Reniers, F. (2023). Deposition of TiO_x and N-TiO_x by dielectric barrier discharge at atmospheric pressure. *Surface & coatings technology*.

Bense, H., Siefert, E., & Brau, F. (2023). Measurement of capillary forces using two fibers dynamically withdrawn from a liquid: Evidence for an enhanced Cheerios effect. *Physical review letters*. doi:10.1103/PhysRevLett.131.184003

Liu, J., Kabbadj, S., Liu, G., Silva De Moraes, L., Gbabode, G., Schweicher, G., Resel, R., & Geerts, Y. (2023). Accessing Selective Crystallization of ROY Polymorphs Using Directional Crystallization from the Melt. *Crystal growth & design*, 23(12), 8565-8574. doi:10.1021/acs.cgd.3c00595

Grosso, S., Mlynczak, M., Evano, G., & Riant, O. (2023). Copper-Catalyzed Cross-Coupling of Acylzirconocenes and Diaryliodonium Salts: An Efficient Synthesis of Alkyl-aryl-ketones from Alkenes. *European Journal of Organic Chemistry*, e202300938. doi:10.1002/ejoc.202300938

Clarisse, L., Franco, B., Van Damme, M., Di Gioacchino, T., Hadji-Lazaro, J., Whitburn, S., Noppen, L., Hurtmans, D., Clerbaux, C., & Coheur, P. (2023). The IASI NH₃ version 4 product: averaging kernels and improved consistency. *Atmospheric Measurement Techniques*, 16(21), 5009-5028. doi:10.5194/amt-16-5009-2023

Wang, R., Pan, D., Guo, X., Sun, K., Clarisse, L., Van Damme, M., Coheur, P., Clerbaux, C., Puchalski, M., & Zondlo, M. A. (2023). Bridging the spatial gaps of the Ammonia Monitoring Network using satellite ammonia measurements. *Atmospheric chemistry and physics*, 23(20), 13217-13234. doi:10.5194/acp-23-13217-2023

Abeed, R., Viatte, C., Porter, W. C., Evangelidou, N., Clerbaux, C., Clarisse, L., Van Damme, M., Coheur, P., & Safieddine, S. (2023). A roadmap to estimating agricultural ammonia volatilization over Europe using satellite observations and

simulation data. *Atmospheric chemistry and physics*, 23(19), 12505-12523. doi:10.5194/acp-23-12505-2023

Giannini, S., Di Virgilio, L., Bardini, M., Hausch, J., Geuchies, J., Zheng, W., Volpi, M., Elsner, J., Broch, K., Geerts, Y., Schreiber, F., Schweicher, G., Wang, H. I., Blumberger, J., Bonn, M., & Beljonne, D. (2023). Transiently delocalized states enhance hole mobility in organic molecular semiconductors. *Nature materials*, 22, 1361-1369. doi:10.1038/s41563-023-01664-4

Kumar, D., Zhou, N., Brau, F., Menon, N., & Davidovitch, B. (2023). Peeling from a liquid. *Soft matter*. doi:10.1039/d3sm00487b

Simatos, D., Jacobs, I. E., Dobryden, I., Nguyen, M., Savva, A., Venkateshvaran, D., Nikolka, M., Charmet, J., Spalek, L. L., Gicevičius, M., Zhang, Y., Schweicher, G., Howe, D. J., Ursel, S., Armitage, J., Dimov, I., Kraft, U., Zhang, W., Alsufyani, M., McCulloch, I., Owens, R. M., Claesson, P. M., Knowles, T. P. J., & Siringhaus, H. (2023). Effects of Processing-Induced Contamination on Organic Electronic Devices. *Small methods*, 7(11), 2300476. doi:10.1002/smt.202300476

Liu, B., Garza, D. R., Gonze, D., Krzynowek, A., Simoens, K., Bernaerts, K., Geirnaert, A., & Faust, K. (2023). Starvation responses impact interaction dynamics of human gut bacteria *Bacteroides thetaiotaomicron* and *Roseburia intestinalis*. *The ISME Journal*. doi:10.1038/s41396-023-01501-1

Benshalom, N., Asher, M., Jouclas, R., Korobko, R., Schweicher, G., Liu, J., Geerts, Y., Hellman, O., & Yaffe, O. (2023). Phonon–Phonon Interactions in the Polarization Dependence of Raman Scattering. *The Journal of Physical Chemistry Part C: Nanomaterials and Interfaces*, 127(36), 18099-18106. doi:10.1021/acs.jpcc.3c03850

Karan, P., Ghosh, U., Brau, F., Méheust, Y., & Le Borgne, T. (2023). Effect of hydrodynamic dispersion on spherical reaction front dynamics in porous media. *Physical Review Fluids*, 8(8), 084502. doi:10.1103/PhysRevFluids.8.084502

Fang, J., Bekkouch, O., Zeiser, G., Zubchuk, Y., Bizet, V., Blanchard, N., & Evano, G. (2023). Copper-Catalyzed, Ligand-Controlled N(sp³)- or N(sp²)- Selective Arylation of Cyanamides. *Organic letters*, 25, 6446-6451. doi:10.1021/acs.orglett.3c02622

Lavendomme, R., Moerkerke, S., Mariaule, G., & Jabin, I. (2023). Selective binding of oxalate by a tris-ureido calix[6]tube in a protic environment. *Organic & biomolecular chemistry*, 21(33), 6730-6737. doi:10.1039/D3OB00947E

Ramírez-Ávila, G. M., Kurths, J., Gonze, D., & Dupont, G. (2023). Exploring chronomodulated radiotherapy strategies in a chaotic population model. *Chaos, solitons and fractals*, 173, 113743. doi:10.1016/j.chaos.2023.113743

Aerts, A., Jolly, S. W., Kockaert, P., Gorza, S.-P., Vander Auwera, J., & Vaeck, N. (2023). Modulated super-Gaussian laser pulse to populate a dark rovibrational state of acetylene. *The Journal of Chemical Physics*, 159(8), 084303. doi:10.1063/5.0160526

Ossohou, M., Hickman, J. E., Clarisse, L., Coheur, P., Van Damme, M., Adon, M., Yoboué, V., Gardrat, E., Alvès, M. D., & Galy-Lacaux, C. (2023). Trends and seasonal

variability in ammonia across major biomes in western and central Africa inferred from long-term series of ground-based and satellite measurements. *Atmospheric chemistry and physics*, 23(16), 9473-9494. doi:10.5194/acp-23-9473-2023

Zeng, Z.-C., Lee, L., Qi, C., Clarisse, L., & Van Damme, M. (2023). Optimal estimation retrieval of tropospheric ammonia from the Geostationary Interferometric Infrared Sounder on board FengYun-4B. *Atmospheric Measurement Techniques*, 16(15), 3693-3713. doi:10.5194/amt-16-3693-2023

Nyssen, N., Giraud, N., Wouters, J., Jabin, I., Leherste, L., & Reinaud, O. (2023). Guest exchange in a biomimetic ZnII cavity-complex: kinetic control by a catalytic water, through pore selection, 2nd sphere assistance, and induced-fit processes. *Inorganic chemistry frontiers*, 10(19), 5772-5781. doi:10.1039/d3qi01271a

Body, N., Bevernaegie, R., Lefebvre, C., Jabin, I., Hermans, S., Riant, O., & Troian-Gautier, L. (2023). Photo-catalyzed arylation of enol acetate using recyclable silica-supported heteroleptic and homoleptic copper(I) photosensitizers. *Chemistry*, 29, e202301212. doi:10.1002/chem.202301212

Lambert, S., Bartik, K., & Jabin, I. (2023). Supramolecular protection with a recyclable molecular container: an efficient strategy for the one-pot selective functionalization of polyfunctional substrates. *Organic chemistry frontiers*, 10(17), 4230-4242. doi:10.1039/D3QO00804E

Ferrari, E., Pandolfi, L., Schweicher, G., Geerts, Y., Salzillo, T., Masino, M., & Venuti, E. (2023). Interlayer Sliding Phonon Drives Phase Transition in the Ph-BTBT-10 Organic Semiconductor. *Chemistry of materials*, 35(15), 5777-5783. doi:10.1021/acs.chemmater.3c00209

Kozyreff, G., Siefert, E., Radisson, B., & Brau, F. (2023). The $\#$ -formulation of the 2D elastica -- Buckling and boundary layer theory. *Proceedings - Royal Society. Mathematical, physical and engineering sciences*, 479, 20230087. doi:10.1098/rspa.2023.0087

Riederer, P., Devaux, F., Schweicher, G., Geerts, Y., & Kersting, R. (2023). Molecular semiconductors and the Ioffe–Regel criterion: A terahertz study on band transport in DBTTT. *Applied physics letters*, 123(3), 032103. doi:10.1063/5.0153710

Wei, J., Rico-Guevara, A., Nicolson, S. W., Brau, F., Damman, P., Gorb, S. N., Wu, Z., & Wu, J. (2023). Honey bees switch mechanisms to drink deep nectar efficiently. *Proceedings of the National Academy of Sciences of the United States of America*, 120(30), e2305436120. doi:10.1073/pnas.2305436120

Flörs, A., Silva, R., Deprince, J., Carvajal Gallego, H., Leck, G., Shingles, L., Martínez Pinedo, G., Sampaio, J., Amaro, P., Marques, J., Goriely, S., Quinet, P., Palmeri, P., & Godefroid, M. (2023). Opacities of singly and doubly ionized neodymium and uranium for kilonova emission modeling. *Monthly notices of the Royal Astronomical Society*, 524, 3083. doi:10.1093/mnras/stad2053

Volpi, M., Jouclas, R., Liu, J., Liu, G., Catalano, L., McIntosh, N., Bardini, M., Gatsios, C., Modesti, F., Turetta, N., Beljonne, D., Cornil, J., Kennedy, A. R., Koch, N., Erk, P., Samori,

P., Schweicher, G., & Geerts, Y. (2023). Enantiopure Dinaphtho[2,3-b:2,3'-f']thieno[3,2-b]thiophenes: Reaching High Magnetoresistance Effect in OFETs. *Advanced Science*, 10(26), 2301914. doi:10.1002/adv.202301914

James, A. M., McIntosh, N., Devaux, F., Brocorens, P., Cornil, J., Greco, A., Maini, L., Pandey, P., Pandolfi, L., Kunert, B., Venuti, E., Geerts, Y., & Resel, R. (2023). Polymorph screening at surfaces of a benzothienobenzothiophene derivative: discovering new solvate forms. *Materials Horizons*, 10(10), 4415-4422. doi:10.1039/d3mh00764b

Turbant, F., Waeytens, J., Blache, A., Esnouf, E., Raussens, V., Węgrzyn, G., Achouak, W., Wien, F., & Arluison, V. (2023). Interactions and Insertion of Escherichia coli Hfq into Outer Membrane Vesicles as Revealed by Infrared and Orientated Circular Dichroism Spectroscopies. *International Journal of Molecular Sciences (CD-ROM)*, 24(14), 11424. doi:10.3390/ijms241411424

Retout, M., Gosselin, B., Adrovic, A., Blond, P., Jabin, I., & Bruylants, G. (2023). Ultra-stable Silver Nanoplates: Efficient and Versatile Colorimetric Reporters for Dipstick Assays. *Nanoscale*, 15, 11981-11989. doi:10.1039/D3NR02378H

Armalyte, J., Cepauskas, A., Šakalytė, G., Martinkus, J., Skerniškytė, J., Martens, C., Sužiedeliene, E., Garcia-Pino, A., & Jurenas, D. (2023). A polyamine acetyltransferase regulates the motility and biofilm formation of Acinetobacter baumannii. *Nature communications*, 14(1). doi:10.1038/s41467-023-39316-5

Gregori, G., Doneux, T., & Lim, J. (2023). Electrochemical Measurement of CoO Solubility Product and Co Solubility in Molten Lead-Bismuth Eutectic by Solid-State Ionic Devices. *Journal of the Electrochemical Society*, 170, 061505. doi:10.1149/1945-7111/acdc56

Deprince, J., Carvajal Gallego, H., Godefroid, M., Goriely, S., Palmeri, P., & Quinet, P. (2023). On the sensitivity of uranium opacity with respect to the atomic properties in the context of kilonova emission modeling. *The European Physical Journal D. Atomic, Molecular and Optical Physics*, 77, 93. doi:10.1140/epjd/s10053-023-00671-z

Weiß, M., Hernandez, L. C., Gil Montoya, D. C., Löhndorf, A., Krüger, A., Kopdag, M., Uebler, L., Landwehr, M., Nawrocki, M., Huber, S., Woelk, L.-M., Werner, R., Failla, A. A., Flügel, A., Dupont, G., Guse, A. H., & Diercks, B. P. (2023). Adhesion to laminin-1 and collagen IV induces the formation of Ca²⁺ microdomains that sensitize mouse T cells for activation. *Science Signaling*, 16(790), eabn9405. doi:10.1126/scisignal.abn9405

Kabbadj, S., Rongy, L., & De Wit, A. (2023). Effect of variable solubility on reactive dissolution in partially miscible systems. *Physical Review E*, 107(6), 065109. doi:10.1103/PhysRevE.107.065109

Noppen, L., Clarisse, L., Tack, F., Ruhtz, T., Merlaud, A., Coheur, P., Van Damme, M., Van Roozendaal, M., & Schuettmeyer, D. (2023). Constraining industrial ammonia emissions using hyperspectral infrared imaging. *Remote sensing of environment*, 291, 113559. doi:10.1016/j.rse.2023.113559

- Bonal, M., Goetghebuer, L., Joseph, C., Gonze, D., Faust, K., & George, I. (2023). Deciphering Interactions Within a 4-Strain Riverine Bacterial Community. *Current microbiology*, 80(8), 238. doi:10.1007/s00284-023-03342-9
- Franceschini, F., Payo, M. R., Schouteden, K., Ustarroz Troyano, J., Locquet, J. P., & Taurino, I. (2023). MBE Grown Vanadium Oxide Thin Films for Enhanced Non#Enzymatic Glucose Sensing. *Advanced functional materials*. doi:10.1002/adfm.202304037
- Banks, P. A., D'Avino, G., Schweicher, G., Armstrong, J., Ruzié, C., Chung, J. W., Park, J.-I., Sawabe, C., Okamoto, T., Takeya, J., Sirringhaus, H., & Ruggiero, M. T. (2023). Untangling the Fundamental Electronic Origins of Non-Local Electron–Phonon Coupling in Organic Semiconductors. *Advanced functional materials*, 33(38), 2303701. doi:10.1002/adfm.202303701
- Landrain, Y., & Evano, G. (2023). Synthesis of Tetrahydrofurans and Pyrrolidines by Copper-Catalyzed Oxy-/Amino-Arylation of Alkenes. *Organic letters*, 25, 3898-3903. doi:10.1021/acs.orglett.3c01265
- Carvajal Galleo, H., Deprince, J., Godefroid, M., Goriely, S., Palmeri, P., & Quinet, P. (2023). On the importance of using realistic partition functions in kilonova opacity calculations. *The European physical journal. D, Atomic, molecular and optical physics*, 77, 72. doi:10.1140/ep_jd/s10053-023-00638-0
- Wizenberg, T., Strong, K., Jones, D. B. A., Lutsch, E., Mahieu, E., Franco, B., & Clarisse, L. (2023). Exceptional Wildfire Enhancements of PAN, C₂H₄, CH₃OH, and HCOOH Over the Canadian High Arctic During August 2017. *Journal of Geophysical Research: Atmospheres*, 128(10), e2022JD038052. doi:10.1029/2022JD038052
- Pandey, P., Fijahi, L., McIntosh, N., Turetta, N., Bardini, M., Giannini, S., Ruzié, C., Schweicher, G., Beljonne, D., Cornil, J., Samori, P., Mas-Torrent, M., Geerts, Y., Modena, E., & Maini, L. (2023). From synthesis to device fabrication: elucidating the structural and electronic properties of C7-BTBT-C7. *Journal of Materials Chemistry C*, 11(22), 7345-7355. doi:10.1039/D3TC00434A
- Jin, Z., Yeung, J., Zhou, J., Retout, M., Yim, W., Fajtová, P., Gosselin, B., Jabin, I., Bruylants, G., Mattoussi, H., O'Donoghue, A. J., & Jokerst, J. V. (2023). Empirical Optimization of Peptide Sequence and Nanoparticle Colloidal Stability: The Impact of Surface Ligands and Implications for Colorimetric Sensing. *ACS Applied Materials & Interfaces*, 15(16), 20483–20494. doi:10.1021/acsmi.3c00862
- Jönsson, P. E. P., Gaigalas, G., Fischer, C., Biero#, J., Grant, I., Brage, T., Ekman, J., Godefroid, M., Grumer, J., Li, J., & Li, W. (2023). GRASP Manual for Users. *Atoms*, 11(4), 68. doi:10.3390/atoms11040068
- Van Vu, A., Boynard, A., Prunet, P., Jolivet, D., Lezeaux, O., Henry, P., Camy-Peyret, C., Clarisse, L., Franco, B., Coheur, P., & Clerbaux, C. (2023). Near-real-time detection of unexpected atmospheric events using principal component analysis on the Infrared Atmospheric Sounding Interferometer (IASI) radiances. *Atmospheric Measurement Techniques*, 16(8), 2107-2127. doi:10.5194/amt-16-2107-2023

Leung, C., Gérard, C., & Gonze, D. (2023). Modeling the Circadian Control of the Cell Cycle and Its Consequences for Cancer Chronotherapy. *Biology*, 12(4). doi:10.3390/biology12040612

Tiani, R., & Rongy, L. (2023). Marangoni-driven nonlinear dynamics of bimolecular frontal systems: a general classification for equal diffusion coefficients. *Philosophical transactions - Royal Society. Mathematical, Physical and engineering sciences*, 381(2245), 20220080. doi:10.1098/rsta.2022.0080

Lenne, Q., Mattiuzzi, A., Jabin, I., Troian#Gautier, L., Hamon, J., Leroux, Y., & Lagrost, C. (2023). Chemical Surface Grafting of Pt Nanocatalysts for Reconciling Methanol Tolerance with Methanol Oxidation Activity. *ChemSusChem (Print)*, 16(8). doi:10.1002/cssc.202201990

Deguine, A., Clarisse, L., Herbin, H., & Petitprez, D. (2023). Measuring Volcanic Ash with High-Spectral Resolution Infrared Sounders: Role of Refractive Indices. *IEEE geoscience and remote sensing letters*.

Nguyen, T. P., Do, T. H., Doneux, T., Nguyen, H. N., & Thanh, D. T. M. (2023). Synthesis of metal organic framework based on Cu and benzene-1,3,5-tricarboxylic acid (H3BTC) by potentiodynamic method for CO₂ adsorption. *Vietnam journal of chemistry*, 61, 210-219. doi:10.1002/vjch.202200125

Comolli, A., Negrojevic, L., Brau, F., & De Wit, A. (2023). Effect of radial advection on autocatalytic reaction-diffusion fronts. *PCCP. Physical chemistry chemical physics*, 25(15), 10604-10619. doi:10.1039/D3CP00217A

Bertolucci Coelho, L., Torres Morillo, D., Bernal, M., Paldino, G. M., Bontempi, G., & Ustarroz Troyano, J. (2023). Probing the randomness of the local current distributions of 316 L stainless steel corrosion in NaCl solution. *Corrosion science*, 217, 111104. doi:10.1016/j.corsci.2023.111104

Beaudelot, J., Evano, G., & Moucheron, C. (2023). Structure-Property Relationships in a New Family of Photoactive Diimine-Diphosphine Copper(I) Complexes. *Chemistry*, 29, e202300758. doi:10.1002/chem.202300758

Freeman, J. S., Mamme, M. H., Ustarroz Troyano, J., Warr, G. G., Li, H., & Atkin, R. (2023). Molecular Resolution Nanostructure and Dynamics of the Deep Eutectic Solvent—Graphite Interface as a Function of Potential. *Small*, 19(12), 2204993. doi:10.1002/smll.202204993

Kozyreff, G., Davidovitch, B., Ganga Prasath, S., Palumbo, G., & Brau, F. (2023). Effect of external tension on the wetting of an elastic sheet. *Physical Review E*, 107, 035101. doi:10.1103/PhysRevE.107.035101

Retout, M., Gosselin, B., Jokerst, J., Jabin, I., & Bruylants, G. (2023). A Fluoride-Induced Aggregation Test to Quickly Assess the Efficiency of Ligand Exchange Procedures from Citrate Capped AuNPs. *Colloids and surfaces. A, Physicochemical and engineering aspects*, 660, 130801. doi:10.1016/j.colsurfa.2022.130801

Jacob, C., Annibaleto, J., Maes, B. U. W., & Evano, G. (2023). Direct Arylation of C(sp²)-H Bonds in Anilines. *Synthesis*, 55, 1799-1823. doi:10.1055/a-2039-7985

Vander Steen, J., Boissou, F., Luhmer, M., Buess Herman, C., Baranton, S., Coutanceau, C., & Doneux, T. (2023). Furfural electroreduction in choline-glycerol deep eutectic solvent. *Journal of Electroanalytical Chemistry*, 933, 117269. doi:10.1016/j.jelechem.2023.117269

Zongo, I., Bougouma, M., & Moucheron, C. (2023). Proposal for a didactic tool on teaching practices related to the selective sorting of plastic waste according to density in high schools and colleges: case study in Burkina Faso. *Journal of chemical education*, 100, 1118-1127.

Bernal, M., Torres Morillo, D., Parapari, S. S., #eh, M., Rožman, K. Ž., Šturm, S., & Ustarroz Troyano, J. (2023). A microscopic view on the electrochemical deposition and dissolution of Au with scanning electrochemical cell microscopy – Part I. *Electrochimica acta*, 445, 142023. doi:10.1016/j.electacta.2023.142023

Asher, M., Bardini, M., Catalano, L., Jouclas, R., Schweicher, G., Liu, J., Korobko, R., Cohen, A., Geerts, Y., Beljonne, D., & Yaffe, O. (2023). A Mechanistic View On The Order-Disorder Phase Transition In Amphidynamic Crystals. *The Journal of Physical Chemistry Letters*, 14, 1570#1577. doi:10.1021/acs.jpcllett.2c03316

Pontisso, I., Ornelas Guevara, R., Combettes, L., & Dupont, G. (2023). A journey in UPR modelling. *Biology of the cell*, e202200111. doi:10.1111/boc.202200111

Bettoni, R., Hudson, C., Guillaume, G., Sirour, C., Yasuo, H., De Buyl, S., & Dupont, G. (2023). Model of neural induction in the ascidian embryo. *PLoS computational biology*, 19(2), e1010335. doi:10.1371/journal.pcbi.1010335

Ornelas Guevara, R., Gil, D., Voorsluijs, V., & Dupont, G. (2023). Computational investigation of IP3 diffusion. *Scientific reports*, 13(1), 2922. doi:10.1038/s41598-023-29876-3

Budroni, M., Lemaigre, L., Escala, D. M., & De Wit, A. (2023). Buoyancy-Driven Chemohydrodynamic Patterns in A + B # Oscillator Two-Layer Stratifications. *Langmuir*, 29, 997.

Vailati, A., Bataller, H., Bou-Ali, M., Carpinetti, M., Cerbino, R., Croccolo, F., Egelhaaf, S., Giavazzi, F., Giraudet, C., Guevara-Carrion, G., Horváth, D., Köhler, W., Mialdun, A., Porter, J., Schwarzenberger, K., Shevtsova, V., & De Wit, A. (2023). Diffusion in liquid mixtures. *npj Microgravity*, 9, 1.

Rios Garza, D., Gonze, D., Zafeiropoulos, H., Liu, B., & Faust, K. (2023). Metabolic models of human gut microbiota: Advances and challenges. *Cell systems*, 14(2), 109-121. doi:10.1016/j.cels.2022.11.002

Beaudor, M., Vuichard, N., Lathière, J., Evangelidou, N., Van Damme, M., Clarisse, L., & Hauglustaine, D. (2023). Global agricultural ammonia emissions simulated with the

ORCHIDEE land surface model. *Geoscientific Model Development*, 16(3), 1053-1081. doi:10.5194/gmd-16-1053-2023

Buddhadasa, M., Verougstraete, B., Gomez-Rueda, Y., Petitjean, D., Denayer, J. J., & Reniers, F. (2023). A study of plasma-porous carbon-CO₂ interactions: Ammonia plasma treatment and CO₂ capture. *Journal of CO₂ utilization*, 68, 102388. doi:10.1016/j.jcou.2022.102388

Eshtehardi, H. A., Van 't Veer, K., Delplancke, M.-P., Reniers, F., & Bogaerts, A. (2023). Postplasma Catalytic Model for NO Production: Revealing the Underlying Mechanisms to Improve the Process Efficiency. *ACS Sustainable Chemistry and Engineering*, 11(5), 1720-1733. doi:10.1021/acssuschemeng.2c05665

Aoun, P., Nyssen, N., Richard, S., Zhurkin, F., Jabin, I., Colasson, B., & Reinaud, O. (2023). Selective Metal Ion Complexation of a Biomimetic Calix[6]arene Funnel Cavity functioned with phenol or quinone. *Chemistry*, e202202934. doi:10.1002/chem.202202934

Lenne, Q., Mattiuzzi, A., Jabin, I., Hamon, J., Leroux, Y., & Lagrost, C. (2023). Chemical tuning of metal nanocatalysts interface for ORR electrocatalysis. *Advanced Materials Interfaces*, 10, 2202219. doi:10.1002/admi.202202219

Jönsson, P. E. P., Godefroid, M., Gaigalas, G., Ekman, J., Grumer, J., Li, W., Li, J., Brage, T., Grant, I., Biero#, J., & Fischer, C. (2023). An Introduction to Relativistic Theory as Implemented in GRASP. *Atoms*, 11(1), 7. doi:10.3390/atoms11010007

Li, Y., Jönsson, P. E. P., Godefroid, M., Gaigalas, G., Biero#, J., Marques, J., Indelicato, P., & Chen, C. Y. (2023). Independently Optimized Orbital Sets in GRASP—The Case of Hyperfine Structure in Li I. *Atoms*, 11(1), 4. doi:10.3390/atoms11010004

Li, Y., Li, J. Q., Song, C. X., Zhang, C. Y., Si, R., Wang, K., Godefroid, M., Gaigalas, G., Jönsson, P. E. P., & Chen, C. Y. (2023). Performance Tests and Improvements on the rmdhf and rci Programs of GRASP. *Atoms*, 11(1), 12. doi:10.3390/atoms11010012

Waeytens, J., De Meutter, J., Goormaghtigh, E., Dazzi, A., & Raussens, V. (2023). Determination of Secondary Structure of Proteins by Nanoinfrared Spectroscopy. *Analytical chemistry*. doi:10.1021/acs.analchem.2c01431

Gil Montoya, D. D., Ornelas-Guevara, R., Diercks, B. P., Guse, A. H., & Dupont, G. (2023). T cell Ca²⁺ microdomains through the lens of computational modeling. *Frontiers in immunology*, 14, 1235737. doi:10.3389/fimmu.2023.1235737

Betnga, T., Kwabia-Tchana, F., Perrin, A., Manceron, L., Vander Auwera, J., Hindle, F., & Coutens, A. (2023). New line intensities for the far infrared bands of the Trans- and Cis-conformer of nitrous acid (HONO), new determination of the Trans-Cis conformer barrier and its impact on the astrophysical detection of nitrous acid in protostellar clouds. *Journal of quantitative spectroscopy & radiative transfer*, 310, 108727. doi:10.1016/j.jqsrt.2023.108727

- Cacciani, P., Hermák, P., Votava, O., Vander Auwera, J., & Campargue, A. (2023). The ammonia absorption spectrum revisited between 5650 and 6350 cm⁻¹. *Molecular Physics*, (2256893). doi:10.1080/00268976.2023.2256893
- Fijahi, L., Li, J., Tamayo, A., Volpi, M., Schweicher, G., Geerts, Y., & Mas-Torrent, M. (2023). High throughput processing of dinaphtho[2,3-b:2',3'-f']thieno[3,2-b]thiophene (DNTT) organic semiconductors. *Nanoscale*, 15, 230-236. doi:10.1039/D2NR05625A
- Schultz, T., Bärmann, P., Longhi, E., Meena, R., Geerts, Y., Gogotsi, Y., Barlow, S., Marder, S., Petit, T., & Koch, N. (2023). Work function and energy level alignment tuning at Ti₃C₂T_x MXene surfaces and interfaces using (metal-)organic donor/acceptor molecules. *Physical Review Materials*, 7(4). doi:10.1103/PhysRevMaterials.7.045002
- Jain, N., Hao, Y., Parekh, U., Kaltenecker, M., Pedraza-Tardajos, A., Lazzaroni, R., Resel, R., Geerts, Y., Bals, S., & Van Aert, S. (2023). Exploring the effects of graphene and temperature in reducing electron beam damage: A TEM and electron diffraction-based quantitative study on Lead Phthalocyanine (PbPc) crystals. *Micron*, 169, 103444. doi:10.1016/j.micron.2023.103444
- Delfino, C., Hao, Y., Martin, C., Minoia, A., Gopi, E., Mali, K. S., Van der Auweraer, M., Geerts, Y., Van Aert, S., Lazzaroni, R., & De Feyter, S. (2023). Conformation-Dependent Monolayer and Bilayer Structures of an Alkylated TTF Derivative Revealed using STM and Molecular Modeling. *The Journal of Physical Chemistry Part C: Nanomaterials and Interfaces*, 127(47), 23023-23033. doi:10.1021/acs.jpcc.3c04913
- James, A. M., Greco, A., Devaux, F., McIntosh, N., Brocorens, P., Cornil, J., Pandey, P., Kunert, B., Maini, L., Geerts, Y., & Resel, R. (2023). Memory Effect by Melt Crystallization Observed in Polymorphs of a Benzothieno-Benzothiophene Derivative. *Crystal growth & design*, 23(11), 8124-8131. doi:10.1021/acs.cgd.3c00847
- Ripak, A., De Kreijger, S., Sampaio, R. N., Vincent, C. A., Cauet, E., Jabin, I., Tambar, U. K., Elias, B., & Troian-Gautier, L. (2023). Photosensitized activation of diazonium derivatives for C–B bond formation. *Chem catalysis*, 3, 100490. doi:10.1016/j.checat.2022.100490
- Deguine, A., Petitprez, D., Clarisse, L., Deschutter, L., Fontijn, K., & Herve, H. (2023). Retrieval of refractive indices of ten volcanic ash samples in the infrared, visible and ultraviolet spectral region. *Journal of aerosol science*, 167, 106100. doi:10.1016/j.jaerosci.2022.106100
- Zhang, C., Blanchard, N., & Evano, G. (2023). Radical Cyclization of Ynamides to Nitrogen Heterocycles. *Synthesis*, 55, 272-288. doi:10.1055/a-1868-8092
- Ainelo, A., Caballero-Montes, J., Bulvas, O., Ernits, K., Coppieters, T., Wallant, K., Takada, H., Craig, S., Mazzucchelli, G., Zedek, S., Pichová, I. I., Atkinson, G. C., Talavera Perez, A., Martens, C., Haurlyuk, V., & Garcia-Pino, A. (2023). The structure of DarB in complex with Rel NTD reveals nonribosomal activation of Rel stringent factors. *Science advances*, 9(3). doi:10.1126/sciadv.ade4077

Cappello, J., Scheid, B., Brau, F., & Siefert, E. (2023). Bioinspired shape shifting of liquid-infused ribbed sheets. *Proceedings of the National Academy of Sciences of the USA*, 120(1), e2216001120. doi:10.1073/pnas.2216001120

Bastin, O., Thulliez, M., Serra, T., Nyssen, L., Fontaine, T., Devière, J., Delchambre, A., Reniers, F., & Nonclercq, A. (2023). Electrical equivalent model of a long dielectric barrier discharge plasma jet for endoscopy. *Journal of physics. D, Applied physics*. doi:10.1088/1361-6463/acb603

De Leener, G., Over, D., Reinaud, O., & Jabin, I. (2023). A 4-state acid-base controlled molecular switch based on a host-guest system. *Organic & biomolecular chemistry*, 21, 1172-1180. doi:10.1039/D2OB01994A

2022

Ma, T., Grzdowski, A., Doneux, T., & Bizzotto, D. (2022). Redox-Controlled Energy Transfer Quenching of Fluorophore- Labeled DNA SAMs Enables In Situ Study of These Complex Electrochemical Interfaces. *Journal of the American Chemical Society*, 144, 23428-23437. doi:10.1021/jacs.2c09474

Fischer, C., & Godefroid, M. (2022). Variational Methods for Atoms and the Virial Theorem. *Atoms*, 10(4), 110. doi:10.3390/atoms10040110

Li, J., Gaigalas, G., Biero#, J., Ekman, J., Jönsson, P. E. P., Godefroid, M., & Fischer, C. (2022). Re-Evaluation of the Nuclear Magnetic Octupole Moment of 209Bi. *Atoms*, 10(4), 132. doi:10.3390/atoms10040132

Cacciani, P., #ermák, P., Vander Auwera, J., & Campargue, A. (2022). The ammonia absorption spectrum between 4700 and 5650 cm#1. *Journal of quantitative spectroscopy & radiative transfer*, 292, 108350. doi:10.1016/j.jqsrt.2022.108350

Van Damme, M., Clarisse, L., Stavrakou, T., Wichink Kruit, R., Sellekaerts, L., Viatte, C., Clerbaux, C., & Coheur, P. (2022). On the weekly cycle of atmospheric ammonia over European agricultural hotspots. *Scientific Reports*, 12(1). doi:10.1038/s41598-022-15836-w

Zhang, T., Tamman, H., Coppieters'T Wallant, K., Kurata, T., LeRoux, M., Srikant, S., Brodiazhenko, T., Cepauskas, A., Talavera Perez, A., Martens, C., Atkinson, G. C., Hauryliuk, V., Garcia-Pino, A., & Laub, M. T. (2022). Direct activation of a bacterial innate immune system by a viral capsid protein. *Nature (London)*, 612(7938), 132-140. doi:10.1038/s41586-022-05444-z

Jos, S., Tan, C., Thilmann, P., Saadane, A., Slebodnick, C., Evano, G., & Santos, W. L. (2022). Phosphine-Catalyzed Regio- and Stereo-Selective Hydroboration of Ynamides to (Z)-#-Borylenamides. *Chemical communications*, 58, 13751-13754. doi:10.1039/d2cc04543e

Whitburn, S., Clarisse, L., Crapeau, M., August, T., Hultberg, T., Coheur, P., & Clerbaux, C. (2022). A CO2-independent cloud mask from Infrared Atmospheric Sounding Interferometer (IASI) radiances for climate applications. *Atmospheric Measurement Techniques*, 15(22), 6653-6668. doi:10.5194/amt-15-6653-2022

Herrera, B., Bezanilla, A., Blumenstock, T., Dammers, E. D. E., Hase, F., Clarisse, L., Magaldi, A., Rivera, C., Stremme, W., Strong, K., Viatte, C., Van Damme, M., & Grutter, M. (2022). Measurement report: Evolution and distribution of NH₃ over Mexico City from ground-based and satellite infrared spectroscopic measurements. *Atmospheric chemistry and physics*, 22(21), 14119-14132. doi:10.5194/acp-22-14119-2022

Lavendomme, R., & Jabin, I. (2022). Iteroselectivity, the missing sibling of chemo-, regio-, and stereoselectivities. *Cell reports physical science*, 3(11), 101121. doi:10.1016/j.xcrp.2022.101121

Franco, B., Clarisse, L., Van Damme, M., Hadji-Lazaro, J., Clerbaux, C., & Coheur, P. (2022). Ethylene industrial emitters seen from space. *Nature communications*, 13(1), 6452. doi:10.1038/s41467-022-34098-8

Gillet, J., Rongy, L., & De Decker, Y. (2022). Spontaneous Mirror Symmetry Breaking in reaction-diffusion systems: Ambivalent role of the achiral precursor. *PCCP. Physical chemistry chemical physics*, 24, 26144. doi:10.1039/D2CP03102G

Suys, O., Derenne, A., & Goormaghtigh, E. (2022). ATR-FTIR Biosensors for Antibody Detection and Analysis. *International journal of molecular sciences*, 23(19), 11895. doi:10.3390/ijms231911895

Wang, W., Liu, C., Clarisse, L., Van Damme, M., Coheur, P., Xie, Y., Shan, C., Hu, Q., Sun, Y., & Jones, N. (2022). Ground-based measurements of atmospheric NH₃ by Fourier transform infrared spectrometry at Hefei and comparisons with IASI data. *Atmospheric environment*, 287, 119256. doi:10.1016/j.atmosenv.2022.119256

Pelicaen, R., Weckx, S., Gonze, D., & De Vuyst, L. (2022). Application of comparative genomics of *Acetobacter* species facilitates genome-scale metabolic reconstruction of the *Acetobacter ghanensis* LMG 23848T and *Acetobacter senegalensis* 108B cocoa strains. *Frontiers in microbiology*, 13, 1060160. doi:10.3389/fmicb.2022.1060160

Torres Morillo, D., Bernal, M., Demaude, A., Hussain, S., Bar, L., Losada Perez, P., Reniers, F., & Ustarroz Troyano, J. (2022). Distribution of Copper Electrochemical Nucleation Activities on Glassy Carbon: A New Perspective Based on Local Electrochemistry. *Journal of the Electrochemical Society*, 169(10), 102513. doi:10.1149/1945-7111/ac9717

Gomez-Rueda, Y., Verougstraete, B., Ranga, C., Perez-Botella, E., Reniers, F., & Denayer, J. (2022). Rapid temperature swing adsorption using microwave regeneration for carbon capture. *Chemical engineering journal*, 446, 137345. doi:10.1016/j.cej.2022.137345

Bastin, O., Thulliez, M., Delchambre, A., Devière, J., Reniers, F., & Nonclercq, A. (2022). Analysis of a nano-pulsed DBD Plasma jet for endoscopy and impact of excitation parameters. *Journal of physics. D, Applied physics*, 55(41), 415204. doi:10.1088/1361-6463/ac855d

Carpentier, R., Lambert, S., Brunetti, E., Jabin, I., & Bartik, K. (2022). Specific Binding of Primary Ammoniums in Aqueous Media by Homooxalixarenes Incorporated into Micelles. *Journal of organic chemistry*, 87, 12749-12758. doi:10.1021/acs.joc.2c01318

Chen, T.-H., Garnir, K., Chen, C., Jian, C.-B., Gao, H.-D., Tseng, B., Tseng, M. C., Moucheron, C., Kirsch-De Mesmaeker, A., & Lee, H.-M. (2022). A toolkit for engineering protein in living cell: peptide with tryptophan-selective Ru-TAP complex to regioselectively photolabel specific protein. *Journal of the American Chemical Society*, 144(39), 18117-18125.

Yang, Y., Silva De Moraes, L., Ruzié, C., Schweicher, G., Geerts, Y., Kennedy, A. R., Zhou, H., Whittaker, S. J., Lee, S. S., Kahr, B., & Shtukenberg, A. G. (2022). Charge Transport in Twisted Organic Semiconductor Crystals of Modulated Pitch. *Advanced materials*, 34(38), 2203842. doi:10.1002/adma.202203842

Tran, H., Vander Auwera, J., Bertin, T., Fakhardji, W., Pirali, O., & Hartmann, J. M. (2022). Absorption of methane broadened by carbon dioxide in the 3.3 μm spectral region: From line centers to the far wings. *Icarus*, 384, 115093. doi:10.1016/j.icarus.2022.115093

Gregori, G., Aerts, A., Gladinez, K., Rosseel, K., Doneux, T., & Lim, J. (2022). Electrochemical measurement of solubility product of metal oxides in liquid metals by coulometric titration of oxygen. *Electrochimica acta*, 432, 141202. doi:10.1016/j.electacta.2022.141202

Schiffmann, S., Li, J., Ekman, J., Gaigalas, G., Godefroid, M., Jönsson, P. E. P., & Biero#, J. (2022). Relativistic radial electron density functions and natural orbitals from GRASP2018. *Computer physics communications*, 278, 108403. doi:10.1016/j.cpc.2022.108403

Krawczyk, L., Semwal, S., Soubhye, J., Lemri Ouadriri, S., Prévost, M., Van Antwerpen, P., Roos, G., & Bouckaert, J. (2022). Native glycosylation and binding of the antidepressant paroxetine in a low-resolution crystal structure of human myeloperoxidase. *Acta Crystallographica Section D: Structural Biology*, 78(Pt 9), 1099-1109. doi:10.1107/S2059798322007082

Beale, C., Paulot, F., Randles, C., Wang, R., Guo, X., Clarisse, L., Van Damme, M., Coheur, P., Clerbaux, C., Shephard, M. W., Dammers, E. D. E., Cady-Pereira, K., & Zondlo, M. A. (2022). Large sub-regional differences of ammonia seasonal patterns over India reveal inventory discrepancies. *Environmental Research Letters*, 17(10), 104006. doi:10.1088/1748-9326/ac881f

Thulliez, M., Bastin, O., Remy, A., Nonclercq, A., Devière, J., Delchambre, A., & Reniers, F. (2022). Effect of gas flow on a helium/oxygen endoscopic plasma jet. *Journal of physics. D, Applied physics*, 55(41), 415202. doi:10.1088/1361-6463/ac7f03

Beaudelot, J., Oger, S., Perusko, S., Phan, T.-A., Teunens, T., Moucheron, C., & Evano, G. (2022). Photoactive Copper Complexes: Properties and Applications. *Chemical reviews*, 122, 16365-16609. doi:10.1021/acs.chemrev.2c00033

Baguia, H., Beaudelot, J., Moucheron, C., & Evano, G. (2022). Photoinduced, Copper-Catalysed Direct Perfluoroalkylation of Heteroarenes. *Chemical communications*, 58, 9080-9083. doi:10.1039/D2CC02146C

Wespes, C., Ronsmans, G., Clarisse, L., Solomon, S., Hurtmans, D., Clerbaux, C., & Coheur, P. (2022). Polar stratospheric nitric acid depletion surveyed from a decadal dataset of IASI total columns. *Atmospheric chemistry and physics*, 22(16), 10993-11007. doi:10.5194/acp-22-10993-2022

Luo, Z., Zhang, Y., Chen, W., Van Damme, M., Coheur, P., & Clarisse, L. (2022). Estimating global ammonia (NH₃) emissions based on IASI observations from 2008 to 2018. *Atmospheric chemistry and physics*, 22(15), 10375-10388. doi:10.5194/acp-22-10375-2022

Turbant, F., Waeytens, J., Campidelli, C., Bombled, M., Martinez, D., Grélard, A., Habenstein, B., Raussens, V., Vélez, M., Wien, F., & Arluison, V. (2022). Unraveling Membrane Perturbations Caused by the Bacterial Riboregulator Hfq. *International Journal of Molecular Sciences (CD-ROM)*, 23(15), 8739. doi:10.3390/ijms23158739

Tyson, J. J., Csikasz-Nagy, A., Gonze, D., Kim, J. K., Santos, S., & Wolf, J. (2022). Time-keeping and decision-making in living cells: Part II. *Interface Focus*, 12(4), 20220024. doi:10.1098/rsfs.2022.0024

Tyson, J. J., Csikasz-Nagy, A., Gonze, D., Kim, J. K., Santos, S., & Wolf, J. (2022). Time-keeping and decision-making in living cells: Part I. *Interface Focus*, 12(3), 20220011. doi:10.1098/rsfs.2022.0011

Theys, N., Lerot, C., Brenot, H., Van Gent, J., De Smedt, I., Clarisse, L., Burton, M., Varnam, M., Hayer, C. C., Esse, B., & Van Roozendaal, M. (2022). Improved retrieval of SO₂ plume height from TROPOMI using an iterative Covariance-Based Retrieval Algorithm. *Atmospheric Measurement Techniques*, 15(16), 4801-4817. doi:10.5194/amt-15-4801-2022

Coppieters' T Wallant, K., & Martens, C. (2022). Hydrogen-deuterium exchange coupled to mass spectrometry: A multifaceted tool to decipher the molecular mechanism of transporters. *Biochimie*. doi:10.1016/j.biochi.2022.08.014

Retout, M., Cornelio, B., Bruylants, G., & Jabin, I. (2022). Bifunctional Calix[4]arene-Coated Gold Nanoparticles for Orthogonal Conjugation. *Langmuir*, 38, 9301-9309. doi:https://pubs.acs.org/doi/10.1021/acs.langmuir.2c01122

Sorgho, A., Bougouma, M., De Leener, G., Vander Steen, J., & Doneux, T. (2022). Impact of speciation on the tellurium electrochemistry in choline chloride-based deep eutectic solvents. *Electrochemistry communications*, 140, 107327. doi:10.1016/j.elecom.2022.107327

Lambeets, S., Cardwell, N., Onyango, I., Wirth, M. G., Teng, J., Orren, G. J., Devaraj, A., Visart de Bocarmé, T., McEwen, J.-S., & Perea, D. D. (2022). Dynamic observation of electro-assisted Fe oxidation by Operando Atom Probe. *Microscopy and microanalysis*, 28, 724-725. doi:10.1017/S143192762200335X

Asher, M., Jouclas, R., Bardini, M., Diskin-Posner, Y., Kahn, N., Korobko, R., Kennedy, A. R., Silva De Moraes, L., Schweicher, G., Liu, J., Beljonne, D., Geerts, Y., & Yaffe, O. (2022). Chemical modifications suppress anharmonic effects in the lattice dynamics of organic semiconductors. *ACS Materials Au*, 2(6), 699–708. doi:10.1021/acsmaterialsau.2c00020

Fortems-Cheiney, A., Dufour, G., Foret, G., Siour, G., Van Damme, M., Coheur, P., Clarisse, L., Clerbaux, C., & Beekmann, M. (2022). Understanding the Simulated Ammonia Increasing Trend from 2008 to 2015 over Europe with CHIMERE and Comparison with IASI Observations. *Atmosphere*, 13(7), 1101. doi:10.3390/atmos13071101

Siefert, E., Hua, H. A. B., & Brau, F. (2022). Capillary coalescence of two partially immersed slender structures. *Extreme mechanics letters*, 55, 101823. doi:10.1016/j.eml.2022.101823

Siragusa, F., Habets, T., Mereau, R., Evano, G., Grignard, B., & Detrembleur, C. (2022). Catalyst-Free Approach for the Degradation of Bio- and CO₂-Sourced Polycarbonates: A Step toward a Circular Plastic Economy. *ACS Sustainable Chemistry and Engineering*, 10, 8863–8875. doi:10.1021/acssuschemeng.2c01891

Wei, J., Brau, F., Damman, P., Draux, A., Hua, H. A. B., Wu, Z., & Wu, J. (2022). Trade-off mechanism of honey bee sucking and lapping. *Soft matter*. doi:10.1039/d2sm00361a

Sorgho, A., Mernissi Cherigui, E. A., Bougouma, M., Aldibaja, F. K., Nisol, B., Reniers, F., Buess Herman, C., & Doneux, T. (2022). Electrochemical formation and stability of copper selenide thin films in the choline chloride-urea deep eutectic solvent at gold electrode. *Electrochimica acta*, 424, 140676. doi:10.1016/j.electacta.2022.140676

Khalighi, M., Sommeria-Klein, G., Gonze, D., Faust, K., & Lahti, L. (2022). Quantifying the impact of ecological memory on the dynamics of interacting communities. *PLoS computational biology*, 18(6), e1009396. doi:10.1371/journal.pcbi.1009396

Doneux, T. (2022). Visualisation of electrochemical processes by coupled electrochemistry and fluorescence microscopy. *Current opinion in electrochemistry*, 34, 101013. doi:10.1016/j.coelec.2022.101013

Ling, J., Bruneau-Voisine, A., Journot, G., & Evano, G. (2022). Copper-Catalyzed Carbonylative Cross-Coupling of Alkyl Iodides and Amines. *Chemistry*, 28, e202201356. doi:10.1002/chem.202201356

Gosselin, B., Retout, M., Dutour, R., Troian Gautier, L., Bevernaegie, R., Herens, S., Lefèvre, P., Denis, O., Bruylants, G., & Jabin, I. (2022). Ultrastable Silver Nanoparticles for Rapid Serology Detection of Anti-SARS-CoV-2 Immunoglobulins G. *Analytical chemistry*, 94, 7383-7390. doi:10.1021/acs.analchem.2c00870

Siragusa, F., Demarteau, J., Habets, T., Olazabal, I., Robeyns, K., Evano, G., Mereau, R., Tassaing, T., Grignard, B., Sardon, H., & Detrembleur, C. (2022). Unifying Polyaddition and On-demand Cascade Ring-Closure Depolymerization via Polymers Skeletal Editing. *Macromolecules*, 55, 4637-4646. doi:10.1021/acs.macromol.2c00696

Baguia, H., & Evano, G. (2022). Direct Perfluoroalkylation of C-H Bonds in (Hetero)arenes. *Chemistry*, 28, e202200975. doi:10.1002/chem.202200975

Behr, M., Speeckaert, N., Kurze, E. K., Morel, O., Prévost, M., Mol, A., Mahamadou Amoudou, N., Barage, M., Renaut, J., Schwab, W., El Jaziri, M., & Baucher, M. (2022). Leaf necrosis resulting from down-regulation of poplar glycosyltransferase UGT72A2. *Tree physiology*, 42(5), 1084–1099. doi:10.1093/treephys/tpab161

Tiani, R., Pojman, J., & Rongy, L. (2022). Critical Role of Layer Thickness in Frontal Polymerization. *Journal of Physical Chemistry B*, 126, 3607-3618.

Singh, A., Torres Huerta, A., Vanderlinden, T., Renier, N., Martinez Crespo, L., Tumanov, N., Wouters, J., Bartik, K., Jabin, I., & Valkenier, H. (2022). Calix[6]arenes with halogen bond donor groups as selective and efficient anion transporters. *Chemical communications*, 58, 6255-6258. doi:10.1039/d2cc008472e

Yakimchuk, D. V., Prigodich, U., Demyanov, S., Ustarroz Troyano, J., Terryn, H., Baert, K., Khubezhov, S. S., Tishkevich, D., Trukhanov, A. A., Sivakov, V., & Kaniukov, Y. (2022). Growth mechanism study of silver nanostructures in a limited volume. *Materials chemistry and physics*, 283, 126016. doi:10.1016/j.matchemphys.2022.126016

Tiani, R., & Rongy, L. (2022). Spatial and Temporal Oscillations of Surface Tension Induced by an $A + B \rightarrow C$ Traveling Front. *Frontiers in Physics*, 10, 860419. doi:10.3389/fphy.2022.860419

Stergiou, Y., Hauser, M., Comolli, A., Brau, F., De Wit, A., Schuszter, G., Papp, P., Horváth, D., Roux, C., Pimienta, V., Eckert, K., & Schwarzenberger, K. (2022). Effects of gravity modulation on the dynamics of a radial $A + B \rightarrow C$ reaction front. *Chemical engineering science*, 257, 117703. doi:10.1016/j.ces.2022.117703

De Smet, G., Bai, X., Mensch, C., Sergeyev, S., Evano, G., & Maes, B. U. W. (2022). Selective Nickel-Catalyzed Hydrodeacetoxylation of Aryl Acetates. *Angewandte Chemie International Edition in English*, 61, e202201751. doi:10.1002/anie.202201751

Middleton, C., Gopalakrishnan, S. S., Berenstein, I., Knaepen, B., Tison, J.-L., & De Wit, A. (2022). Relative role of short interfacial fingers and long internally driven streamers in convective flows below growing sea ice. *Physical Review Fluids*, 7(4), 043503. doi:10.1103/PhysRevFluids.7.043503

Vohra, K., Marais, E. A., Bloss, W. J., Schwartz, J., Mickley, L. L., Van Damme, M., Clarisse, L., & Coheur, P. (2022). Rapid rise in premature mortality due to anthropogenic air pollution in fast-growing tropical cities from 2005 to 2018. *Science advances*, 8(14), abm4435. doi:10.1126/sciadv.abm4435

De Kreijger, S., Schott, O., Troian Gautier, L., Cauet, E., Hanan, G. G., & Elias, B. (2022). Red Absorbing Cyclometalated Ir(III) Diimine Photosensitizers Competent for Hydrogen Photocatalysis. *Inorganic chemistry*, 61(13), 5245-5254. doi:10.1021/acs.inorgchem.1c03727

Safieddine, S., Clerbaux, C., Clarisse, L., Whitburn, S., & Eltahir, E. E. (2022). Present and future land surface and wet bulb temperatures in the Arabian Peninsula. *Environmental Research Letters*, 17(4), 044029. doi:10.1088/1748-9326/ac507c

Koukouli, M., Michailidis, K., Hedelt, P., Taylor, I. I., Inness, A., Clarisse, L., Balis, D., Efremenko, D. D., Loyola, D., Grainger, R. G., & Retscher, C. (2022). Volcanic SO₂ layer height by TROPOMI/S5P: evaluation against IASI/MetOp and CALIOP/CALIPSO observations. *Atmospheric chemistry and physics*, 22(8), 5665-5683. doi:10.5194/acp-22-5665-2022

Pozzer, A., Reifenberg, S. S., Kumar, V., Franco, B., Kohl, M., Taraborrelli, D., Gromov, S. S., Ehrhart, S., Jöckel, P., Sander, R., Fall, V., Rosanka, S., Karydis, V., Akritidis, D., Emmerichs, T., Crippa, M., Guizzardi, D., Kaiser, J., Clarisse, L., Kiendler-Scharr, A., Tost, H., & Tsimpidi, A. (2022). Simulation of organics in the atmosphere: evaluation of EMACv2.54 with the Mainz Organic Mechanism (MOM) coupled to the ORACLE (v1.0) submodel. *Geoscientific Model Development*, 15(6), 2673-2710. doi:10.5194/gmd-15-2673-2022

Demaude, A., Baert, K., Petitjean, D., Goormaghtigh, E., Hauffman, T., Gordon, M. J., Reniers, F., et al. (2022). Simple and Scalable Chemical Surface Patterning via Direct Deposition from Immobilized Plasma Filaments in a Dielectric Barrier Discharge. *Advanced Science*.

Jouclas, R., Liu, J., Volpi, M., Silva De Moraes, L., Garbay, G., McIntosh, N., Bardini, M., Lemaury, V., Vercoeur, A., Gatsios, C., Modesti, F., Turetta, N., Beljonne, D., Cornil, J., Kennedy, A. R., Koch, N., Erk, P., Samori, P., Schweicher, G., & Geerts, Y. (2022). Dinaphthotetrathienoacenes: Synthesis, Characterization, and Applications in Organic Field-Effect Transistors. *Advanced Science*, 9(19), 2105674. doi:10.1002/adv.202105674

Robert, C., Prista von Bonhorst, F., De Decker, Y., Dupont, G., & Gonze, D. (2022). Initial source of heterogeneity in a model for cell fate decision in the early mammalian embryo. *Interface Focus*, 12, 20220010.

Hao, Y., Velpula, G., Kaltenecker, M., Bodlos, W. R., Vibert, F., Mali, K. S., De Feyter, S., Resel, R., Geerts, Y., Van Aert, S., Beljonne, D., & Lazzaroni, R. (2022). From 2D to 3D: Bridging Self-Assembled Monolayers to a Substrate-Induced Polymorph in a Molecular Semiconductor. *Chemistry of materials*, 34(5), 2238-2248. doi:10.1021/acs.chemmater.1c04038

Panchal, V., Dobryden, I., Hangen, U. U., Simatos, D., Spalek, L. L., Jacobs, I. E., Schweicher, G., Claesson, P. M., & Venkateshvaran, D. (2022). Mechanical Properties of Organic Electronic Polymers on the Nanoscale. *Advanced Electronic Materials*, 8(3), 2101019. doi:10.1002/aem.202101019

Bouillon, M. M., Safieddine, S., Whitburn, S., Clarisse, L., Aires, F. F., Pellet, V. V., Lezeaux, O. O., Scott, N., Doutriaux-Boucher, M., & Clerbaux, C. (2022). Time evolution of temperature profiles retrieved from 13 years of infrared atmospheric sounding interferometer (IASI) data using an artificial neural network. *Atmospheric Measurement Techniques*, 15(6), 1779-1793. doi:10.5194/amt-15-1779-2022

Jiang, J., Teunens, T., Denuit, L., Tisaun, J., & Moucheron, C. (2022). Polypyridinic ruthenium(II) complexes and their use as probes and photoreactive agents for G-quadruplexes labelling. *Molecules*, 27, 1541, 1-48.

Lenne, Q., Retout, M., Gosselin, B., Bruylants, G., Jabin, I., Hamon, J., Lagrost, C., & Leroux, Y. (2022). Highly stable silver nanohybrid electrocatalysts for the oxygen reduction reaction. *Chemical communications*, 58, 3334-3337. doi:10.1039/D2CC00637E

Hadefi, A., Leprovost, M., Thulliez, M., Bastin, O., Lefort, A., Libert, F., Nonclercq, A., Delchambre, A., Reniers, F., Devière, J., & Garcia, M.-I. (2022). Cold atmospheric plasma differentially affects cell renewal and differentiation of stem cells and APC-deficient-derived tumor cells in intestinal organoids. *Cell death discovery*, 8(1). doi:10.1038/s41420-022-00835-7

Turetta, N., Stoeckel, M.-A., Furlan de Oliveira, R., Devaux, F., Greco, A., Cendra, C., Gullace, S., Gicevicius, M., Chattopadhyay, B., Liu, J., Schweicher, G., Siringhaus, H., Salleo, A., Bonn, M., Backus, E. H., Geerts, Y., & Samorì, P. (2022). High-Performance Humidity Sensing in pi-conjugated molecular assemblies through the Engineering of Electron/Proton Transport and Device Interfaces. *Journal of the American Chemical Society*, 144(6), 2546–2555. doi:10.1021/jacs.1c10119

Baguia, H., & Evano, G. (2022). Copper-Catalyzed Direct Perfluoroalkylation of Heteroarenes. *Chemistry*, 27, e202103599. doi:10.1002/chem.202103599

Gil, D., Diercks, B. P., Guse, A. A., & Dupont, G. (2022). Three-Dimensional Model of Sub-Plasmalemmal Ca²⁺ Microdomains Evoked by T Cell Receptor/CD3 Complex Stimulation. *Frontiers in Molecular Biosciences*, 9, 811145. doi:10.3389/fmolb.2022.811145

Prista von Bonhorst, F., Gall, D., & Dupont, G. (2022). Impact of β -Amyloids Induced Disruption of Ca²⁺ Homeostasis in a Simple Model of Neuronal Activity. *Cells*, 11(4), 615. doi:10.3390/cells11040615

Aerts, A., Kockaert, P., Gorza, S.-P., Brown, A., Vander Auwera, J., & Vaeck, N. (2022). Laser control of a dark vibrational state of acetylene in the gas phase—Fourier transform pulse shaping constraints and effects of decoherence. *The Journal of Chemical Physics*, 156(8), 084302. doi:10.1063/5.0080332

Trevelyan, P., De Wit, A., & Kent, J. (2022). Rayleigh-Taylor instability of classical diffusive density profiles for miscible fluids in porous media: a linear stability analysis. *Journal of engineering mathematics*, 132, 7. doi:10.1007/s10665-021-10181-9

Stergiou, Y., Hauser, M. J. B., De Wit, A., Schuszter, G., Horváth, D., Eckert, K., & Schwarzenberger, K. (2022). Chemical flowers: Buoyancy-driven instabilities under modulated gravity during a parabolic flight. *Physical Review Fluids*, 7, 110503.

Lucena, R. M., Pontès, J., De Wit, A., Anjos, G., & Mangiavacchi, N. (2022). Linear stability analysis and nonlinear simulations of convective dissolution in an inclined porous layer between impermeable surfaces. *Chaos*, 32, 113110.

Tidiga, M., Berthet, G., Jégou, F., Kloss, C., Bègue, N., Vernier, J. P., Renard, J.-B., Bossolasco, A., Clarisse, L., Taha, G., Portafaix, T., Deshler, T., Wienhold, F. G., Godin

Beekmann, S., Payen, G., Metzger, J., Duflot, V., & Marquestaut, N. (2022). Variability of the Aerosol Content in the Tropical Lower Stratosphere from 2013 to 2019: Evidence of Volcanic Eruption Impacts. *Atmosphere*, 13(2), 250. doi:10.3390/atmos13020250

Thilmany, P., Guarnieri-Ibáñez, A., Jacob, C., Lacour, J., & Evano, G. (2022). Straightforward Synthesis of Indenes by Gold-Catalyzed Intramolecular Hydroalkylation of Ynamides. *ACS Organic & Inorganic Au*, 2, 53-58. doi:10.1021/acscorginorgau.1c00021

Jacob, C., Baguia, H., Dubart, A., Oger, S., Thilmany, P., Beaudelot, J., Deldaele, C., Perusko, S., Landrain, Y., Michelet, B., Neale, S., Romero, E., Moucheron, C., Van Speybroeck, V., Theunissen, C., & Evano, G. (2022). A General Synthesis of Azetidines by Copper-Catalysed Photoinduced anti-Baldwin Radical Cyclization of Ynamides. *Nature communications*, 13, 560. doi:10.1038/s41467-022-28098-x

De Leener, G., Over, D., Reinaud, O., & Jabin, I. (2022). Turning on anion and betaine hosting by a small structural change of a biomimetic cavity: a case study. *Supramolecular chemistry*, 33, 370-379. doi:10.1080/10610278.2021.2011890

Pinto Corujo, M., Olamoyesan, A., Tukova, A., Ang, D., Goormaghtigh, E., Peterson, J., Sharov, V., Chmel, N., & Rodger, A. (2022). SOMSpec as a General Purpose Validated Self-Organising Map Tool for Rapid Protein Secondary Structure Prediction From Infrared Absorbance Data. *Frontiers in chemistry*, 9, 784625. doi:10.3389/fchem.2021.784625

Cacciani, P., Hermák, P., Vander Auwera, J., & Campargue, A. (2022). The ammonia absorption spectrum between 3900 and 4700 cm⁻¹. *Journal of quantitative spectroscopy & radiative transfer*, 277, 107961. doi:10.1016/j.jqsrt.2021.107961

Gordon, I., Rothman, L., Hargreaves, R., Hashemi, R., Karlovets, E., Skinner, F., Conway, E., Hill, C., Kochanov, R., Tan, Y., Wcisłowski, P., Finenko, A., Nelson, K., Bernath, P. F., Birk, M., Boudon, V., Campargue, A., Chance, K., Coustenis, A., Drouin, B. J., Flaud, J.-M., Gamache, R., Hodges, J., Jacquemart, D., Mlawer, E., Nikitin, A. V., Perevalov, V., Rotger, M., Tennyson, J., Toon, G. C., Tran, H., Tyuterev, V., Adkins, E., Baker, A., Barbe, A., Cané, E., Császár, A. G., Dudaryonok, A., Egorov, O., Fleisher, A., Fleurbaey, H., Foltynowicz, A., Furtenbacher, T., Harrison, J., Hartmann, J., Horneman, V., Huang, X., Karman, T., Karns, J., Kassi, S., Kleiner, I., Kofman, V., Kwabia-Tchana, F., Lavrentieva, N. N., Lee, T., Long, D., Lukashetskaya, A., Lyulin, O., Makhnev, V. Y., Matt, W., Massie, S., Melosso, M., Mikhailenko, S., Mondelain, D., Müller, H. S. P., Naumenko, O., Perrin, A., Polyansky, O. L., Raddaoui, E., Raston, P., Reed, Z., Rey, M., Richard, C., Tóbiás, R., Sadiék, I., Schwenke, D., Starikova, E., Sung, K., Tamassia, F., Tashkun, S., Vander Auwera, J., Vasilenko, I., Vigasin, A., Villanueva, G. L., Vispoel, B., Wagner, G., Yachmenev, A. Y. A., & Yurchenko, S. (2022). The HITRAN2020 molecular spectroscopic database. *Journal of quantitative spectroscopy & radiative transfer*, 277, 107949. doi:10.1016/j.jqsrt.2021.107949

Kaltenegger, M., Hofer, S., Resel, R., Werzer, O., Riegler, H., Simbrunner, J., Winkler, C., Geerts, Y., & Liu, J. (2022). Engineering of a kinetically driven phase of phenoxazine by surface crystallisation. *CrystEngComm*, 24(27), 4921-4931. doi:10.1039/D2CE00479H

Pandey, P., Demitri, N., Gigli, L., James, A. M., Devaux, F., Geerts, Y., Modena, E., & Maini, L. (2022). Discovering Crystal Forms of the Novel Molecular Semiconductor OEG-BTBT. *Crystal growth & design*, 22(3), 1680-1690. doi:10.1021/acs.cgd.1c01203

Kaltenegger, M., Delaive, L., Gali, S. M., Brocorens, P., Werzer, O., Riegler, H., Geerts, Y., Lazzaroni, R., Resel, R., & Liu, J. (2022). Molecular Packing of Phenoxazine: A Combined Single-Crystal/Crystal Structure Prediction Study. *Crystal growth & design*, 22(3), 1548-1553. doi:10.1021/acs.cgd.1c00691

Bonsir, M., Kennedy, A. R., & Geerts, Y. (2022). Synthesis and Structural Properties of Adamantane#Substituted Amines and Amides Containing an Additional Adamantane, Azaadamantane or Diamantane Moiety. *ChemistryOpen.*, e202200031. doi:10.1002/open.202200031

Yan, S., Cazorla, A., Babuji, A., Solano, E., Ruzié, C., Geerts, Y., Ocal, C., & Barrena, E. (2022). Temperature-induced polymorphism of a benzothiophene derivative: reversibility and impact on the thin film morphology. *PCCP. Physical chemistry chemical physics*, 24(39), 24562-24569. doi:10.1039/D2CP03467K

Fijahi, L., Salzillo, T., Tamayo, A., Bardini, M., Ruzié, C., Quarti, C., Beljonne, D., d'Agostino, S., Geerts, Y., & Mas-Torrent, M. (2022). Charge transfer complexes of a benzothienobenzothiophene derivative and their implementation as active layer in solution-processed thin film organic field-effect transistors. *Journal of Materials Chemistry C*, 10(18), 7319-7328. doi:10.1039/D2TC00655C

Xu, W., Zhao, Y., Wen, Z., Chang, Y., Pan, Y., Sun, Y., Ma, X., Sha, Z., Li, Z., Kang, J., Liu, L., Tang, A., Wang, K., Zhang, Y., Guo, Y., Zhang, L., Sheng, L., Zhang, X., Gu, B., Song, Y., Van Damme, M., Clarisse, L., Coheur, P., Collett, J. L., Goulding, K., Zhang, F., He, K., & Liu, X. (2022). Increasing importance of ammonia emission abatement in PM2.5 pollution control. *Science Bulletin*. doi:10.1016/j.scib.2022.07.021

Viatte, C., Abeer, R., Yamanouchi, S., Porter, W., Safieddine, S., Van Damme, M., Clarisse, L., Herrera, B., Grutter, M., Coheur, P., Strong, K., & Clerbaux, C. (2022). NH3 spatiotemporal variability over Paris, Mexico City, and Toronto, and its link to PM2.5 during pollution events. *Atmospheric chemistry and physics*, 22(19), 12907-12922. doi:10.5194/acp-22-12907-2022

den Hartog, S., Neukermans, S., Samanipour, M., Ching, H. V., Breugelmans, T., Hubin, A., & Ustaroz Troyano, J. (2022). Electrocatalysis under a magnetic lens: A combined electrochemistry and electron paramagnetic resonance review. *Electrochimica acta*, 407, 139704. doi:10.1016/j.electacta.2021.139704

2021

Retout, M., Gosselin, B., Mattiuzzi, A., Ternad, I., Jabin, I., & Bruylants, G. (2021). Peptide#Conjugated Silver Nanoparticles for the Colorimetric Detection of the Oncoprotein Mdm2 in Human Serum. *ChemPlusChem*, 87, e202100450. doi:10.1002/cplu.202100450

Ciftci, D., Martens, C., Ghani, V. V., Blanchard, S. C., Politis, A., Huysmans, G. H. M., & Boudker, O. (2021). Linking function to global and local dynamics in an elevator-type transporter. *Proceedings of the National Academy of Sciences of the United States of America*, 118(49). doi:10.1073/pnas.2025520118

Whitburn, S., Clarisse, L., Bouillon, M. M., Safieddine, S., George, M. A. R. M., Dewitte, S., De Longueville, H., Coheur, P., & Clerbaux, C. (2021). Trends in spectrally resolved

outgoing longwave radiation from 10 years of satellite measurements. *npj Climate and Atmospheric Science*, 4(1), 48. doi:10.1038/s41612-021-00205-7

Hickman, J. E., Andela, N., Dammers, E., Clarisse, L., Coheur, P., Van Damme, M., Di Vittorio, C., Ossouhou, M., Galy-Lacaux, C., Tsigaridis, K., & Bauer, S. (2021). Changes in biomass burning, wetland extent, or agriculture drive atmospheric NH₃ trends in select African regions. *Atmospheric chemistry and physics*, 21(21), 16277-16291. doi:10.5194/acp-21-16277-2021

Aydogan, A., Bangle, R., De Kreijger, S., Dickenson, J. J., Singleton, M. M., Cauet, E., Cadranel, A., Meyer, G. J., Elias, B., Sampaio, R. R., & Troian Gautier, L. (2021). Mechanistic investigation of a visible light mediated dehalogenation/cyclisation reaction using iron(III), iridium(III) and ruthenium(II) photosensitizers. *Catalysis science & technology*, 11(24), 8037-8051. doi:10.1039/d1cy01771c

Chen, Q., Song, B., Li, X., Wang, R., Wang, S., Xu, S., Reniers, F., & Lam, C. H. (2021). Enhancing the Properties of Photocatalysts via Nonthermal Plasma Modification: Recent Advances, Treatment Variables, Mechanisms, and Perspectives. *Industrial & engineering chemistry research*, 60(47), 16813-16826. doi:10.1021/acs.iecr.1c03062

Draux, A., Hua, H. A. B., Damman, P., & Brau, F. (2021). Relaxation dynamics of a flexible rod in a fluid. *Physical Review Fluids*, 6(11), 114102. doi:10.1103/PhysRevFluids.6.114102

Barzakh, A. A., Andreyev, A., Raison, C., Cubiss, J., Van Duppen, P., Péru, S., Hilaire, S., Goriely, S., Andel, B., Antalic, S., Al Monthery, M., Berengut, J., Bieron, J., Bissell, M., Borschevsky, A., Chrysalidis, K., Cocolios, T., Day Goodacre, T., Dognon, J.-P., Elantkowska, M., Eliav, E., Farooq-Smith, G., Fedorov, D., Fedosseev, V. V., Gaffney, L., Garcia Ruiz, R., Godefroid, M., Granados, C., Harding, R., Heinke, R., Huyse, M., Karls, J., Larmonier, P., Li, J., Lynch, K., Maison, D., Marsh, B. A., Molkanov, P., Mosat, P., Oleynichenko, A., Panteleev, V., Pyykkö, P., Reitsma, M., Rezyunkina, K., Rossel, R., Rothe, S., Ruczkowski, J., Schiffmann, S., Seiffert, C., Seliverstov, M., Sels, S., Skripnikov, L., Stryczyk, M., Studer, D., Verlinde, M., & Zaitsevskii, A. (2021). Large Shape Staggering in Neutron-Deficient Bi Isotopes. *Physical review letters*, 127, 192501. doi:10.1103/PhysRevLett.127.192501

Rossi, A. A., Riley, A. M., Dupont, G., Rahman, T., Potter, B. V. L., & Taylor, C. C. (2021). Quantal Ca²⁺ release mediated by very few IP₃ receptors that rapidly inactivate allows graded responses to IP₃. *Cell reports*, 37(5), 109932. doi:10.1016/j.celrep.2021.109932

Farji, A., Aroui, H., & Vander Auwera, J. (2021). Air-induced collisional parameters in the #3 band of methane. *Journal of quantitative spectroscopy & radiative transfer*, 275, 107878. doi:10.1016/j.jqsrt.2021.107878

Abeed, R., Clerbaux, C., Clarisse, L., Van Damme, M., Coheur, P., & Safieddine, S. (2021). A space view of agricultural and industrial changes during the Syrian civil war. *Elementa: Science of the Anthropocene*, 9(1). doi:10.1525/elementa.2021.000041

del Alamo, D., Govaerts, C., & Mchaourab, H. H. (2021). AlphaFold2 predicts the inward-facing conformation of the multidrug transporter LmrP. *Proteins*. doi:10.1002/prot.26138

Theys, N., Fioletov, V., Li, C., De Smedt, I., Lerot, C., McLinden, C. C., Krotkov, N., Griffin, D., Clarisse, L., Hedelt, P., Loyola, D., Wagner, T., Kumar, V., Innes, A., Ribas, R., Hendrick, F., Vlietinck, J., Brenot, H., & Van Roozendael, M. (2021). A sulfur dioxide Covariance-Based Retrieval Algorithm (COBRA): application to TROPOMI reveals new emission sources. *Atmospheric chemistry and physics*, 21(22), 16727-16744. doi:10.5194/acp-21-16727-2021

Brenot, H., Theys, N., Clarisse, L., Gent, J. V., Hurtmans, D., Vandenbussche, S., Papagiannopoulos, N., Mona, L., Virtanen, T., Uppstu, A., Sofiev, M., Bugliaro, L., Vázquez-Navarro, M., Hedelt, P., Maree Parks, M., Barsotti, S., Coltelli, M., Moreland, W., Scollo, S., Salerno, G. G., Arnold-Arias, D., Hirtl, M., Peltonen, T., Lahtinen, J., Sievers, K., Lipok, F., Rüfenacht, R., Haefele, A., Hervo, M., Wagenaar, S., Som de Cerff, W., De Laat, J., Apituley, A., Stammes, P., Laffineur, Q., Delcloo, A., Lennart, R., Rokityansky, C.-H., Vargas, A., Kerschbaum, M., Resch, C., Zopp, R., Plu, M., Peuch, V., Van Roozendael, M., & Wotawa, G. (2021). EUNADICS-AV early warning system dedicated to supporting aviation in the case of a crisis from natural airborne hazards and radionuclide clouds. *Natural hazards and earth system sciences*, 21(11), 3367-3405. doi:10.5194/nhess-21-3367-2021

Dubart, A., & Evano, G. (2021). Divergent Synthesis of alpha-Fluorinated Carbonyl and Carboxyl Derivatives by Double Electrophilic Activation of Amides. *Organic letters*, 23, 8931-8936. doi:10.1021/acs.orglett.1c03450

Dewez, D., Diacofotaki, C., & Evano, G. (2021). Ring-Closing Metathesis of N-Alkenyl-Cyanamides. *Organic chemistry frontiers*, 8, 6699-6703. doi:10.1039/D1QO01416A

Comolli, A., De Wit, A., & Brau, F. (2021). Dynamics of A + B -> C reaction fronts under radial advection in a Poiseuille flow. *Physical Review E*, 104(4), 044206. doi:10.1103/PhysRevE.104.044206

Lobry, M., Fasseaux, H., Loyez, M., Chah, K., Goormaghtigh, E., Wattiez, R., Chiavaioli, F., & Caucheteur, C. (2021). Plasmonic fiber grating biosensors demodulated through spectral envelopes intersection. *Journal of lightwave technology*. doi:10.1109/JLT.2021.3112854

Yoast, R. R., Emrich, S. S., Zhang, X., Xin, P., Arige, V., Pathak, T., Benson, C. J., Johnson, M. M., Abdelnaby, A. E., Lakomski, N., Hempel, N., Han, J. M., Dupont, G., Yule, D. D., Sneyd, J., & Trebak, M. (2021). The Mitochondrial Ca²⁺ uniporter is a central regulator of interorganellar Ca²⁺ transfer and NFAT activation. *The Journal of biological chemistry*, 279(4), 101174. doi:10.1016/j.jbc.2021.101174

Zobov, N. F., Bertin, T., Vander Auwera, J., Civiš, S., Knížek, A., Ferus, M., Ovsyannikov, R. R., Makhnev, V. Y., Tennyson, J. L., & Polyansky, O. L. (2021). The spectrum of ammonia near 0.793 μm. *Journal of quantitative spectroscopy & radiative transfer*, 273, 107838. doi:10.1016/j.jqsrt.2021.107838

Bonsir, M., Davila, C., Kennedy, A. R., & Geerts, Y. (2021). Exhaustive One#Step Bridgehead Methylation of Adamantane Derivatives with Tetramethylsilane. *European Journal of Organic Chemistry*, 2021(37), 5227-5237. doi:10.1002/ejoc.202101004

Zhang, R., & Gonze, D. (2021). Stochastic simulation of a model for circadian rhythms in plants. *Journal of theoretical biology*, 527, 110790. doi:10.1016/j.jtbi.2021.110790

Van Liefferinge, F., Krammer, E.-M., Waeytens, J., & Prévost, M. (2021). Molecular mechanism of thiamine pyrophosphate import into mitochondria: a molecular simulation study. *Journal of computer-aided molecular design*, 35(9), 987-1007. doi:10.1007/s10822-021-00414-5

Marais, E. E., Pandey, A. A., Van Damme, M., Clarisse, L., Coheur, P., Shephard, M. W., Cady-Pereira, K., Misselbrook, T., Zhu, L., Luo, G., & Yu, F. (2021). UK Ammonia Emissions Estimated With Satellite Observations and GEOS-Chem. *Journal of Geophysical Research: Atmospheres*, 126(18), e2021JD035237. doi:10.1029/2021JD035237

Mahieu, E., Fischer, E. V., Franco, B., Palm, M., Wizenberg, T., Smale, D., Clarisse, L., Clerbaux, C., Coheur, P., Hannigan, J. W., Lutsch, E., Notholt, J., Cantos, I. P., Prignon, M., Servais, C., & Strong, K. (2021). First retrievals of peroxyacetyl nitrate (PAN) from ground-based FTIR solar spectra recorded at remote sites, comparison with model and satellite data. *Elementa (Washington, D.C.)*, 9(1), 1. doi:10.1525/elementa.2021.00027

Aydogan, A., Bangle, R., Cadranet, A., Turlington, M. M., Conroy, D. D., Cauet, E., Singleton, M. M., Meyer, G. J., Sampaio, R. R., Elias, B., & Troian Gautier, L. (2021). Accessing Photoredox Transformations with an Iron(III) Photosensitizer and Green Light. *Journal of the American Chemical Society*, 143(38), 15661-15673. doi:10.1021/jacs.1c06081

Nyssen, N., Ajami, D., Ardelean, A., Desroches, F., Li, J., Luhmer, M., Reinaud, O., & Jabin, I. (2021). Closing a Calix[6]arene-Based Funnel Zn²⁺ Complex at Its Large Rim Entrance: Consequences on Metal Ion Affinity and Host-Guest Properties. *Journal of organic chemistry*, 86(17), 12075-12083. doi:10.1021/acs.joc.1c01418

Vanhaverbeke, C., Touboul, D., Elie, N., Prévost, M., Meunier, C. C., Michelland, S. S., Cunin, V. V., Ma, L., Vermijlen, D., Delporte, C., Pochet, S., Le Gouellec, A. A., Sève, M. M., Van Antwerpen, P., & Souard, F. (2021). Untargeted metabolomics approach to discriminate mistletoe commercial products. *Scientific report*, 11, 10.1038/s41598-021-93255-z, 14205.

Budroni, M., Rossi, F., & Rongy, L. (2021). From Transport Phenomena to Systems Chemistry: Chemohydrodynamic Oscillations in A + B → C Systems. *ChemSystemsChem*, 3, e2100023.

Scholl, D., Sigoillot, M., Overtus, M., Colomer Martinez, R., Martens, C., Wang, Y. Y., Pardon, E., Laeremans, T., Garcia-Pino, A., Steyaert, J., Sheppard, D. N., Hendrix, J., & Govaerts, C. (2021). A Topological Switch in the Cystic Fibrosis Transmembrane Conductance Regulator Modulates Channel Activity and Sensitivity to Disease-Causing Mutation. *Nature Chemical Biology*. doi:10.1038/s41589-021-00844-0

Bègue, N., Benchérif, H., Jégou, F., Vérèmes, H., Khaykin, S., Kryzstofiak, G., Portafaix, T., Duflot, V., Baron, A., Berthet, G., Kloss, C., Payen, G., Keckhut, P., Coheur, P., Clerbaux, C., Smale, D., Robinson, J. P., Querel, R., & Smale, P. (2021). Transport and

variability of tropospheric ozone over oceania and southern pacific during the 2019–20 australian bushfires. *Remote Sensing*, 13(16), 3092. doi:10.3390/rs13163092

Stavrakou, T., Muller, J. F., Bauwens, M., Doumbia, T., Elguindi, N., Darras, S., Granier, C., De Smedt, I., Lerot, C., Van Roozendaal, M., Franco, B., Clarisse, L., Clerbaux, C., Coheur, P., Liu, Y., Wang, T., Shi, X., Gaubert, B., Tilmes, S., & Brasseur, G. (2021). Atmospheric impacts of COVID-19 on NO_x and VOC levels over China based on TROPOMI and IASI satellite data and modeling. *Atmosphere*, 12(8), 946. doi:10.3390/atmos12080946

Goldbeter, A., & Leloup, J.-C. (2021). From circadian clock mechanism to sleep disorders and jet lag: Insights from a computational approach. *Biochemical pharmacology.*, 114482. doi:10.1016/j.bcp.2021.114482

Hickman, J. E., Andela, N., Tsigaridis, K., Galy-Lacaux, C., Ossouhou, M., Dammers, E. D. E., Van Damme, M., Clarisse, L., & Bauer, S. S. (2021). Continental and Ecoregion-Specific Drivers of Atmospheric NO₂ and NH₃ Seasonality Over Africa Revealed by Satellite Observations. *Global biogeochemical cycles*, 35(8), e2020GB006916. doi:10.1029/2020GB006916

Thulliez, M., Bastin, O., Nonclercq, A., Delchambre, A., & Reniers, F. (2021). Gel models to assess distribution and diffusion of reactive species from cold atmospheric plasma: an overview for plasma medicine applications. *Journal of physics. D, Applied physics*, 54(46), 463001, 23. doi:10.1088/1361-6463/ac1623

Brunetti, E., Marcelis, L., Zhurkin, F., Luhmer, M., Jabin, I., Reinaud, O., & Bartik, K. (2021). A Water Molecule Triggers Guest Exchange at a Mono#zinc Centre Confined in a Biomimetic Calixarene Pocket: a Model for Understanding Ligand Stability in Zn Proteins. *Chemistry*, 27(55), 13730-13738. doi:https://doi.org/10.1002/chem.202102184

Retout, M., Jabin, I., & Bruylants, G. (2021). Synthesis of Ultrastable and Bioconjugable Ag, Au, and Bimetallic Ag_Au Nanoparticles Coated with Calix[4]arenes. *ACS Omega*, 6(30), 19675-19684. doi:10.1021/acsomega.1c02327

Delahaye, T., Armante, R., Scott, N., Jacquinet-Husson, N., Chédin, A., Crépeau, L., Crevoisier, C., Douet, V., Perrin, A., Barbe, A., Boudon, V., Campargue, A., Coudert, L. C. L., Ebert, V., Flaud, J. M., Gamache, R., Jacquemart, D., Jolly, A., Kwabia-Tchana, F., Kyuberis, A., Li, G., Lyulin, O., Manceron, L., Mikhailenko, S., Moazzen-Ahmadi, N., Müller, H. H., Naumenko, O. V., Nikitin, A. V., Perevalov, V., Richard, C., Starikova, E., Tashkun, S., Tyuterev, V. V., Vander Auwera, J., Vispoel, B., Yachmenev, A. Y. A., & Yurchenko, S. (2021). The 2020 edition of the GEISA spectroscopic database. *Journal of Molecular Spectroscopy*, 380, 111510. doi:10.1016/j.jms.2021.111510

Rosanka, S., Franco, B., Clarisse, L., Coheur, P., Pozzer, A., Wahner, A., & Taraborrelli, D. (2021). The impact of organic pollutants from Indonesian peatland fires on the tropospheric and lower stratospheric composition. *Atmospheric chemistry and physics*, 21(14), 11257-11288. doi:10.5194/acp-21-11257-2021

Clarisse, L., Van Damme, M., Hurtmans, D., Franco, B., Clerbaux, C., & Coheur, P. (2021). The Diel Cycle of NH₃ Observed From the FY-4A Geostationary Interferometric

Infrared Sounder (GIIRS). *Geophysical research letters*, 48(14), e2021GL093010. doi:10.1029/2021GL093010

Jodaitis, L., Van Oene, T., & Martens, C. (2021). Assessing the Role of Lipids in the Molecular Mechanism of Membrane Proteins. *International journal of molecular sciences*, 22(14). doi:10.3390/ijms22147267

Selezneva, E., Vercouter, A., Schweicher, G., Lemaur, V., Broch, K., Antidormi, A., Takimiya, K., Coropceanu, V., Brédas, J.-L., Melis, C., Cornil, J., & Siringhaus, H. (2021). Strong Suppression of Thermal Conductivity in the Presence of Long Terminal Alkyl Chains in Low-Disorder Molecular Semiconductors. *Advanced materials*, 33(37), 2008708. doi:10.1002/adma.202008708

Lecomte, M., Lahboubi, M., Thilmann, P., El Bouzakhi, A., & Evano, G. (2021). A General, Versatile and Divergent Synthesis of Selectively Deuterated Amines. *Chemical science*, 12, 11157-11165.

Jacob, C., Maes, B. U. W., & Evano, G. (2021). Transient Directing Groups in Metal-Organic Cooperative Catalysis. *Chemistry*, 27, 13899-13952. doi:10.1002/chem.202101598

Biswas, S., Van Steijvoort, B. F., Waeterschoot, M., Bheemireddy, N. R., Evano, G., & Maes, B. U. W. (2021). Expedient Synthesis of Bridged Bicyclic Nitrogen Scaffolds via Orthogonal Tandem Catalysis. *Angewandte Chemie International Edition in English*, 60, 21988-21996. doi:10.1002/anie.202106716

Oger, S., Baguia, H., Phan, T.-A., Teunens, T., Beudelot, J., Moucheron, C., & Evano, G. (2021). [Cu(bcp)(DPEphos)]⁺: A Versatile and Efficient Copper-Based Photoredox Catalyst and Photosensitizer. *SynOpen*, 5, 141-144. doi:10.1055/a-1504-6972

Derenne, A., Derfoufi, K.-M., Cowper, B., Delporte, C., Butré, C. C., & Goormaghtigh, E. (2021). Analysis of Glycoproteins by ATR-FTIR Spectroscopy: Comparative Assessment. *Methods in molecular biology*, 2271, 361-374. doi:10.1007/978-1-0716-1241-5_25

Corradini, S., Guerrieri, L., Brenot, H., Clarisse, L., Merucci, L., Pardini, F., Prata, A. J., Realmuto, V. V., Stelitano, D., & Theys, N. (2021). Tropospheric volcanic so₂ mass and flux retrievals from satellite. The etna december 2018 eruption. *Remote Sensing*, 13(11), 2225. doi:10.3390/rs13112225

Tamayo, A., Hofer, S., Salzillo, T., Ruzié, C., Schweicher, G., Resel, R., & Mas-Torrent, M. (2021). Mobility anisotropy in the herringbone structure of asymmetric Ph-BTBT-10 in solution sheared thin film transistors. *Journal of Materials Chemistry C*, 9, 7186-7193. doi:10.1039/D1TC01288F

Lechantre, A., Draux, A., Hua, H. A. B., Michez, D., Damman, P., & Brau, F. (2021). Essential role of papillae flexibility in nectar capture by bees. *Proceedings of the National Academy of Sciences of the United States of America*, 118(19), e2025513118. doi:10.1073/pnas.2025513118

Gopalakrishnan, S. S., Knaepen, B., & De Wit, A. (2021). Scalings of the mixing velocity for buoyancy-driven instabilities in porous media. *Journal of fluid mechanics*, 914, A27. doi:10.1017/jfm.2021.42

Jotkar, M. R., De Wit, A., & Rongy, L. (2021). Control of chemically driven convective dissolution by differential diffusion effects. *Physical Review Fluids*, 6(5), 053504. doi:10.1103/PhysRevFluids.6.053504

Nieto Simavilla, D., Abate, A., Liu, J., Geerts, Y., Losada Perez, P., & Napolitano, S. (2021). 1D-Confinement Inhibits the Anomaly in Secondary Relaxation of a Fluorinated Polymer. *ACS macro letters*, 10(5), 649-653. doi:10.1021/acsmacrolett.1c00220

Guo, X., Wang, R., Pan, D., Zondlo, M. A., Clarisse, L., Van Damme, M., Whitburn, S., Coheur, P., Clerbaux, C., Franco, B., Golston, L., Wendt, L., Sun, K., Tao, L., Miller, D., Mikoviny, T., Müller, M., Wisthaler, A., Tevlin, A., Murphy, J. G., Nowak, J. B., Roscioli, J. R., Volkamer, R. M., Kille, N., Neuman, J. A., Eilerman, S. J., Crawford, J. H., Yacovitch, T. I., Barrick, J., & Scarino, A. J. (2021). Validation of IASI Satellite Ammonia Observations at the Pixel Scale Using In Situ Vertical Profiles. *Journal of Geophysical Research: Atmospheres*, 126(9). doi:10.1029/2020JD033475

Franco, B., Blumenstock, T., Cho, C., Clarisse, L., Clerbaux, C., Coheur, P., De Mazière, M., De Smedt, I., Dorn, H. P., Emmerichs, T., Fuchs, H., Gkatzelis, G., Griffith, D. D., Gromov, S. S., Hannigan, J. W., Hase, F., Hohaus, T., Jones, N., Kerkweg, A., Kiendler-Scharr, A., Lutsch, E., Mahieu, E., Novelli, A., Ortega, I., Paton-Walsh, C., Pommier, M., Pozzer, A., Reimer, D., Rosanka, S., Sander, R., Schneider, M., Strong, K., Tillmann, R., Van Roozendaal, M., Vereecken, L., Vigouroux, C., Wahner, A., & Taraborrelli, D. (2021). Ubiquitous atmospheric production of organic acids mediated by cloud droplets. *Nature (London)*, 593(7858), 233-237. doi:10.1038/s41586-021-03462-x

Van Damme, M., Clarisse, L., Franco, B., Sutton, M. A., Erisman, J. W., Wichink Kruit, R. R., Van Zanten, M., Whitburn, S., Hadji-Lazaro, J., Hurtmans, D., Clerbaux, C., & Coheur, P. (2021). Global, regional and national trends of atmospheric ammonia derived from a decadal (2008-2018) satellite record. *Environmental Research Letters*, 16(5), 055017. doi:10.1088/1748-9326/abd5e0

Parracho, A. C. A. C., Safieddine, S., Lezeaux, O. O., Clarisse, L., Whitburn, S., George, M. A. R. M., Prunet, P., & Clerbaux, C. (2021). IASI-Derived Sea Surface Temperature Data Set for Climate Studies. *Earth and Space Science*, 8(5), e2020EA001427. doi:10.1029/2020EA001427

Chang, Y., Zhang, Y. L., Kawichai, S., Wang, Q., Van Damme, M., Clarisse, L., Prapamontol, T., & Lehmann, M. M. (2021). Convergent evidence for the pervasive but limited contribution of biomass burning to atmospheric ammonia in peninsular Southeast Asia. *Atmospheric chemistry and physics*, 21(9), 7187-7198. doi:10.5194/acp-21-7187-2021

Demaude, A., Inturri, R., Satriano, C., Leroy, P., & Reniers, F. (2021). Tuning the wicking and wettability properties of PET textiles by DBD or a remote atmospheric RF torch: A comparison. *Plasma processes and polymers*. doi:10.1002/ppap.202100005

Aerts, A., Vander Auwera, J., & Vaeck, N. (2021). Lindblad parameters from high resolution spectroscopy to describe collision-induced rovibrational decoherence in the

gas phase—Application to acetylene. *The Journal of Chemical Physics*, 154(14), 144308. doi:10.1063/5.0045275

Jafari, H., Delporte, C., Bernaerts, K. V., De Leener, G., Luhmer, M., Nie, L., & Shavandi, A. (2021). Development of marine oligosaccharides for potential wound healing biomaterials engineering. *Chemical Engineering Journal Advances*, 7, 100113. doi:10.1016/j.ceja.2021.100113

Tisaun, J., Laramée-Milette, B., Beckwith, J. J., Bierwagen, J., Hanan, G. G., Reber, C., Hauser, A., & Moucheron, C. (2021). Two Ru(II) Linkage Isomers with Distinctly Different Charge Transfer Photophysics. *Inorganic chemistry*, 60(6), 3677. doi:10.1021/acs.inorgchem.0c03371

Buchholz, R., Worden, H. H., Park, M., Francis, G. G., Deeter, M., Edwards, D. D., Emmons, L., Gaubert, B., Gille, J., Martínez-Alonso, S., Tang, W., Kumar, R., Drummond, J., Clerbaux, C., George, M. A. R. M., Coheur, P., Hurtmans, D., Bowman, K., Luo, M., Payne, V. V., Worden, J., Chin, M., Levy, R. R., Warner, J., Wei, Z., & Kulawik, S. S. (2021). Air pollution trends measured from Terra: CO and AOD over industrial, fire-prone, and background regions. *Remote sensing of environment*, 256, 112275. doi:10.1016/j.rse.2020.112275

Ikeda, K., Tanimoto, H., Sugita, T., Akiyoshi, H., Clerbaux, C., & Coheur, P. (2021). Model and Satellite Analysis of Transport of Asian Anthropogenic Pollution to the Arctic: Siberian and Pacific Pathways and Their Meteorological Controls. *Journal of Geophysical Research: Atmospheres*, 126(7), e2020JD033459. doi:10.1029/2020JD033459

Vohra, K., Marais, E. A., Suckra, S., Kramer, L., Bloss, W. J., Sahu, R., Gaur, A., Tripathi, S., Van Damme, M., Clarisse, L., & Coheur, P. (2021). Long-term trends in air quality in major cities in the UK and India: a view from space. *Atmospheric chemistry and physics*, 21(8), 6275-6296. doi:10.5194/acp-21-6275-2021

Pawar, P., Ghude, S. D., Jena, C., Möring, A., Sutton, M. A., Kulkarni, S., Lal, D. M., Surendran, D., Van Damme, M., Clarisse, L., Coheur, P., Liu, X., Govardhan, G., Xu, W., Jiang, J., & Adhya, T. K. (2021). Analysis of atmospheric ammonia over South and East Asia based on the MOZART-4 model and its comparison with satellite and surface observations. *Atmospheric chemistry and physics*, 21(8), 6389-6409. doi:10.5194/acp-21-6389-2021

Van 'T Veer, K., Van Alphen, S., Remy, A., Gorbanev, Y. Y. Y., De Geyter, N., Snyders, R., Reniers, F., & Bogaerts, A. A. M. B. A. (2021). Spatially and temporally non-uniform plasmas: Microdischarges from the perspective of molecules in a packed bed plasma reactor. *Journal of physics. D, Applied physics*, 54(17), 174002. doi:10.1088/1361-6463/abe15b

Budroni, M., Polo, A., Upadhyay, V., Bigaj, A., & Rongy, L. (2021). Chemo-hydrodynamic pulsations in simple batch A + B -> C systems: 2021 JCP Emerging Investigators Special Collection. *Journal of Chemical Physics*, 154, 114501.

Bauduin, S., Giuranna, M., Wolkenberg, P., Nardi, L., Daerden, F., Bouche, J., Wespes, C., Lecomte, G., Vandaele, A. C., & Coheur, P. (2021). Exploiting night-time averaged

spectra from PFS/MEX shortwave channel. Part 2: Near-surface CO retrievals. *Planetary and space science*, 199.

Sabet, N., Hassanzadeh, H., De Wit, A., & Abedi, J. (2021). Scalings of Rayleigh-Taylor Instability at Large Viscosity Contrasts in Porous Media. *Physical review letters*, 126(9), 094501. doi:10.1103/PhysRevLett.126.094501

Kaltenegger, M., Delaive, L., Gali, S. M., Brocorens, P., Werzer, O., Riegler, H., Geerts, Y., Lazzaroni, R., Resel, R., & Liu, J. (2021). Molecular Packing of Phenoxazine: A Combined Single-Crystal/Crystal Structure Prediction Study. *Crystal growth & design*, 22, 1548-1553. doi:10.1021/acs.cgd.1c00691

Pandey, P., Demitri, N., Gigli, L., James, A. M., Devaux, F., Geerts, Y., Modena, E., & Maini, L. (2021). Discovering Crystal Forms of the Novel Molecular Semiconductor OEG-BTBT. *Crystal growth & design*, 22, 1680-1690. doi:10.1021/acs.cgd.1c01203

Evangelidou, N., Balkanski, Y., Eckhardt, S., Cozic, A., Van Damme, M., Coheur, P., Clarisse, L., Shephard, M. W., Cady-Pereira, K., & Hauglustaine, D. (2021). 10-year satellite-constrained fluxes of ammonia improve performance of chemistry transport models. *Atmospheric chemistry and physics*, 21(6), 4431-4451. doi:10.5194/acp-21-4431-2021

Wang, R., Guo, X., Pan, D., Kelly, J. J., Bash, J., Sun, K., Paulot, F., Clarisse, L., Van Damme, M., Whitburn, S., Coheur, P., Clerbaux, C., & Zondlo, M. A. (2021). Monthly Patterns of Ammonia Over the Contiguous United States at 2-km Resolution. *Geophysical research letters*, 48(5), e2020GL090579. doi:10.1029/2020GL090579

Woller, A., & Gonze, D. (2021). Circadian misalignment and metabolic disorders: A story of twisted clocks. *Biology*, 10(3), 207. doi:10.3390/biology10030207

Saidani, H., Leonetti, M., Kmita, H., & Homblé, F. (2021). The open state selectivity of the bean seed vDAC depends on stigmasterol and ion concentration. *International journal of molecular sciences*, 22(6), 3034, 1-15. doi:10.3390/ijms22063034

Bauduin, S., Giuranna, M., Wolkenberg, P., Nardi, L., Daerden, F., Bouche, J., Wespes, C., Lecomte, G., Vandaele, A. C., & Coheur, P. (2021). Exploiting night-time averaged spectra from PFS/MEX shortwave channel. Part 1: Temperature retrieval from the CO₂ nu₃ band. *Planetary and space science*, 198.

Hofer, S., Unterkofler, J., Kaltenegger, M., Schweicher, G., Ruzié, C., Tamayo, A., Salzillo, T., Mas-Torrent, M., Sanzone, A., Beverina, L., Geerts, Y., & Resel, R. (2021). Molecular Disorder in Crystalline Thin Films of an Asymmetric BTBT Derivative. *Chemistry of materials*, 33(4), 1455–1461. doi:10.1021/acs.chemmater.0c04725

Bouche, J., Coheur, P., Giuranna, M., Wolkenberg, P., Nardi, L., Amoroso, M., Vandaele, A. C., Daerden, F., Neary, L., & Bauduin, S. (2021). Seasonal and Spatial Variability of Carbon Monoxide (CO) in the Martian Atmosphere From PFS/MEX Observations. *Journal of geophysical research. Planets*, 126.

Fernandes De Melo, J. R., Gutsch, A., De Caluwé, T., Leloup, J.-C., Gonze, D., Hermans, C., Webb, A., & Verbruggen, N. (2021). Magnesium maintains the length of the circadian period in *Arabidopsis*. *Plant physiology*, 185, 519-532.

Gueye, M. N., Vercouter, A., Jouclas, R., Guérin, D., Lemaury, V., Schweicher, G., Lenfant, S., Antidormi, A., Geerts, Y., Melis, C., Cornil, J., & Vuillaume, D. (2021). Thermal conductivity of benzothieno-benzothiophene derivatives at the nanoscale. *Nanoscale*, 13, 3800-3807. doi:10.1039/D0NR08619C

Richard, C., Boudon, V., Rizopoulos, A., Vander Auwera, J., & Kwabia-Tchana, F. (2021). Line positions and intensities for the #2/#4 bands of 5 isotopologues of germane near 11.5 μm . *Journal of quantitative spectroscopy & radiative transfer*, 260, 107474. doi:10.1016/j.jqsrt.2020.107474

Yamanouchi, S., Viatte, C., Strong, K., Lutsch, E., Jones, D. B. A., Clerbaux, C., Van Damme, M., Clarisse, L., & Coheur, P. (2021). Multiscale observations of NH₃ around Toronto, Canada. *Atmospheric Measurement Techniques*, 14(2), 14, 905-921. doi:10.5194/amt-14-905-2021

Chen, Y., Shen, H., Kaiser, J., Hu, Y., Capps, S. S., Zhao, S., Hakami, A., Shih, J. S., Pavur, G. G., Turner, M. M., Henze, D. D., Resler, J., Nenes, A., Napelenok, S. S., Bash, J., Fahey, K. K., Carmichael, G. G., Chai, T., Clarisse, L., Coheur, P., Van Damme, M., & Russell, A. A. (2021). High-resolution hybrid inversion of IASI ammonia columns to constrain US ammonia emissions using the CMAQ adjoint model. *Atmospheric chemistry and physics*, 21(3), 2067-2082. doi:10.5194/acp-21-2067-2021

Viatte, C., Petit, J. E., Yamanouchi, S., Van Damme, M., Doucerain, C., Germain-Piaulenne, E., Gros, V., Favez, O., Clarisse, L., Coheur, P., Strong, K., & Clerbaux, C. (2021). Ammonia and PM_{2.5} air pollution in Paris during the 2020 COVID lockdown. *Atmosphere*, 12(2), 160, 1-18. doi:10.3390/atmos12020160

Spanoudaki, D., Brau, F., & De Wit, A. (2021). Oscillatory budding dynamics of a chemical garden within a co-flow of reactants. *PCCP. Physical chemistry chemical physics*, 23(2), 1684-1693. doi:10.1039/D0CP05668E

De Longueville, H., Clarisse, L., Whitburn, S., Franco, B., Bauduin, S., Clerbaux, C., Camy-Peyret, C., & Coheur, P. (2021). Identification of Short and Long-Lived Atmospheric Trace Gases From IASI Space Observations. *Geophysical research letters*, 48.

Retout, M., Blond, P., Jabin, I., & Bruylants, G. (2021). Ultrastable PEGylated Calixarene-Coated Gold Nanoparticles with a Tunable Bioconjugation Density for Biosensing Applications. *Bioconjugate chemistry*, 32(2), 290-300. doi:10.1021/acs.bioconjchem.0c00669

Heylen, H., Devlin, C., Gins, W., Bissell, M., Blaum, K., Cheal, B., Filippin, L., Ruiz, R., Godefroid, M., Gorges, C., Holt, J., Kanellakopoulos, A., Kaufmann, S., Koszorus, König, K., Malbrunot-Ettenauer, S., Miyagi, T., Neugart, R., Neyens, G., Nörtershäuser, W., Sánchez, R., Sommer, F., Rodríguez, L. L., Xie, L., Xu, Z., Yang, X., & Yordanov, D. D. (2021). High-resolution laser spectroscopy of Al 27-32. *Physical Review C*, 103(1), 014318. doi:10.1103/PhysRevC.103.014318

Schiffmann, S., & Godefroid, M. (2021). Electronic isotope shift factors for the Ir 5d76s24F9/2#(odd,J=9/2) line at 247.587 nm. *Journal of quantitative spectroscopy & radiative transfer*, 258, 107332. doi:10.1016/j.jqsrt.2020.107332

Kapetanakis, G., Gournas, C., Prévost, M., Georis, I., & André, B. (2021). Overlapping Roles of Yeast Transporters Aqr1, Qdr2, and Qdr3 in Amino Acid Excretion and Cross-Feeding of Lactic Acid Bacteria. *Frontiers in microbiology*, 12, 752742. doi:10.3389/fmicb.2021.752742

Gil, D., Guse, A. A., & Dupont, G. (2021). Three-Dimensional Model of Sub-Plasmalemmal Ca²⁺ Microdomains Evoked by the Interplay Between ORA1 and InsP3 Receptors. *Frontiers in immunology*, 12, 659790. doi:10.3389/fimmu.2021.659790

Williaume, G., de Buyl, S., Sirour, C., Haupaix, N., Bettoni, R., Imai, K. S., Satou, Y., Dupont, G., Hudson, C., & Yasuo, H. (2021). Cell geometry, signal dampening, and a bimodal transcriptional response underlie the spatial precision of an ERK-mediated embryonic induction. *Developmental cell*, 56(21), 2966-2979.e10. doi:10.1016/j.devcel.2021.09.025

Silva De Moraes, L., Liu, J., Gopi, E., Oketani, R., Kennedy, A. R., & Geerts, Y. (2021). The Polymorphism of 2-Benzoyl-N,N-diethylbenzamide. *Crystals*, 11(8), 1004. doi:10.3390/cryst11081004

Liu, G., Liu, J., Dunn, A., Nadazdy, P., Siffalovic, P., Resel, R., Abbas, M., Wantz, G., & Geerts, Y. (2021). Directional Crystallization from the Melt of an Organic p-Type and n-Type Semiconductor Blend. *Crystal growth & design*, 21(9), 5231-5239. doi:10.1021/acs.cgd.1c00570

Hofer, S., Hofer, A., Simbrunner, J., Ramsey, M., Sterrer, M., Sanzone, A., Beverina, L., Geerts, Y., & Resel, R. (2021). Phase Transition toward a Thermodynamically Less Stable Phase: Cross-Nucleation due to Thin Film Growth of a Benzothieno-benzothiophene Derivative. *The Journal of Physical Chemistry Part C: Nanomaterials and Interfaces*, 125(51), 28039-28047. doi:10.1021/acs.jpcc.1c06610

Liu, J., Liu, G., Song, Z., Kaltenecker, M., Silva De Moraes, L., Gopi, E., Napolitano, S., & Geerts, Y. (2021). Memory Effect and Crystallization of (R, S)-2-Chloromandelic Acid Glass. *The Journal of Physical Chemistry. B*, 125(48), 13339-13347. doi:10.1021/acs.jpcc.1c07749

Schweicher, G., Liu, G., Fastres, P., Resel, R., Abbas, M., Wantz, G., & Geerts, Y. (2021). Directional crystallization of C8-BTBT-C8 thin films in a temperature gradient. *Materials chemistry frontiers*, 5, 249-258. doi:10.1039/D0QM00472C

Maldonado-Pacheco, G., García-Reynoso, J. A., Stremme, W., Ruiz-Suárez, L. G., García-Yee, J. S., Clerbaux, C., & Coheur, P. (2021). Carbon monoxide emissions assessment by using satellite and modeling data: Central Mexico case study. *Atmósfera*, 34(2), 157-170. doi:10.20937/ATM.52696

Waeytens, J., Mathurin, J., Deniset-Besseau, A., Arluison, V., Bousset, L., Rezaei, H., Raussens, V., & Dazzi, A. (2021). Probing amyloid fibril secondary structures by infrared

nanospectroscopy: Experimental and theoretical considerations. *Analyst*, 146(1), 132-145. doi:10.1039/d0an01545h

Bernal, M., & Ustarroz Troyano, J. (2021). Electrodeposition of nanostructured catalysts for electrochemical energy conversion: Current trends and innovative strategies. *Current opinion in electrochemistry*, 27, 100688. doi:10.1016/j.coelec.2021.100688

Fouotsa, H., Dzoyem, J. P., Lannang, A. M., Stammeler, H. G., Mbazona, C. D., Luhmer, M., Nkengfack, A. E., Allémann, É., Delie, F., Meyer, F., & Sewald, N. (2021). Antiproliferative activity of a new xanthone derivative from leaves of *Garcinia nobilis* Engl. *Natural product research*, 35(24), 5604-5611. doi:10.1080/14786419.2020.1806270

2020

Salzillo, T., Campos, A., Babuji, A., Santiago, R., Bromley, S. S., Ocal, C., Barrena, E., Jouclas, R., Ruzié, C., Schweicher, G., Geerts, Y., & Mas-Torrent, M. (2020). Enhancing Long-Term Device Stability Using Thin Film Blends of Small Molecule Semiconductors and Insulating Polymers to Trap Surface-Induced Polymorphs. *Advanced functional materials*, 30(52), 2006115. doi:10.1002/adfm.202006115

Wacquier, B., Combettes, L., & Dupont, G. (2020). Dual dynamics of mitochondrial permeability transition pore opening. *Scientific reports*, 10(1), 3924. doi:10.1038/s41598-020-60177-1

Vet, S., Gelens, L., & Gonze, D. (2020). Mutualistic cross-feeding in microbial systems generates bistability via an Allee effect. *Scientific reports*, 10(1), 7763. doi:10.1038/s41598-020-63772-4

Pelicaen, R., Gonze, D., De Vuyst, L., & Weckx, S. (2020). Genome-scale metabolic modeling of *Acetobacter pasteurianus* 386B reveals its metabolic adaptation to cocoa fermentation conditions. *Food microbiology*, 92, 103597. doi:10.1016/j.fm.2020.103597

Tournigand, P. Y., Cigala, V., Lasota, E., Hammouti, M., Clarisse, L., Brenot, H., Prata, F., Kirchengast, G., Steiner, A. A., & Biondi, R. (2020). A multi-sensor satellite-based archive of the largest SO₂ volcanic eruptions since 2006. *Earth System Science Data*, 12(4), 3139-3159. doi:10.5194/essd-12-3139-2020

Jia, R., Martens, C., Shekhar, M., Pant, S., Pellowe, G. G., Lau, A. A., Findlay, H., Harris, N. N., Tajkhorshid, E., Booth, P. P., & Politis, A. (2020). Hydrogen-deuterium exchange mass spectrometry captures distinct dynamics upon substrate and inhibitor binding to a transporter. *Nature communications*, 11(1), 6162. doi:10.1038/s41467-020-20032-3

Lenne, Q., Mattiuzzi, A., Jabin, I., Le Poul, N., Leroux, Y., & Lagrost, C. (2020). Functionalizing Gold Nanoparticles with Calix[4]arenes Monolayers for Enhancing Selectivity and Stability in ORR Electrocatalysis. *Advanced Materials Interfaces*, 7(23), 2001557. doi:10.1002/admi.202001557

den Hartog, S., Samanipour, M., Ching, H. V., Van Doorslaer, S., Breugelmans, T., Hubin, A., & Ustarroz Troyano, J. (2020). Reactive oxygen species formation at Pt nanoparticles revisited by electron paramagnetic resonance and electrochemical analysis. *Electrochemistry communications*, 122, 106878. doi:10.1016/j.elecom.2020.106878

Mukai, M., Hirayama, Y., Watanabe, Y. Y., Schiffmann, S., Ekman, J., Godefroid, M., Schury, P., Kakiguchi, Y., Oyaizu, M., Wada, M., Jeong, S. S., Moon, J. J., Park, J.-H., Ishiyama, H., Kimura, S., Ueno, H., Ahmed, M., Ozawa, A., Watanabe, H., Kanaya, S., & Miyatake, H. (2020). In-gas-cell laser resonance ionization spectroscopy of Ir 196,197,198. *Physical Review C*, 102(5), 054307. doi:10.1103/PhysRevC.102.054307

Schiffmann, S., Filippin, L., Baye, D. J., & Godefroid, M. (2020). POLALMM: A program to compute polarizabilities for nominal one-electron systems using the Lagrange-mesh method. *Computer physics communications*, 256, 107452. doi:10.1016/j.cpc.2020.107452

González-Vélez, V., Piron, A., & Dupont, G. (2020). Calcium Oscillations in Pancreatic β -cells Rely on Noise and ATP-Driven Changes in Membrane Electrical Activity. *Frontiers in physiology*, 11, 602844. doi:10.3389/fphys.2020.602844

Thomas, C., Dehaeck, S., & De Wit, A. (2020). Effect of precipitation mineralization reactions on convective dissolution of CO₂: An experimental study. *Physical Review Fluids*, 5(11), 113505. doi:10.1103/PhysRevFluids.5.113505

Benchérif, H., Bègue, N., Pinheiro, D. K., Du Preez, D. J., Cadet, J. M., Lopes, F. J. D. S. F., Shikwambana, L., Landulfo, E., Vescovini, T., Labuschagne, C., Silva, J. J., Anabor, V., Coheur, P., Mbatha, N., Hadji-Lazaro, J., Sivakumar, V., & Clerbaux, C. (2020). Investigating the long-range transport of aerosol plumes following the amazon fires (August 2019): A multi-instrumental approach from ground-based and satellite observations. *Remote Sensing*, 12(22), 3846, 1-18. doi:10.3390/rs12223846

Fortems-Cheiney, A., Dufour, G., Dufossé, K., Couvidat, F., Gilliot, J. M., Siour, G., Beekmann, M., Foret, G., Meleux, F., Clarisse, L., Coheur, P., Van Damme, M., Clerbaux, C., & Générumont, S. (2020). Do alternative inventories converge on the spatiotemporal representation of spring ammonia emissions in France. *Atmospheric chemistry and physics*, 20(21), 13481-13495. doi:10.5194/acp-20-13481-2020

Blond, P., Bevernaegie, R., Troian Gautier, L., Lagrost, C., Hubert, J., Reniers, F., Raussens, V., & Jabin, I. (2020). Ready-to-Use Germanium Surfaces for the Development of FTIR-Based Biosensors for Proteins. *Langmuir*. doi:10.1021/acs.langmuir.0c02681

Zhang, R., Gonze, D., Hou, X., You, X., & Goldbeter, A. (2020). A Computational Model for the Cold Response Pathway in Plants. *Frontiers in physiology*, 11, 591073. doi:10.3389/fphys.2020.591073

Jacobs, L., Barroo, C., & Visart de Bocarmé, T. (2020). Surface Reconstruction of Ag and Au–Ag Model Nano-catalysts During Exposure to Oxidising Gas Atmospheres. *Topics in catalysis*. doi:10.1007/s11244-020-01365-1

Pattyn, C., Maira, N., Remy, A., Roy, N. C., Iseni, S., Petitjean, D., & Reniers, F. (2020). Potential of N₂/O₂atmospheric pressure needle-water DC microplasmas for nitrogen fixation: Nitrite-free synthesis of nitrates. *PCCP. Physical chemistry chemical physics*, 22(42), 24801-24812. doi:10.1039/d0cp03858j

Owczarek, S., Lambeets, S., Bryl, R., Barroo, C., Croquet, O., Markowski, L., & Visart de Bocarmé, T. (2020). Oxygen Adsorption, Subsurface Oxygen Layer Formation and

Reaction with Hydrogen on Surfaces of a Pt–Rh Alloy Nanocrystal. *Topics in catalysis*. doi:10.1007/s11244-020-01394-w

Jotkar, M. R., Rongy, L., & De Wit, A. (2020). Reactive convective dissolution with differential diffusivities: Nonlinear simulations of onset times and asymptotic fluxes. *Physical Review Fluids*, 5(10), 104502. doi:10.1103/PhysRevFluids.5.104502

Kuttippurath, J., Singh, A., Dash, S. S., Mallick, N., Clerbaux, C., Van Damme, M., Clarisse, L., Coheur, P., Raj, S., Abhishek, K., & Varikoden, H. (2020). Record high levels of atmospheric ammonia over India: Spatial and temporal analyses. *Science of the total environment*, 740, 139986. doi:10.1016/j.scitotenv.2020.139986

Bouzghaya, S., Amri, M., & Homblé, F. (2020). Improvement of Diabetes Symptoms and Complications by an Aqueous Extract of *Linum usitatissimum* (L.) Seeds in Alloxan-Induced Diabetic Mice. *Journal of medicinal food*, 23(10), 1077-1082. doi:10.1089/jmf.2019.0205

Van't Veer, K., Engelmann, Y., Reniers, F., & Bogaerts, A. A. M. B. A. (2020). Plasma-Catalytic Ammonia Synthesis in a DBD Plasma: Role of Microdischarges and Their Afterglows. *The Journal of Physical Chemistry Part C: Nanomaterials and Interfaces*, 124(42), 22871-22883. doi:10.1021/acs.jpcc.0c05110

Bastin, O., Thulliez, M., Servais, J., Nonclercq, A., Delchambre, A., Hadeji, A., Devière, J., & Reniers, F. (2020). Optical and Electrical Characteristics of an Endoscopic DBD Plasma Jet. *Plasma medicine*, 10(2), 10.1615/PlasmaMed.2020034526, 71-90.

Safieddine, S., Parracho, A. C. A. C., George, M. A. R. M., Aires, F. F., Pellet, V. V., Clarisse, L., Whitburn, S., Lezeaux, O. O., Thépaut, J. N., Hersbach, H. H., Radnoti, G. G., Goettsche, F. F., Martin, M., Doutriaux-Boucher, M., Coppens, D., August, T., Zhou, D. D., & Clerbaux, C. (2020). Artificial neural networks to retrieve land and sea skin temperature from IASI. *Remote Sensing*, 12(17), 2777. doi:10.3390/RS12172777

Hubin, A., & Doneux, T. (2020). Preface to the Special Issue in the honour of Claudine Buess-Herman on the occasion of her 65th anniversary. *Journal of electroanalytical chemistry*, 873, 114319. doi:10.1016/j.jelechem.2020.114319

Ulrich, G., Pfitzner, E., Hoehl, A., Liao, J.-W., Zadvorna, O., Schweicher, G., Sirringhaus, H., Heberle, J., Kästner, B., Wunderlich, J., & Venkateshvaran, D. (2020). Thermoelectric nanospectroscopy for the imaging of molecular fingerprints. *Nanophotonics*, 9(14), 4347–4354. doi:10.1515/nanoph-2020-0316

Nasrallah, I., Ravva, M. K., Broch, K., Novak, J., Armitage, J., Schweicher, G., Sadhanala, A., Anthony, J. E., Brédas, J.-L., & Sirringhaus, H. (2020). A Novel Mitigation Mechanism for Photo-Induced Trapping in an Anthradithiophene Derivative Using Additives. *Advanced Electronic Materials*, 6(9), 2000250. doi:10.1002/aelm.202000250

Lobry, M., Loyez, M., Chah, K., Hassan, E. M., Goormaghtigh, E., DeRosa, M. C., Wattiez, R., & Caucheteur, C. (2020). HER2 biosensing through SPR-envelope tracking in plasmonic optical fiber gratings. *Biomedical optics express*, 11(9), 4862-4871.

Yang, D., Klebl, D. P., Zeng, S., Sobott, F., Prévost, M., Soumillion, P., Vandenbussche, G., & Fontaine, V. (2020). Interplays between copper and Mycobacterium tuberculosis GroEL1. *Metallomics*, 12(8), 1267-1277. doi:10.1039/D0MT00101E

Whitburn, S., Clarisse, L., Bauduin, S., George, M. A. R. M., Hurtmans, D., Safieddine, S., Coheur, P., & Clerbaux, C. (2020). Spectrally resolved fluxes from IASI data: Retrieval algorithm for clear-sky measurements. *Journal of climate*, 33(16), 6971-6988. doi:10.1175/JCLI-D-19-0523.1

Bouillon, M. M., Safieddine, S., Hadji-Lazaro, J., Whitburn, S., Clarisse, L., Doutriaux-Boucher, M., Coppens, D., August, T., Jacqueline, E., & Clerbaux, C. (2020). Ten-year assessment of IASI radiance and temperature. *Remote Sensing*, 12(15), 2393. doi:10.3390/RS12152393

Martens, C., & Politis, A. (2020). A glimpse into the molecular mechanism of integral membrane proteins through hydrogen–deuterium exchange mass spectrometry. *Protein science*. doi:10.1002/pro.3853

Yakimchuk, D. D., Bundyukova, V. V., Ustarroz Troyano, J., Terryn, H., Baert, K., Kozlovskiy, A., Zdorovets, M. M., Khubezhov, S. S., Trukhanov, A. A., Trukhanov, S. V., Panina, L. L., Arzumanyan, G. G., Mamatkulov, K. K., Tishkevich, D., Kaniukov, E. E., & Sivakov, V. (2020). Morphology and Microstructure Evolution of Gold Nanostructures in the Limited Volume Porous Matrices. *Sensors*, 20(16). doi:10.3390/s20164397

Lambert, S., Bartik, K., & Jabin, I. (2020). Specific Binding of Primary Ammonium Ions and Lysine-Containing Peptides in Protic Solvents by Hexahomotrioxacalix[3]arenes. *Journal of organic chemistry*, 85(15), 10062-10071. doi:10.1021/acs.joc.0c01294

Safieddine, S., Bouillon, M. M., Paracho, A. C., Jumelet, J., Tencé, F., Pazmino, A., Goutail, F., Wespes, C., Bekki, S. S., Boynard, A., Hadji-Lazaro, J., Coheur, P., Hurtmans, D., & Clerbaux, C. (2020). Antarctic Ozone Enhancement During the 2019 Sudden Stratospheric Warming Event. *Geophysical research letters*, 47(14), e2020GL087810. doi:10.1029/2020GL087810

Turquety, S., Menut, L., Siour, G., Mailler, S., Hadji-Lazaro, J., George, M. A. R. M., Clerbaux, C., Hurtmans, D., & Coheur, P. (2020). APIFLAME v2.0 biomass burning emissions model: Impact of refined input parameters on atmospheric concentration in Portugal in summer 2016. *Geoscientific Model Development*, 13(7), 2981-3009. doi:10.5194/gmd-13-2981-2020

Debruycker, V., Hutchin, A., Masureel, M., Ficici, E., Martens, C., Legrand, P., Stein, R. A., Mchaourab, H. S., Faraldo-Gómez, J. J., Remaut, H., & Govaerts, C. (2020). An embedded lipid in the multidrug transporter LmrP suggests a mechanism for polyspecificity. *Nature structural & molecular biology*. doi:10.1038/s41594-020-0464-y

MattiuZZi, A., Lenne, Q., Carvalho Padilha, J., Troian Gautier, L., Leroux, Y., Jabin, I., & Lagrost, C. (2020). Strategies for the Formation of Monolayers From Diazonium Salts: Unconventional Grafting Media, Unconventional Building Blocks. *Frontiers in chemistry*, 8, 559. doi:10.3389/fchem.2020.00559

Bougouma, M., Keraghel, F., Sawadogo, J., Adama, K., Buess Herman, C., & Doneux, T. (2020). Caractérisation physico-chimique et électrochimique de monocristaux de $\text{Mo}_{0,75}\text{W}_{0,25}\text{Se}_2$ obtenus par croissance cristalline. *Journal de la Société ouest-africaine de chimie*, 49, 65-77.

Lukaczynska-Anderson, M., Mamme, M. H., Ceglia, A., Van Den Bergh, K., De Strycker, J., De Proft, F., Terryn, H., & Ustarroz Troyano, J. (2020). The role of hydrogen bond donor and water content on the electrochemical reduction of Ni^{2+} from Deep Eutectic Solvents - an experimental and modelling study. *PCCP. Physical chemistry chemical physics*. doi:10.1039/D0CP02408B

Renier, N., Reinaud, O., Jabin, I., & Valkenier, H. (2020). Transmembrane transport of copper(I) by imidazole-functionalised calix[4]arenes. *Chemical communications*, 56(59), 8206-8209. doi:10.1039/D0CC03555F

Schiffmann, S., Godefroid, M., Ekman, J., Jönsson, P., & Froese Fischer, C. (2020). Natural orbitals in multiconfiguration calculations of hyperfine-structure parameters. *Physical Review A*, 101(6). doi:10.1103/PhysRevA.101.062510

Waeytens, J., Van Hemelryck, V., Deniset-Besseau, A., Ruyschaert, J. M., Dazzi, A., & Raussens, V. (2020). Characterization by Nano-Infrared Spectroscopy of Individual Aggregated Species of Amyloid Proteins. *Molecules*, 25(12). doi:10.3390/molecules25122899

De Decker, Y., & Nicolis, G. (2020). On the Fokker–Planck approach to the stochastic thermodynamics of reactive systems. *Physica. A.*, 124269. doi:10.1016/j.physa.2020.124269

Kas, M., Liévin, J., Vaeck, N., & Loreau, J. (2020). Cold collisions of C^2- with Li and Rb atoms in hybrid traps. *Journal of physics. Conference series*, 1412(6), 062003. doi:10.1088/1742-6596/1412/6/062003

Urbain, X., De Ruelle, N., Dochain, A., Launoy, T., Nascimento, R. R., Kaminska, M., Stockett, M. M., Loreau, J., Liévin, J., Vaeck, N., Thomas, R. R., Schmidt, H., & Cederquist, H. (2020). Merged beam studies of mutual neutralization at subthermal collision energies. *Journal of physics. Conference series*, 1412(6), 062009. doi:10.1088/1742-6596/1412/6/062009

Mertens, J., Nisol, B., Hubert, J., & Reniers, F. (2020). Use of remote atmospheric mass spectrometry in atmospheric plasma polymerization of hydrophilic and hydrophobic coatings. *Plasma processes and polymers*. doi:10.1002/ppap.201900250

Cerfontaine, S., Troian Gautier, L., Wehlin, S. S., Loiseau, F., Cauet, E., & Elias, B. (2020). Tuning the Excited-State Deactivation Pathways of Dinuclear Ruthenium(II) 2,2'-Bipyridine Complexes Through Bridging Ligand Design. *Dalton transactions*, 49, 8096-8106.

Apra, E., Bylaska, E., De Jong, W., Govind, N., Kowalski, K., Straatsma, T., Valiev, M., Van Dam, H., Alexeev, Y., Anchell, J., Anisimov, V., Aquino, F., Atta-Fynn, R., Autschbach, J., Bauman, N., Becca, J., Bernholdt, D., Bhaskaran-Nair, K., Bogatko, S., Borowski, P., Boschen, J., Brabec, J., Bruner, A., Cauet, E., Harrison, R., Chen, C.-

Y., Chuev, G., Cramer, C. J., Daily, J., Deegan, M., Dunning, T., Dupuis, M., Dyll, K., Fann, G. I., Fischer, S., Fonari, A., Früchti, H., Gagliardi, L., et al. (2020). NWChem: Past, Present, and Future. *The Journal of Chemical Physics*, 152, 184102.

Jacobs, L., von Boehn, B., Homann, M., Barroo, C., Visart de Bocarmé, T., & Imbihl, R. (2020). On the importance of the structure in the catalytic reactivity of Au-based catalysts. *Applied surface science*, 525, 146568. doi:10.1016/j.apsusc.2020.146568

Derenne, A., Derfoufi, K.-M., Cowper, B., Delporte, C., & Goormaghtigh, E. (2020). FTIR spectroscopy as an analytical tool to compare glycosylation in therapeutic monoclonal antibodies. *Analytica chimica acta*, 1112, 62-71. doi:10.1016/j.aca.2020.03.038

Tóth, Á., Schuszter, G., Das, N. P., Lantos, E., Horváth, D., De Wit, A., & Brau, F. (2020). Effects of radial injection and solution thickness on the dynamics of confined A + B → C chemical fronts. *PCCP. Physical chemistry chemical physics*, 22(18), 10278-10285. doi:10.1039/C9CP06370F

Cardoso, S. S. S., Cartwright, J. J., #ejková, J., Cronin, L., De Wit, A., Giannerini, S., Horváth, D., Rodrigues, A., Russell, M. J., Sainz-Díaz, C. I., & Tóth, Á. (2020). Chemobionics: From self-assembled material architectures to the origin of life. *Artificial life*, 26(3), 315-326. doi:10.1162/artl_a_00323

Babuji, A., Silvestri, F., Pithan, L., Richard, A., Geerts, Y., Tessler, N., Solomeshch, O., Ocal, C., & Barrena, E. (2020). Effect of the Organic Semiconductor Side Groups on the Structural and Electronic Properties of Their Interface with Dopants. *ACS Applied Materials & Interfaces*. doi:10.1021/acsami.0c17273

Du Preez, D. J., Benchérif, H., Bègue, N., Clarisse, L., Hoffman, R. R., & Wright, C. Y. (2020). Investigating the large-scale transport of a volcanic plume and the impact on a secondary site. *Atmosphere*, 11(5), 548. doi:10.3390/atmos11050548

Roy, N. C., Pattyn, C., Remy, A., Maira, N., & Reniers, F. (2020). NO_x synthesis by atmospheric-pressure N₂/O₂ filamentary DBD plasma over water: Physicochemical mechanisms of plasma–liquid interactions. *Plasma processes and polymers*. doi:10.1002/ppap.202000087

Troian Gautier, L., Mattiuzzi, A., Reinaud, O., Lagrost, C., & Jabin, I. (2020). Use of calixarenes bearing diazonium groups for the development of robust monolayers with unique tailored properties. *Organic & biomolecular chemistry*, 18(19), 3624-3637. doi:10.1039/d0ob00070a

Fratini, S., Nikolka, M., Salleo, A., Schweicher, G., & Sirringhaus, H. (2020). Charge transport in high-mobility conjugated polymers and molecular semiconductors. *Nature materials*, 19, 491-502. doi:10.1038/s41563-020-0647-2

Senanayak, S. P., Abdi-Jalebi, M., Kamboj, V. S., Carey, R., Shivanna, R., Tian, T., Schweicher, G., Wang, J., Giesbrecht, N., Di Nuzzo, D., Beere, H. E., Docampo, P., Ritchie, D. A., Fairen-Jimenez, D., Friend, R., & Sirringhaus, H. (2020). A general approach for hysteresis-free, operationally stable metal halide perovskite field effect transistors. *Science advances*, 6(15), eaaz4948. doi:10.1126/sciadv.aaz4948

Lambeets, S., Visart de Bocarmé, T., Perea, D. D., & Kruse, N. (2020). Directional Gateway to Metal Oxidation: 3D Chemical Mapping Unfolds Oxygen Diffusional Pathways in Rhodium Nanoparticles. *The Journal of Physical Chemistry Letters*, 11(8), 3144-3151. doi:10.1021/acs.jpcllett.0c00321

Chang, Y., Clarisse, L., Van Damme, M., Tao, Y., Zou, Z., Dore, A., & Collett, J. L. (2020). Ammonia Emissions from Mudflats of River, Lake, and Sea. *ACS Earth and Space Chemistry*, 4(4), 614-619. doi:10.1021/acsearthspacechem.0c00017

Van 'T Veer, K., Reniers, F., & Bogaerts, A. A. M. B. A. (2020). Zero-dimensional modeling of unpacked and packed bed dielectric barrier discharges: The role of vibrational kinetics in ammonia synthesis. *Plasma sources science & technology*, 29(4), 045020. doi:10.1088/1361-6595/ab7a8a

Mattiuzzi, A., Troian Gautier, L., Mertens, J., Reniers, F., Bergamini, J.-F., Lenne, Q., Lagrost, C., & Jabin, I. (2020). Robust hydrophobic gold, glass and polypropylene surfaces obtained through a nanometric covalently bound organic layer. *RSC Advances*, 10(23), 13553-13561. doi:10.1039/D0RA01011A

Soma, F., Rayee, Q., Bougouma, M., Baustert, C., Buess Herman, C., & Doneux, T. (2020). Palladium Electrochemistry in the Choline Chloride-Urea Deep Eutectic Solvent at Gold and Glassy Carbon Electrodes. *Electrochimica acta*, 345, 136165. doi:10.1016/j.electacta.2020.136165

Leifer, I., Melton, C., Tratt, D. M., Buckland, K., Chang, C.-S., Clarisse, L., Franklin, M., Hall, J. L., Brian Leen, J., Lundquist, T., Van Damme, M., Vigil, S., & Whitburn, S. (2020). Estimating exposure to hydrogen sulfide from animal husbandry operations using satellite ammonia as a proxy: Methodology demonstration. *Science of the total environment*, 709, 134508. doi:10.1016/j.scitotenv.2019.134508

Schweicher, G., Garbay, G., Jouclas, R., Vibert, F., Devaux, F., & Geerts, Y. (2020). Molecular Semiconductors for Logic Operations: Dead-end or Bright Future? *Advanced materials*, 32(10), 1905909. doi:10.1002/adma.201905909

Lobry, M., Loyez, M., Hassan, E. M., Chah, K., DeRosa, M. C., Goormaghtigh, E., Wattiez, R., & Caucheteur, C. (2020). Multimodal plasmonic optical fiber grating aptasensor. *Optics express*, 28(5), 7539-7551.

Chung, H., Chen, S., Patel, B., Garbay, G., Geerts, Y., & Diao, Y. (2020). Understanding the Role of Bulky Side Chains on Polymorphism of BTBT-Based Organic Semiconductors. *Crystal growth & design*, 20(3), 1646-1654. doi:10.1021/acs.cgd.9b01372

Gonze, D., & Ruoff, P. (2020). The Goodwin Oscillator and its Legacy. *Acta biotheoretica*. doi:10.1007/s10441-020-09379-8

Uzureau, S., Lecordier, L., Uzureau, P., Hennig, D., Graversen, J. J., Homblé, F., Mfutu, P. E., Oliveira Arcolino, F., Ramos, A. R., La Rovere, R. R., Luyten, T., Vermeersch, M., Tebabi, P., Dieu, M., Cuypers, B., Deborggraeve, S., Rabant, M., Legendre, C., Moestrup, S. K., Levtchenko, E. N., Bultynck, G., Erneux, C., Perez-Morga, D., & Pays, E. (2020). APOL1 C-Terminal Variants May Trigger Kidney Disease through Interference

with APOL3 Control of Actomyosin. *Cell reports*, 30(11), 3821-3836.e13. doi:10.1016/j.celrep.2020.02.064

Lavendomme, R., Desroches, F., Moerkerke, S., Topi#, F., Wouters, J., Rissanen, K., Luhmer, M., & Jabin, I. (2020). Selective recognition of small hydrogen bond acceptors by a calix[6]arene-based molecular container. *Supramolecular chemistry*, 32, 23-29. doi:10.1080/10610278.2019.1679374

Brau, F., & De Wit, A. (2020). Influence of rectilinear vs radial advection on the yield of A + B -> C reaction fronts: A comparison. *The Journal of Chemical Physics*, 152(5), 054716. doi:10.1063/1.5135292

Ziemecka, I., Brau, F., & De Wit, A. (2020). Confined direct and reverse chemical gardens: Influence of local flow velocity on precipitation patterns. *Chaos*, 30(1), 013140. doi:10.1063/1.5128107

Franco, B., Clarisse, L., Stavrakou, T., Muller, J. F., Taraborrelli, D., Hadji-Lazaro, J., Hannigan, J. W., Hase, F., Hurtmans, D., Jones, N., Lutsch, E., Mahieu, E., Ortega, I., Schneider, M., Strong, K., Vigouroux, C., Clerbaux, C., & Coheur, P. (2020). Spaceborne Measurements of Formic and Acetic Acids: A Global View of the Regional Sources. *Geophysical research letters*, 47(4), e2019GL086239. doi:10.1029/2019GL086239

Theys, N., Volkamer, R. M., Muller, J. F., Zarzana, K. J., Kille, N., Clarisse, L., De Smedt, I., Lerot, C., Finkenzeller, H., Hendrick, F., Koenig, T. K., Lee, C., Knote, C., Yu, H., & Van Roozendael, M. (2020). Global nitrous acid emissions and levels of regional oxidants enhanced by wildfires. *Nature Geoscience*. doi:10.1038/s41561-020-0637-7

Lopez, T., Clarisse, L., Schwaiger, H., Van Eaton, A., Loewen, M., Fee, D., Lyons, J., Wallace, K., Searcy, C., Wech, A., Haney, M., Schneider, D., & Graham, N. (2020). Constraints on eruption processes and event masses for the 2016–2017 eruption of Bogoslof volcano, Alaska, through evaluation of IASI satellite SO₂ masses and complementary datasets. *Bulletin of volcanology*, 82(2), 17. doi:10.1007/s00445-019-1348-z

Brams, M., Govaerts, C., Kambara, K., Price, K., Spurny, R., Gharpure, A., Pardon, E., Evans, G. G., Bertrand, D., Lummis, S. S., Hibbs, R. R., Steyaert, J., & Ulens, C. (2020). Modulation of the erwinia ligand-gated ion channel (ELIC) and the 5-HT₃ receptor via a common vestibule site. *eLife*, 9, e51511. doi:10.7554/eLife.51511

Iablokov, V., Alekseev, S. S., Gryn, S. S., Bezverkhyy, I., Zaitsev, V., Kovarik, L., Visart de Bocarmé, T., & Kruse, N. (2020). Superior Fischer-Tropsch performance of uniform cobalt nanoparticles deposited into mesoporous SiC. *Journal of catalysis*, 383, 297-303. doi:10.1016/j.jcat.2020.01.028

Wittmann, A., Schweicher, G., Broch, K., Novak, J., Lami, V., Cornil, D., McNellis, E. R., Zadvarna, O., Venkateshvaran, D., Takimiya, K., Geerts, Y., Cornil, J., Vaynzof, Y., Sinova, J., Watanabe, S., & Sirringhaus, H. (2020). Tuning Spin Current Injection at Ferromagnet-Nonmagnet Interfaces by Molecular Design. *Physical review letters*, 124(2), 027204. doi:10.1103/PhysRevLett.124.027204

Bazzoni, M., Terenziani, F., Secchi, A., Cera, G., Jabin, I., De Leener, G., Luhmer, M., & Arduini, A. (2020). Tuning the fluorescence through reorientation of the axle in calix[6]arene-based pseudorotaxanes. *Chemistry*. doi:10.1002/chem.201905500

Zahim, S., Ajami, D., Laurent, P., Valkenier, H., Reinaud, O., Luhmer, M., & Jabin, I. (2020). Synthesis and Binding Properties of a Tren-Capped Hexahomotrioxacalix[3]arene. *ChemPhysChem*, 21(1), 83-89. doi:10.1002/cphc.201900951

Yang, D. Z., Vandenbussche, G., Vertommen, D., Evrard, D., Abskharon, R. N. N., Cavalier, J.-F., Berger, G., Canaan, S., Khan, M. S., Zeng, S., Wohlkönig, A., Prévost, M., Soumillion, P., & Fontaine, V. (2020). Methyl arachidonyl fluorophosphonate inhibits Mycobacterium tuberculosis thioesterase TesA and globally affects vancomycin susceptibility. *FEBS letters*, 594(1), 79-93. doi:10.1002/1873-3468.13555

De Meutter, J., & Goormaghtigh, E. (2020). A convenient protein library for spectroscopic calibrations. *Computational and Structural Biotechnology Journal*, 18, 1864-1876. doi:10.1016/j.csbj.2020.07.001

Gall, D., & Dupont, G. (2020). Tonic Activation of Extrasynaptic NMDA Receptors Decreases Intrinsic Excitability and Promotes Bistability in a Model of Neuronal Activity. *International Journal of Molecular Sciences (CD-ROM)*, 21(1), 206. doi:10.3390/ijms21010206

Shukla, P., & De Wit, A. (2020). Influence of the Péclet number on reactive viscous fingering. *Physical Review Fluids*, 5(1), 014004. doi:10.1103/PhysRevFluids.5.014004

De Wit, A. (2020). Chemo-Hydrodynamic Patterns and Instabilities. *Annual review of fluid mechanics*, 52, 531-555.

Dull, J. T., Wang, Y., Johnson, H., Shayegan, K., Shapiro, E., Priestley, R. D., Geerts, Y., & Rand, B. P. (2020). Thermal Properties, Molecular Structure, and Thin-Film Organic Semiconductor Crystallization. *The Journal of Physical Chemistry Part C: Nanomaterials and Interfaces*, 124(49), 27213-27221. doi:10.1021/acs.jpcc.0c09408

Viatte, C., Wang, T., Van Damme, M., Dammers, E. D. E., Meleux, F., Clarisse, L., Shephard, M. W., Whitburn, S., Coheur, P., Cady-Pereira, K., & Clerbaux, C. (2020). Atmospheric ammonia variability and link with particulate matter formation: a case study over the Paris area. *Atmospheric chemistry and physics*, 20(1), 577-596. doi:10.5194/acp-20-577-2020

Deguine, A., Petitprez, D., Clarisse, L., Gu#mundsson, S., Outes, V., Villarosa, G., & Herbin, H. (2020). Complex refractive index of volcanic ash aerosol in the infrared, visible, and ultraviolet. *Applied optics*, 59(4), 884. doi:10.1364/AO.59.000884

Thilmany, P., & Evano, G. (2020). Efficient and Divergent Synthesis of alpha-Halogenated Amides and Esters by Double Electrophilic Activation of Ynamides. *Angewandte Chemie International Edition in English*, 59, 242-246. doi:10.1002/anie.201911722

Wakuluk-Machado, A.-M., Dewez, D., Baguia, H., Imbratta, M., Echeverria, P.-G., & Evano, G. (2020). Pd(OH)2/C, a Practical and Efficient Catalyst for the Carboxylation of

Benzylic Bromides with Carbon Monoxide. *Organic process research & development*, 24, 713-723. doi:10.1021/acs.oprd.9b00402.