

List of publications of Gilles Bruylants

Contributions to collective works

2022

Troian Gautier, L., Mattiuzzi, A., Blond, P., Retout, M., Bruylants, G., Reinaud, O., Lagrost, C., & Jabin, I. (2022). Aryl Diazonium Salts and Related Compounds. Surface Chemistry and Applications: Modification of surfaces with calix[4]arene diazonium salts. In J. Pinson, M. M. Chehimi, & F. Mousli (Eds.), *Aryl Diazonium Salts and Related Compounds. Surface Chemistry and Applications: Modification of surfaces with calix[4]arene diazonium salt, Modification of surfaces with calix[4]arene diazonium salts* (1 ed., pp. 247-262). Springer.

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Moya, C., & Bruylants, G. (2021). Recent Advances in Elongated IONPs: From Preparation to Biomedical Applications. In *Iron Oxide Nanoparticles and their Applications*. New York: Nova science publishers.(Chemistry Research and Applications).

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2019

Lanfranco, R., Mognetti, B. M., & Bruylants, G. (2019). Achieving Selective Targeting Using Engineered Nanomaterials. In C. Demetzos & N. Pippa (Eds.), *Thermodynamics and Biophysics of Biomedical Nanosystems* (1 ed., pp. 147-182). Singapore: Springer. (Series in BioEngineering). doi:10.1007/978-981-13-0989-2_6

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Bruylants, G. (2011). Van der Waals Forces. In M. Gargaud, R. Amils, J. Cernicharo Quintanilla, H. Cleaves, W. Irvine, D. Pinti, & M. Viso (Eds.), *Encyclopedia of Astrobiology* (1 ed., pp. 1728-1729). Berlin: Springer.

Bruylants, G. (2011). Water, Solvent of Life. In M. Gargaud, R. Amils, J. Cernicharo Quintanilla, H. Cleaves, W. Irvine, & M. Viso (Eds.), *Encyclopedia of Astrobiology* (1 ed., pp. 1773-1775). Berlin: Springer.

Bruylants, G. (2011). Hydrogen Bonds. In M. Gargaud, R. Amils, J. Cernicharo Quintanilla, H. Cleaves, W. Irvine, D. Pinti, & M. Viso (Eds.), *Encyclopedia of Astrobiology* (1 ed., pp. 781-782). Berlin: Springer.

Bruylants, G. (2011). Stereochemistry. In M. Gargaud, R. Amils, J. Cernicharo Quintanilla, H. Cleaves, W. Irvine, D. Pinti, & M. Viso (Eds.), *Encyclopedia of Astrobiology* (p. 1598). Berlin: Springer.

Peer-reviewed journal articles

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Gosselin, B., Retout, M., Jabin, I., & Bruylants, G. (2023). Development of a Peptide-based Lateral Flow Assay for the Detection of the Cancer Biomarker Mdm2. *Sensors & Diagnostics*. doi:10.1039/D3SD00253E

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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

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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

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Cerdan, K., Moya, C., Van Puyvelde, P., Bruylants, G., & Brancart, J. (2022). Magnetic Self-Healing Composites: Synthesis and Applications. *Molecules*, 27(12), 3796. doi:10.3390/molecules27123796

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2020

Lanfranco, R., Jana, P. K., Bruylants, G., Cicuta, P., Mognetti, B. M., & Di Michele, L. (2020). Adaptable DNA interactions regulate surface triggered self assembly. *Nanoscale*, 12, 18616-18620. doi:10.1039/D0NR04461J

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Alexandri, C., Daniel, A., Bruylants, G., & Demeestere, I. (2020). The role of microRNAs in ovarian function and the transition toward novel therapeutic strategies in fertility preservation: from bench to future clinical application. *Human reproduction update*, 26(2), 174-196. doi:10.1093/humupd/dmz039

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Retout, M., Brunetti, E., Valkenier, H., & Bruylants, G. (2019). Limits of thiol chemistry revealed by quantitative analysis of mixed layers of thiolated-PEG ligands grafted onto gold nanoparticles. *Journal of colloid and interface science*, 557, 807-815. doi:10.1016/j.jcis.2019.09.047

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Lanfranco, R., Jana, P. K., Tunesi, L., Cicuta, P., Mognetti, B. M., Di Michele, L., & Bruylants, G. (2019). Kinetics of Nanoparticle-Membrane Adhesion Mediated by Multivalent Interactions. *Langmuir*, 35(6), 2002-2012. doi:10.1021/acs.langmuir.8b02707

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Collin, S., Parrot, A., Marcelis, L., Brunetti, E., Jabin, I., Bruylants, G., Bartik, K., & Reinaud, O. (2018). Submerging a Biomimetic Metallo-Receptor in Water for Molecular Recognition: Micellar Incorporation or Water Solubilization? A Case Study. *Chemistry*, 24(68), 17964-17974. doi:10.1002/chem.201804768

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Papers published in national and international conferences or symposium proceedings

2010

Bruylants, G., Bartik, K., & Delplancke, M.-P. (2010). Growth kinetics and controlled auto-assembly of gold nanoparticles. *Actes de conference ECNF2010: European Conference on Nano Films*(22.03.2010 - 25.03.2010: Liège, Belgium)

Active participation in international conferences and symposiums

2023

Lepeintre, V., Camerel, F., Lagrost, C., Jabin, I., & Bruylants, G. (2023). Robust Calixarene-Coated Gold Nanorods for Photothermal Therapy. Poster session presented at SFNano 2023 (4-6 December 2023: Montpellier, France).

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Van Gasse, B., Gheerardijn, V., Bruylants, G., Bartik, K., Madder, A., & Martins, J. (2010). *Investigation of the Base-Pair Opening Dynamics of a DNA:DNA Duplex Containing a T.T Mismatch*. Poster session presented at Discussion Meeting and Joint Benelux/German MR Conference(32nd) (20-23 September 2010: Münster (Germany)).

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2006

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2005

Bruylants, G. (2005). *Etude par calorimétrie à titrage isotherme (ITC) et spectroscopie de résonance magnétique nucléaire (RMN) des effets de protonation liés à l'interaction entre l'alpha-chymotrypsine et la proflavine / Gilles Bruylants* (Unpublished doctoral dissertation). Université libre de Bruxelles, Faculté des sciences appliquées – Chimie, Bruxelles.

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Direction of Ph.D.

2024

Gosselin, B. (2024). *Development of a New Generation of Plasmonic Nanomaterials as Promising Colorimetric Reporters for Lateral Flow Assay* (Unpublished doctoral dissertation). Université libre de Bruxelles, Ecole polytechnique de Bruxelles – Chimie et Science des Matériaux, Bruxelles.

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2020

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2016

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Member of Ph.D. jury

2016

Brunetti, E. (2016). *Development and physicochemical characterization of calix[6]arene based chemical recognition systems* (Unpublished doctoral dissertation). Université libre de Bruxelles, Ecole polytechnique de Bruxelles – Chimie et Science des Matériaux, Bruxelles.

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Chair of Ph.D. jury

2023

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2020

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