

Liste de publications de CHIM

Articles dans des revues avec comité de lecture

2024

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

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

Darviot, C., Gosselin, B., Martin, F., Patkovsky, 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

Gicevi#ius, 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

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

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

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., & Hauryliuk, 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., Annibaletto, J., Peng, J., Bai, R., Maes, B. U. W., Lan, Y., & Evanso, 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). doi:10.1073/pnas.2319770121

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., & Evanso, 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

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., Champiaux, 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

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

James, A. M., Gicevi#ius, 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

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

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

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

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., Bleateau, 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., Tsivar, 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

Dang, R., Jacob, 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*.

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

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

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., Mlynaczak, 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

Clarisso, 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., Evangelou, 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., Gicevi#ius, 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., & Sirringhaus, H. (2023). Effects of Processing-Induced Contamination on Organic Electronic Devices. *Small methods*, 7(11), 2300476. doi:10.1002/smtd.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(sp)- 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

Ossouhou, 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., Leherte, 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/advs.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., W#grzyn, G., Achouak, W., Wien, F., & Arluisson, 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., Šakalyt#, G., Martinkus, J., Skerniškyt#, 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

Weiβ, 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 Roozendael, M., & Schuettemeyer, 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/epjd/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., Braylants, G., Matoussi, 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/acsami.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

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., Annibaletto, 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., Williaume, 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., Evangelou, 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 rmcdhf 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., #ermák, 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 Ti 3 C 2 T 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., Kaltenegger, M., Pedrazo-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., Coppelters'T Wallant, K., Takada, H., Craig, S., Mazzucchelli, G., Zedek, S., Pichová, I. I., Atkinson, G. C., Talavera Perez, A., Martens, C., Hauryliuk, 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

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

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., Grz#dowski, 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 ^{209}Bi . *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., Thilmany, 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 CO $_2$ -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 NH $_3$ 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*. 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., Veroustraete, 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 Homooxacalixarenes 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 (NH_3) 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., Bombed, M., Martinez, D., Grélard, A., Habenstein, B., Raussens, V., Vélez, M., Wien, F., & Arluisson, 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 Roozendael, 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., Renault, 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 -> 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 -> 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., & Tsipidji, 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., Lemaur, V., Vercouter, 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/advs.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., Kaltenegger, 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/aelm.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., Sirringhaus, H., Salleo, A., Bonn, M., Backus, E. H., Geerts, Y., & Samori, 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 #-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., & Mangiacavacchi, 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/acsorginorgau.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., #ermák, 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., Wcislo, 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., Lukashevskaya, A., Lyulin, O., Makhnev, V., 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., Sadiek, 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., Abeed, 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., & Ustarroz 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