

Dr. Simon PASCAL

Publications and Communications list

PUBLICATIONS	1
ORAL COMMUNICATIONS	9
POSTERS	12

- Co-author of **76 publications** (21 as corresponding author, 16 as first author) in international journals :
1 Chem. Soc. Rev. (39.0), 1 Coord. Chem. Rev. (23.5), 1 Adv. Funct. Mater. (19.0), 3 Angew. Chem. Int. Ed. (16.9), 1 ACS Nano (16.0), 1 J. Hazard. Mater. (11.3), 1 JACS Au (8.7), 2 ACS Appl. Mater. Interfaces (8.2), 1 Chem. Rec. (7.5), 7 Chem. Sci. (7.4), 1 Chem. Mater. (7.0), 2 Mater. Chem. Front. (6.4), 1 Electrochim. Acta (5.6), 2 Org. Lett. (5.0), 1 Polymers (4.9), 1 Org. Chem. Front (4.7), 2 RSC Adv. (4.6), 1 Nanoscale Adv. (4.6), 5 Chem. Commun. (4.2), 2 Dyes Pigm. (4.2), 1 Sci. Rep. (3.9), 1 Bioconjugate Chem. (3.9), 8 Chem. Eur. J. (3.7), 3 J. Org. Chem. (3.6), 1 ChemElectroChem (3.5), 2 Dalton Trans. (3.3), 2 J. Phys. Chem. C (3.2), 2 Phys. Chem. Chem. Phys. (2.9), 1 Organometallics (2.9), 1 J. Phys. Chem. A (2.8), 5 Org. Biomol. Chem. (2.7), 3 New J. Chem. (2.5), 1 ChemPhysChem (2.2), 1 Helv. Chim. Acta (1.8), 1 Tet. Lett. (1.5), J. Porphyrins Phthalocyanines (0.9), 1 RSC Appl. Polym. (n/a), 2 C. R. Chimie (n/a), 2 Proc. SPIE (n/a).
- 1600–1900 citations, H-index = 24–26 (June 2025)
- **26 oral communications** in congresses, **15 invited talks**, **17 posters** personally presented

PUBLICATIONS

[76] "Dye-Sensitized Solar Cells Based on Cu(I) Complexes Containing Catechol Anchor Groups that Operate with Aqueous Electrolytes"

L. Burmeister, F. Doettinger, K. Haseloff, C. Kleeberg, M. Boujtita, S. Pascal, F. Odobel, S. Tschierlei, Y. Pellegrin,* M. Karnahl*

JACS Au **2025**, 5, 23960–3973

DOI: 10.1021/jacsau.5c00601

HAL archive: hal-05192451

[75] "Metastable Macrocyclic Bis-Meisenheimer Adduct"

S. Pascal,* A. Torres Ruiz, A. E. Baker, D. A. Vander Griend, M. Giorgi, A. Planchat, D. Jacquemin,* O. Siri*

Angew. Chem. Int. Ed. **2025**, in press

DOI: 10.1002/anie.202511037

Angew. Chem. **2025**, in press

DOI: 10.1002/ange.202511037

HAL archive: hal-05151655

[74] "Synthesis and Properties of Quinoidal (Di-)Anionic Coupled Polymethine-Oxonol Dyes and Their Aromatic Counterparts"

B. Mourot, C. Naim, O. Siri, D. Jacquemin,* S. Pascal*

Org. Chem. Front. **2025**, in press

(Emerging Investigator Series)

DOI: 10.1039/D5Q000801H

HAL archive: hal-05143589

[73] "Small Far-Red Cationic Benzoquinone Diimine Dyes"

T. Munteanu, C. Naim, G. Canard, D. Jacquemin,* O. Siri,* S. Pascal*

Org. Biomol. Chem. **2025**, 23, 2836–2844

DOI: 10.1039/D5OB00082C

HAL archive: hal-04963470

[72] "On-surface Gold-catalyzed Hydroamination/Cyclization Reaction of Alkynes"

A. Jiménez-Martín, T. Munteanu, Q. Chen, S. Pascal, A. Tintaru, B. Mallada, P. Mutombo, O. Siri,* P. Jelinek,* B. de la Torre*

Mater. Chem. Front. **2025**, 9, 838–846

DOI: 10.1039/D4QM00866A

HAL archive: hal-04906550

[71] "Transamination of Zwitterionic Quinones with Polyamines: The Carbon Bridge Matters"

V. Tarpa, J.-F. Longevial, M. Giorgi, G. Canard, S. Pascal, D. Jacquemin,* O. Siri*

J. Org. Chem. **2025**, 90, 1001–1005

DOI: 10.1021/acs.joc.4c02100



HAL archive: hal-04867721

[70] "Terpenes, natural dyes and photochemistry: toward the synthesis of photoactive bio-based materials with biocide properties"

L. Beloy, C. Elian, V. Alphonse, S. Lajnef, F. Peyrot, D. Jacquemin, S. Pascal, E. Devernois, T. Coradin, S. Abbad Andaloussi, D.-L. Versace*

RSC Appl. Polym. **2025**, 3, 222–237

DOI: 10.1039/D4LP00271G

HAL archive: hal-04829892

[69] "Coupled Polymethine Dyes: Six Decades of Discoveries"

B. Mourrot, D. Jacquemin, O. Siri, S. Pascal*

Chem. Rec. **2024**, 24, e202400183

DOI: 10.1002/tcr.202400183

HAL archive: hal-04777010



[68] "1,2,4-triamino-5-nitrobenzene as air-stable aromatic polyamines for coordination chemistry"

S. Pascal* E. Zaborova, O. Siri*

C. R. Chimie **2024**, 27, 69–75

DOI: 10.5802/crchim.292

HAL archive: hal-04677386

[67] "Feasibility of Multiple Excited-State Proton Transfer Processes in Hydroxyquinoline-containing Benzobisimidazole Dyes"

T. Munteanu, D. Yordanov, G. Canard, O. Siri,* D. Jacquemin,* A. Georgiev,* S. Pascal*

New J. Chem. **2024**, 48, 13289–13295

DOI: 10.1039/D4NJ01787K

HAL archive: hal-04642128

[66] "Post-functionalization of triamino-phenazinium dyes to reach near-infrared emission"

T. Munteanu, J.-F. Longevial, G. Canard, D. Jacquemin, S. Pascal* O. Siri*

RSC Adv. **2024**, 14, 19257–19263

DOI: 10.1039/D4RA03245D

HAL archive: hal-04614356

[65] "High-Order Commensurate Zwitterionic Quinonoid Phase Induces a Nanoscale Dipole Lattice on Graphene"

G. Nassar, D. Cortés-Arriagada, L. Sanhueza-Vega, P. Landois, M. Paillet, H. Hrich, S. Contreras, O. Siri, S. Pascal, L. Masson, C. Becker, A. Ranguis, R. Parret, G. Canard, T. Leoni*

J. Phys. Chem. C **2024**, 128, 9712–9721

DOI: 10.1021/acs.jpcc.4c01695

HAL archive: hal-04609427

[64] "Two-step access to bis-meso-perfluoroalkyl-corroles towards meso-perfluoroacyl-ABC-corroles"

P.-G. Julliard, S. Pascal, O. Siri, M. Giorgi, D. Cortés-Arriagada, L. Sanhueza,* G. Canard*

Org. Biomol. Chem. **2024**, 22, 1993–1997

DOI: 10.1039/D4OB00191E

HAL archive: hal-04493017

[63] "Insights into Extended Coupled Polymethines through the Investigation of Dual UV-to-NIR Acidochromic Switches Based on Heptamethine-Oxonol Dyes"

B. Mourrot, V. Mazan, M. Elhabiri, R. Sarkar, D. Jacquemin,* O. Siri, S. Pascal*

Chem. Sci. **2024**, 15, 1248–1259 (HOT article)

DOI: 10.1039/D3SC06126D

HAL archive: hal-04345047



[62] "Controlled oligomeric guest stacking by cucurbiturils in water"

F. Liu, A. Kriat, R. Rosas, D. Berge-Lefranc, D. Gimes, S. Pascal, O. Siri, S. Liu,* A. Kermagoret,* D. Bardelang*

Org. Biomol. Chem. **2023**, 21, 9433–9442

DOI: 10.1039/D3OB01723K

HAL archive: hal-04294802

[61] "Enzyme-immobilized hierarchically porous covalent organic framework biocomposite for catalytic degradation of broad-range emerging pollutants in water"

N. Elmerhi, K. Al-Maqdi, K. Athamneh, A. K. Mohammed, T. Skorjanc, F. Gándara, J. Raya, S. Pascal, O. Siri, A. Trabolsi, I. Shah, D. Shetty,* S. S. Ashraf*

J. Hazard. Mater. **2023**, 459, 132261 (1–9)

DOI: 10.1016/j.jhazmat.2023.132261

HAL archive: hal-04183683

[60] "Tris-benzo[cd]indole Cyanine Enables the NIR-photosensitized Radical and Thiol-ene Polymerizations at 940 nm"

C. Elian, B. Mourrot, C. Benbouziyane, J.-P. Malval, S. Lajnef, F. Peyrot, F. Massuyeau, O. Siri, D. Jacquemin,* S. Pascal* D.-L. Versace*

Angew. Chem. Int. Ed. **2023**, 62, e2023059 (1–10)

DOI: 10.1002/anie.202305963

Angew. Chem. **2023**, 135, e202305 (1–10)

DOI: 10.1002/ange.202305963

HAL archive: hal-04183684

[59] "A Strategy to Design Substituted Tetraamino-Phenazine Dyes and Access to an NIR-Absorbing Benzoquinonediimine-Fused Quinoxaline"

T. Munteanu, V. Mazan, M. Elhabiri, C. Benbouziyane, G. Canard, D. Jacquemin,* O. Siri,* S. Pascal*
Org. Lett. **2023**, 25, 3886–3891
 DOI: 10.1021/acs.orglett.3c01251
 HAL archive: hal-04103261

[58] "A pH- and Metal-Actuated Molecular Shuttle in Water"
 A. Kriat, S. Pascal, B. Kauffmann, Y. Ferrand, D. B.-Lefranc, D. Gimes, O. Siri, A. Kermagoret,* D. Bardelang*
Chem. Eur. J. **2023**, 29, e2023006 (1–10)
 DOI: 10.1002/chem.202300633
 HAL archive: hal-04087079

[57] "Azacalixpyrin nanostructures"
 D. Ferry, S. Pricl, D. Marson, Z. Chen, G. Canard, S. Pascal, A. Tintaru, O. Siri*
J. Porphyrins Phthalocyanines **2023**, 27, 1231–1240
 DOI: 10.1142/S1088424623500785
 HAL archive: hal-04046963

[56] "Proton-Coupled Electron Transfer in a Pivaloyl-Substituted Dihydro-Tetraazapentacene"
 J.-F. Longevial,* I. Knysh, S. Al Shehimi, L. Khrouz, A. Pandurangan, S. Pascal, G. Canard, C. Bucher,* D. Jacquemin,* O. Siri*
Electrochim. Acta **2023**, 449, 142224
 DOI: 10.1016/j.electacta.2023.142224
 HAL archive: hal-04117793

[55] "Electrical monitoring of organic crystal phase transition using MoS₂ field effect transistor"
 I. Boulet, S. Pascal, F. Bedu, I. Ozerov, A. Ranguis, T. Leoni, C. Becker, L. Masson, A. Matkovic, C. Teichert, O. Siri, C. Attacalite, J.-R. Huntzinger, M. Paillet, A. Zahab, R. Parret*
Nanoscale Adv. **2023**, 5, 1681–1690
 DOI: 10.1039/D2NA00817C
 HAL archive: hal-04001075

[54] "Deciphering electronic and structural effects in Copper Corrole/Graphene Hybrids"
 K. Wrighton-Araneda, D. Cortés-Arriagada, P. Dreyse, S. Pascal, G. Canard,* Luis Sanhueza*
Chem. Eur. J. **2023**, 29, e202203175 (1–13)
 DOI: 10.1002/chem.202203175
 HAL archive: hal-03925693

[53] "Circularly Polarized Luminescences of Encaged Eu(III) and Tb(III) Complexes Controlled by an Inherently Chiral Remote Unit"
 E. Godart, O. Della-Negra, A. Long, A. Insuasty, L. Arrico, C. Benetti, E. Antonetti, P. Nava, Y. Cotelte,

N. Vanthuyne, M. Jean, S. Pascal, J.-P. Dutasta,* L. Di Bari,* A. Martinez*
New J. Chem. **2022**, 46, 20154–20159
 DOI: 10.1039/D2NJ02360A
 HAL archive: hal-03961762

[52] "Fully Zwitterionic Diaminobenzoquinonediimines Promoted by Cyanoaromatic N-substituents"
 T. Horáčková, M. H. E. Bousquet, A. Morice, U. Triballier, G. Canard, P. Lhoták, D. Jacquemin,* S. Pascal,* O. Siri*
Dyes Pigm. **2022**, 206, 110681 (1–8)
 DOI: 10.1016/j.dyepig.2022.110681
 HAL archive: hal-03758293

[51] "Covalent organic framework based on azacalix[4]arene for the efficient capture of dialysis waste products"
 T. Skorjanc, D. Shetty,* F. Gándara, S. Pascal, N. Naleem, S. Abubakar, L. Ali, A. K. Mohammed, J. Raya, S. Kirmizialtin, O. Siri,* A. Trabolssi*
ACS Appl. Mater. Interfaces **2022**, 14, 39293–39298
 DOI: 10.1021/acsami.2c06841
 HAL archive: hal-03758287

[50] "NIR-to-NIR Two-Photon Bio-Imaging Using Very Bright Tailored Amino-Heptamethines Dyes"
S. Pascal,* S.-H. Chi, A. Grichine, V. Martel-Frchet, J. W. Perry, O. Maury, C. Andraud*
Dyes Pigm. **2022**, 203, 110369 (1–8)
 DOI: 10.1016/j.dyepig.2022.110369
 HAL archive: hal-03656184

[49] "Reversible pH-Controlled Catenation of a Benzobisimidazole-based Tetranuclear Rectangle"
 M. Dekhtiarenko, S. Pascal,* M. Elhabiri, V. Mazan, D. Canevet, M. Allain, V. Carré, F. Aubriet, Z. Voitenko, M. Sallé,* O. Siri,* S. Goeb*
Chem. Eur. J. **2021**, 27, 15922–15927 (Hot paper)
 DOI: 10.1002/chem.202103039
 HAL archive: hal-03335302

[48] "Azacalixpyrins as an Innovative Alternative for the Free-Radical Photopolymerization under Visible and NIR Irradiation without the Need of Co-Initiators"
 L. Breloy, R. Mhanna, J.-P. Malval, V. Brezova, D. Jacquemin,* S. Pascal, O. Siri,* D.-L. Versace*
Chem. Commun. **2021**, 57, 8973–8976
 DOI: 10.1039/D1CC03607F
 HAL archive: hal-03318918

[47] "Functionalized Porphyrins from Meso-poly-halogeno-alkyl-dipyrromethanes: Synthesis and Characterizations"

P.-G. Julliard, S. Pascal, O. Siri, D. Cortés-Arriagada, L. Sanhueza,* G. Canard*
C. R. Chimie **2021**, 24, 27–45
DOI: 10.5802/crchim.97
HAL archive: hal-03315787

[46] "Modified Indulines: From Dyestuffs to *in vivo* Theranostic Agents"
Z. Chen, S. Pascal, M. Daurat, L. Lichon, C. Nguyen, A. Godefroy, D. Durand, L. M. A. Ali, N. Bettache, M. Gary-Bobo,* P. Arnoux, J.-F. Longevial, A. D'Aléo, G. Marchand, D. Jacquemin,* O. Siri*
ACS Appl. Mater. Interfaces **2021**, 13, 30337–30349
DOI: 10.1021/acsami.1c05933
HAL archive: hal-03269501

[45] "Significance Of Nuclear Quantum Effects In Hydrogen Bonded Molecular Chains"
A. Cahlik, J. Hellerstedt, J. I. Mendieta-Moreno, M. Švec, V. M. Santhini, S. Pascal, D. Soler-Polo, S. Erlingsson, K. Výborný, P. Mutombo, O. Marsalek, O. Siri,* P. Jelínek*
ACS Nano **2021**, 15, 10357–10365
DOI: 10.1021/acsnano.1c02572
HAL archive: hal-03236333

[44] "The Quinonoid Zwitterion Interlayer for the Improvement of Charge Carrier Mobility in Organic Field-Effect Transistors"
A. Luczak, A. Torres Ruiz, S. Pascal, A. Adamski, J. Jung, B. Luszczynska,* O. Siri*
Polymers **2021**, 13, 1567
DOI: 10.3390/polym13101567
HAL archive: hal-03226245

[43] "Near-Infrared Dyes for Two-Photon Absorption in the Short-Wavelength Infrared: Strategies Towards Optical Power Limiting"
S. Pascal,* S. David, C. Andraud, O. Maury*
Chem. Soc. Rev. **2021**, 50, 6613–6658
DOI: 10.1039/d0cs01221a
HAL archive: hal-03197147

[42] "Stabilization of a 12- π Electrons Diamino-Benzoquinonediimine Tautomer"
J. F. Longevial, Z. Chen, S. Pascal, G. Canard, D. Jacquemin,* O. Siri*
Chem. Commun. **2021**, 57, 549–551
DOI: 10.1039/D0CC06815B
HAL archive: hal-03082879

[41] "1D Coordination π -d Conjugated Polymers with Distinct Structures Defined by the Choice of the Transition Metal: Towards a New Class of Antiaromatic Macrocycles"

V. M. Santhini, C. Wäckerlin, A. Cahlik, M. Ondráček, S. Pascal, A. Matěj, O. Stetsovych, P. Mutombo, P. Lazar, O. Siri,* P. Jelinek*
Angew. Chem. Int. Ed. **2021**, 60, 439–445
DOI: 10.1002/anie.202011462
Angew. Chem. **2021**, 133, 443–449
DOI: 10.1002/ange.202011462
HAL archive: hal-02932130

[40] "Impacts of Ion-Pairing Effects on Linear and Nonlinear Photophysical Properties of Polymethines Dyes"
S. Pascal,* S.-H. Chi, J. W. Perry, C. Andraud,* O. Maury*
ChemPhysChem **2020**, 21, 2536–2542
DOI: 10.1002/cphc.202000731
HAL archive: hal-02999885

[39] "Mixed *N*-Aryl/Alkyl Substitution Favours an Unusual Tautomer of Near-Infrared Absorbing Azacalixpyrins"
L. Lavaud, C. Azarias, G. Canard, S. Pascal,* D. Jacquemin,* O. Siri*
New J. Chem. **2020**, 44, 18130–18137
DOI: 10.1039/D0NJ04587J
HAL archive: hal-02962328

[38] "Small Panchromatic and NIR Absorbers from Quinoid Zwitterions"
A. Torres Ruiz, M. H. E. Bousquet, S. Pascal,* G. Canard, V. Mazan, M. Elhabiri, D. Jacquemin,* O. Siri*
Org. Lett. **2020**, 22, 7997–8001
DOI: 10.1021/acs.orglett.0c02926
HAL archive: hal-02954443

[37] "Synthesis, Resolution, Configurational Stability and Properties of Cationic Functionalized [5]helicenes"
M. Marinova, S. Pascal, L. Guénée, C. Besnard, B. Shivachev, K. Kostova, C. Villani, R. Franzini, V. Dimitrov,* J. Lacour*
J. Org. Chem. **2020**, 85, 11908–11923
DOI: 10.1021/acs.joc.0c01716
(Highlighted in Synfacts)
HAL archive: hal-02935394

[36] "Near-Infrared Electrochemiluminescence in Water through Regioselective Sulfonation of Diaza [4] and [6]helicene Dyes"
H. Li, R. Duwald, S. Pascal, S. Voci, C. Besnard, J. Bosson, L. Bouffier, J. Lacour,* N. Sojic*



Chem. Commun. **2020**, 56, 9771–9774

DOI: 10.1039/D0CC04156D

HAL archive: hal-02907463

[35] "Fused Bis-Azacalixphyrin that reaches NIR-II absorptions"

L. Lavaud, C. Azarias, G. Canard,* S. Pascal, J. Galiana, M. Giorgi, Z. Chen, D. Jacquemin,* O. Siri*

Chem. Commun. **2020**, 56, 896–899

DOI: 10.1039/C9CC09021E

HAL archive: hal-02397648

[34] "Merging polyacenes and cationic helicenes: from weak to intense chiroptical properties in the far red region"

R. Duwald, J. Bosson, S. Pascal, S. Grass, F. Zinna, C. Besnard, L. Di Bari, D. Jacquemin,* J. Lacour*

Chem. Sci. **2020**, 11, 1165–1169

DOI: 10.1039/C9SC05407C

HAL archive: hal-02397237

[33] "First Principles Investigation of the Spectral Properties of Neutral, Zwitterionic, and bis-Cationic Azaacenes"

P. Guevara-Level, S. Pascal, O. Siri,* D. Jacquemin*

Phys. Chem. Chem. Phys. **2019**, 21, 22910–22918

DOI: 10.1039/C9CP04835A

HAL archive: hal-02304187

[32] "Unraveling the Two-Photon and Excited State Absorptions of Aza-BODIPY Dyes for Optical Power Limiting in the SWIR Band"

S. Pascal, Q. Bellier, S. David, P.-A. Bouit, S.-H. Chi, N. S. Makarov, B. Le Guennic, S. Chibani, G. Berginc, P. Feneyrou, D. Jacquemin,* J. W. Perry, O. Maury,* C. Andraud*

J. Phys. Chem. C **2019**, 123, 23661–23673

DOI: 10.1021/acs.jpcc.9b08376

HAL archive: hal-02281483

[31] "Versatile transamination in quinonediimine chemistry: Towards a novel class of water soluble UV/violet chromophores"

Z. Chen, M. Bert, S. Pascal, G. Canard, O. Siri*

Tet. Lett. **2019**, 60, 38, 151024

DOI: 10.1016/j.tetlet.2019.151024

HAL archive: hal-02270577

[30] "Synthesis of the New Cyanine-Labeled Bacterial Lipooligosaccharides for Intracellular Imaging and in Vitro Microscopy Studies"

T.-C. Wang, F. Cochet, F. A. Facchini, L. Zaffaroni, C. Serba, S. Pascal, C. Andraud, A. Sala, F. Di Lorenzo, O. Maury, T. Huser, F. Peri*

Bioconjugate Chem. **2019**, 30, 1649–1657

DOI: 10.1021/acs.bioconjchem.9b00044

HAL archive: hal-02147063

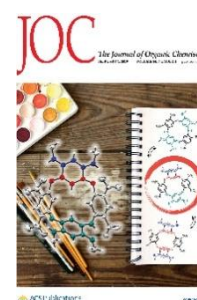
[29] "Azacalixquinarenes: from Canonical to (Poly-) Zwitterionic Macrocycles"

S. Pascal,* L. Lavaud, C. Azarias, A. Varlot, G. Canard, M. Giorgi, D. Jacquemin,* O. Siri*

J. Org. Chem. **2019**, 84, 1387–1397

DOI: 10.1021/acs.joc.8b02847

HAL archive: hal-02003222



[28] "Azacalixphyrins as NIR Photoacoustic Contrast Agents"

L. Lavaud, S. Pascal,* K. Metwally, D. Gasteau, A. Da Silva,* Z. Chen, M. Elhabiri, G. Canard, D. Jacquemin, O. Siri*

Chem. Commun. **2018**, 54, 12365–12368

DOI: 10.1039/C8CC05851B

HAL archive: hal-01957702

[27] "Combined reversible switching of ECD and quenching of CPL with chiral fluorescent macrocycles"

A. Homberg, E. Brun, F. Zinna, S. Pascal, M. Gorecki, L. Monnier, C. Besnard, G. Pescitelli, L. Di Bari, J. Lacour*

Chem. Sci. **2018**, 9, 7043–7052 (HOT article)

DOI: 10.1039/C8SC02935K

HAL archive: hal-01957759



[26] "Central substitution of azacalixphyrins: a strategy to acidochromic NIR dyes"

C. Azarias, S. Pascal, O. Siri, D. Jacquemin*

Phys. Chem. Chem. Phys. **2018**, 20, 20056–20069

DOI: 10.1039/C8CP03789B

HAL archive: hal-01958594

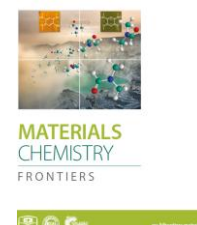
[25] "Controlling the Canonical/Zwitterionic Balance through Intramolecular Proton Transfer: a Strategy for Vapochromism"

S. Pascal,* L. Lavaud, C. Azarias, G. Canard, M. Giorgi, D. Jacquemin,* O. Siri*

Mater. Chem. Front. **2018**, 2, 1618–1625

DOI: 10.1039/C8QM00171E

HAL archive: hal-01957738



[24] "C-Functionalized Cationic Diazoaxa Triangulenes: Late-Stage Synthesis and Tuning of Physicochemical Properties"

I. Hernández Delgado, S. Pascal, C. Besnard, S. Voci, L. Bouffier, N. Sojic, J. Lacour*

Chem. Eur. J. **2018**, 24, 10186–10195

DOI: 10.1002/chem.201801486

HAL archive: hal-02999948

[23] "Design of Near-Infrared-Absorbing Unsymmetrical Polymethine Dyes with Large Quadratic Hyperpolarizabilities"

S. Pascal*, Y. A. Getmanenko, Y. Zhang, I. Davydenko, M. H. Ngo, G. Pilet, S. Redon, Y. Bretonnière, O. Maury, I. Ledoux-Rak, S. Barlow, S. R. Marder,* C. Andraud*

Chem. Mater. **2018**, 30, 3410–3418

DOI: 10.1021/acs.chemmater.8b00960

HAL archive: hal-01957768

[22] "Specific labeling of mitochondria of Chlamydomonas with cationic helicene fluorophores"

C. Bauer, R. Duwald, G. M. Labrador, S. Pascal, P. Moneva Lorente, J. Bosson, J. Lacour,* J.-D. Rochaix*

Org. Biomol. Chem. **2018**, 16, 919–923

DOI: 10.1039/C7OB02906C

HAL archive: hal-01957770

[21] "Excimer-Based On-Off Bis(pyreneamide) Macrocylic Chemosensors"

M. Vishe, T. Lathion, S. Pascal, O. Yushchenko, A. Homberg, E. Brun, E. Vauthey,* C. Piguet,* J. Lacour*

Helv. Chim. Acta **2018**, 101, e1700265

DOI: 10.1002/hlca.201700265

HAL archive: hal-01957772

[20] "Benzoquinonediimine ligands: Synthesis, coordination chemistry and properties"

S. Pascal, O. Siri*

Coord. Chem. Rev. **2017**, 350, 178–195

DOI: 10.1016/j.ccr.2017.06.015

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[19] "Enantiospecific Elongation of Cationic Helicenes by Electrophilic Functionalization at Terminal Ends"

R. Duwald, S. Pascal, J. Bosson, S. Grass, C. Besnard, T. Bürgi, J. Lacour*

Chem. Eur. J. **2017**, 23, 13596–13601

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[18] "[4]Helicene-squalene fluorescent nanoassemblies for specific targeting of mitochondria in live-cell imaging"

A. Babic,* S. Pascal, R. Duwald, D. Moreau, J. Lacour,* E. Alléman*

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DOI: 10.1002/adfm.201701839

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[17] "Efficient Annihilation Electrochemiluminescence of Cationic Helicene Luminophores"

H. Li, S. Voci, A. Wallabregue, C. Adam, G. M. Labrador, R. Duwald, I. Hernández Delgado, S. Pascal, J. Bosson, J. Lacour, L. Bouffier,* N. Sojic*

ChemElectroChem **2017**, 4 (7), 1750–1756

DOI: 10.1002/celec.201600906

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[16] "Keto-polymethines: a versatile class of dyes with outstanding spectroscopic properties for in cellulose and in vivo two-photon microscopy imaging"

S. Pascal, S. Denis-Quanquin, F. Appaix, A. Duperray, A. Grichine, B. Le Guennic, D. Jacquemin, J. Cuny, S.-H. Chi, J. W. Perry, B. van der Sanden, C. Monnereau, C. Andraud,* O. Maury*

Chem. Sci. **2017**, 8, 381–394

DOI: 10.1039/C6SC02488B

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[15] "Physicochemical and electronic properties of cationic [6]helicenes, from chemical and electrochemical stabilities to far-red (polarized) luminescence"

J. Bosson, G. M. Labrador, S. Pascal, F.-A. Miannay, O. Yushchenko, H. Li, L. Bouffier,

N. Sojic, R. C. Tovar, G. Muller, D. Jacquemin, A. D. Laurent, B. Le Guennic, E. Vauthey,* J. Lacour*

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DOI: 10.1002/chem.201603591

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[14] "Zwitterionic [4]helicene: a water-soluble and reversible pH triggered ECD/CPL chiroptical switch in the UV and red spectral regions"

S. Pascal, C. Besnard, F. Zinna, L. Di Bari, B. Le Guennic, D. Jacquemin, J. Lacour*

Org. Biomol. Chem. **2016**, 14, 4590–4594

DOI: 10.1039/C6OB00752J

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[13] "Functionalized cationic [4]helicenes with unique tuning of absorption, fluorescence and chiroptical properties up to the far-red range"
I. Hernández Delgado, S. Pascal, A. Wallabregue, R. Duwald, C. Besnard, L. Guénée, C. Nançoz, E. Vauthey, R. C. Tovar, J. L. Lunkley, G. Muller, J. Lacour*

Chem. Sci. **2016**, 7, 4685–4693

DOI: 10.1039/C6SC00614K

HAL archive: hal-02999921

[12] "Synthesis, electrochemistry and photophysics of aza-BODIPY porphyrin dyes"
S. Pascal, L. Bucher, N. Desbois, C. Bucher, C. Andraud,* C. P. Gros*

Chem. Eur. J. **2016**, 22, 4971–4979

DOI: 10.1002/chem.201503522

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[11] "NIR electrofluorochromic properties of aza-boron-dipyrromethene dyes"

H. Lim, S. Seo, S. Pascal, Q. Bellier, S. Rigaut, C. Park, H. Shin, O. Maury, C. Andraud,* E. Kim*

Sci. Rep. **2016**, 6, 18867 (1–8)

DOI: 10.1038/srep18867

HAL archive: hal-01256841

[10] "Synthesis and electronic properties of polycyclic aromatic hydrocarbons doped with phosphorus and sulfur"

W. Delauney, R. Szűcs, S. Pascal, A. Mocanu, P.-A. Bouit, L. Nyulaszi,* M. Hissler*

Dalton Trans. **2016**, 1896–1903

DOI: 10.1039/C5DT04154F

HAL archive: hal-01232064

[9] "Bis-triazolyl BODIPYs: a simple dye with strong red-light emission"

C. Guérin, L. Jean-Gérard, G. Octobre, S. Pascal, O. Maury, G. Pilet, A. Ledoux, B. Andrioletti*

RSC Adv. **2015**, 5, 76342–76345

DOI: 10.1039/C5RA14309H

HAL archive: hal-01957818

[8] "On the versatility of electronic structures in polymethine dyes"

S. Pascal, A. Haefele, C. Monnereau, A. Charaf-Eddin, D. Jacquemin, B. Le Guennic, O. Maury,* C. Andraud*

Proc. SPIE **2014**, 9253 (92531A), 1–11

DOI: 10.1117/12.2072624

HAL archive: hal-01896789

[7] "Expanding the polymethine paradigm: evidence for the contribution of a bis-dipolar electronic structure"

S. Pascal, A. Haefele, C. Monnereau, A. Charaf-Eddin, D. Jacquemin, B. Le Guennic,* C. Andraud,* O. Maury*

J. Phys. Chem. A **2014**, 118 (23), 4038–4047

DOI: 10.1021/jp501358q

HAL archive: hal-01088535

[6] "1,2-dihydrophosphete: a platform for the molecular engineering of electroluminescent phosphorus materials for light-emitting devices"
H. Chen, S. Pascal, Z. Wang, P.-A. Bouit, Z. Wang, Y. Zhang, D. Tondelier, B. Geffroy, R. Réau,* F. Mathey,* Z. Duan,* M. Hissler*

Chem. Eur. J. **2014**, 20, 9784–9793

DOI: 10.1002/chem.201400050

HAL archive: hal-01089789

[5] "Millisecond lifetime imaging with europium complex using a commercial confocal microscope under one or two-photon excitations"

A. Grichine,* A. Haefele, S. Pascal, A. Duperray, R. Michel, C. Andraud, O. Maury*

Chem. Sci. **2014**, 5, 3475–3485

DOI: 10.1039/C4SC00473F

HAL archive: hal-01957831

[4] "NIR electrochemical fluorescence switching from polymethine dyes"

S. Seo, S. Pascal, C. Park, K. Shin, X. Yang, O. Maury, B. Sarwade, C. Andraud,* E. Kim*

Chem. Sci. **2014**, 5, 1538–1544

DOI: 10.1039/c3sc53161a

HAL archive: hal-01288845



[3] "Symmetry loss of heptamethine cyanines: an example of dipole generation by ion-pairing effect"

S. Pascal, P.-A. Bouit, B. Le Guennic, S. Parola, O. Maury,* C. Andraud*

Proc. SPIE **2013**, 8622 (86220F), 1–7

DOI: 10.1117/12.2008220

HAL archive: hal-01245529

[2] "Synthesis of a square-planar rhodium alkylidene *N*-heterocyclic carbene complex and its reactivity toward alkenes"

L. Palacios, X. Miao, A. Di Giuseppe, S. Pascal, C. Cunchillos, R. Castarlenas,* J. J. Pérez-Torrente, F. J. Lahoz, P. H. Dixneuf, L. A. Oro

Organometallics **2011**, 30 (19), 5208–5213

DOI: 10.1021/om2005782

HAL archive: hal-00652038

[1] "Preparation of chiral ruthenium(IV) complexes and applications in regio- and enantioselective allylation of phenols"

DOI: 10.1039/c0dt01812k

HAL archive: hal-00615277

Z. Sahli, N. Derrien, S. Pascal, B. Demerseman, T. Roisnel, F. Barriere, M. Achard, C. Bruneau*
Dalton Trans. **2011**, 40 (20), 5625–5630

ORAL COMMUNICATIONS

[41] "Coupled Polymethine Dyes:

Always Room for a Second Slice of π "

Invited Lecture (45 min) – Moltech-Anjou – Angers, France – 13 June 2025

[40] "Coupled Polymethines: Let's Have a Second Slice of π "

Communication (15 min) – Science et Technologie des Systèmes π -Conjugués (SPIC 2025) – Paris, France – 20-23 Janvier 2025

[39] "From Notes to Chords: What is the Impact of Coupling Polymethine Dyes?"

Invited talk (30 min) – Journée d'Automne 2024 de la DCO SCF – Paris, France – 11 Décembre 2024

[38] "Design of Quinoid and Coupled Polymethine Dyes"

Oral communication (15 min) – Journée des Chargés de Recherche de l'Institut de Chimie – FIAP, Paris – 4-5 Novembre 2024

[37] "Spotlights on Near-Infrared Dyes"

Invited Lecture (45 min) – WeDoc Webinars – Normandy Doctoral School – 11 Septembre 2024

[36] "Extended Coupled Polymethines: A New Class of Cyanine Dyes"

Communication (15 min) – CEISAM Day – Nantes, France – 4 Juillet 2024

[35] "A Coupling Strategy to Access Compact Near-IR Organic Dyes"

Communication (15 min) – Journée d'Automne 2023 de la DCO SCF – Paris, France – 5 Décembre 2023

[34] "Colorful Zwitterions Built Around Quinoidal Rings"

Communication (15 min) – SCF 2023 Congress – Nantes, France – 26 Juin 2023

[33] "Quinoid Dyes Derived From Coupled Polymethines: a Colorful Exploration"

Invited Lecture (40 min) – Institut des Sciences Chimiques de Rennes – France – 21 Juin 2023

[32] "Quinonediimine-Based Oligomers and Wires"

Communication (20 min) – 6th International Workshop on Nano- and Bio-Photonics (IWNBP) – Evian-Les-Bains, France – 26 Septembre 2022

[31] "Coupled Polymethines and Quinones: a colorful journey towards the Near-Infrared"

Invited Lecture (60 min) – Laboratoire CEISAM – Nantes – 21 Septembre 2022

[30] "Benzobisimidazole-based Supramolecular Architectures"

Oral communication (25 min) – Journées de Chimie Supramoléculaire SCF – Lyon – May 19-20, 2022

[29] "Quinonediimine ligands: from oligomeric coordination complexes in solution to molecular wires on surfaces"

Oral communication (20 min) – 10th International Conference on Molecular Electronics (ELECTMOL) – Lyon – December 1st, 2021

[28] "Stable (Poly-)Zwitterionic Quinoidal and Macrocyclic Dyes"

Oral communication (15 min) – Journée des Chargés de Recherche de l'Institut de Chimie – CNRS, Meudon – October 25-26, 2021

[27] "Benzobisimidazole-based Tetranuclear Rectangles"

Oral communication (20 min) – Supra-Mars seminar – ICR, Marseille – October 15, 2021

[26] "Small & Macrocyclic Zwitterionic Quinones"

Oral communication (25 min) – Supra-Mars seminar – CINaM, Marseille – July 2, 2021

[25] "Azacalixphyrins: from NIR-I to NIR-II Macrocycles and Photoacoustic Contrast Agents"

Oral communication (15 min) – SP2P PhotOnline (webinar) – October 15, 2020

[24] "Remarkable Dyes in Quinoid Chemistry: From Small to Macrocyclic Zwitterions"

Invited Lecture (50 min) – Laboratoire de Chimie, ENS Lyon – February 12, 2020

[23] "An Overview of Visible to Near-Infrared Organic Dyes: From Molecular Design to Modern Applications"

Invited Lecture (45 min) – Vulgarisation Lecture for 1st year students – IUT Chimie Marseille – January 29, 2020

[22] "Unconventional and Colorful Zwitterions: From Principles to Applications"

Invited Lecture (45 min) – Łódź University of Technology – Łódź, Poland – November 22, 2019

[21] "What's New In Benzoquinone Imine Chemistry?"

Oral communication (10 min) – CINaM laboratory day – Marseille, France – October 10, 2019

[20] "Unconventional and Colorful Zwitterions illustrating the Coupling Principle in Polymethine dyes"

Oral communication (20 min) – 5th International Workshop on nano- and bio-photonics (IWNBP) – St Nectaire, France – Sept. 22, 2019

[19] "Zwitterionic Quinone-based Chromophores and Macrocycles"

Oral communication (25 min) – Sixth International Workshop on Advanced, Nano- and Biomaterials and Their Applications (NABM 2019) – Cluj Napoca, Romania – May 14, 2019

[18] "Porphyrin Analogues at the CINaM: Corroles and Azacalixpyrins"

Oral communication (20 min) – GDR Macrocycles Pyrroliques (MAPYRO) – Rennes, France – May 4, 2019

[17] "Zwitterionic Quinones: an Unprecedented Class of Coupled Polymethines"

Seminar (60 min) – TSN laboratory – Marseille, France – February 26, 2019

[16] "Controlling the Canonical/Zwitterionic Balance: a New Strategy for Vapochromism"

Oral communication (15 min) – RCOM10 – Marseille, France – May 24, 2018

[15] "New Cases of Zwitterions in Quinoid Chemistry"

Oral communication (15 min) – 4th International Workshop on nano- and bio-photonics (IWNBP) and French-Korean meeting on functional materials (FUNMOOD) – Vogüe, France – September 28, 2017

[14] "Late-stage functionalization of cationic [4]helicenes: from (chir)optical tuning to enantiospecific syntheses of higher order helicenes"

Oral communication (25 min) – Symposium on Macrocycles – CEISAM, University of Nantes, France – February 9, 2017

[13] "Red-to-NIR polymethine dyes: new concepts toward optical applications and extension to helical architectures"

Invited Lecture (45 min) – P2DA laboratory – University of Dijon, France – November, 2015

[12] "Red-to-NIR polymethine dyes: new concepts toward optical applications and extension to helical architectures"

Invited Lecture (45 min) – CINaM laboratory – Aix-Marseille Univ., France – September 11, 2015

[11] "Polymethine dyes: structure-properties relationships for applications in nonlinear optics"

Invited Lecture (40 min) – OMC laboratory – University of Rennes 1, France – February, 2015

[10] "Near-infrared polymethine dyes for nonlinear optics"

Seminar (60 min) – Lacour group – University of Geneva, Switzerland – November, 2014

[9] "On the versatility of electronic structures in polymethine dyes"

Oral communication (15 min) – SPIE Security+Defense and Remote Sensing – Amsterdam, Nederland – September, 2014

[8] "Rationalize and predict the optical behavior of polymethine dyes"

Oral communication (20 min) – Chemistry Summer School: Goethe Universitat Frankfurt / ENS Lyon – Lyon, France – June, 2014

[7] "Round trip beyond the cyanine limit"

Oral communication (15 min) – Autumn days of the French Photochemistry, Photophysics and Photosciences Group (GFP2P) – Orsay, France – November, 2013

[6] "Round trip beyond the cyanine limit"

Oral communication (15 min) – 2nd International Workshop on nano- and bio-photonics (IWNBP) and French-Korean meeting on functional materials (FUNMOOD) – Biarritz, France – November, 2013

[5] "Heptamethine dyes for bio-imaging in the near-infrared by two-photon excited fluorescence"

Oral communication (15 min) – Microscopy and life imaging symposium (GDR 2588) – Lyon, France – July, 2013

[4] "Tuning of heptamethines optical properties: a new cyanine paradigm"

Oral communication (20 min) – ENS Lyon PhD day – Lyon, France – May, 2013

[3] "Two-photon absorption in the near-infrared spectral range: towards optical limiting applications"

Oral communication (20 min) – Coordination chemistry days of the French Chemical Society (SCF) – Lyon, France – February, 2013

[2] "Two-photon absorption in the near-infrared spectral range: towards bio-imaging and optical limiting applications"

Seminar (40 min) – ENS Chemistry laboratory – Lyon, France – January, 2013

[1] "Cyanines and aza-BODIPY for two-photon absorption at telecommunication wavelengths"

Seminar (60 min) – Marder group – GeorgiaTech, Atlanta, USA – October, 2012

POSTERS (personnaly presented)

[17] "Low Molecular Weight Red-NIR Chromophores Based on Coupled Polymethine"
CEISAM congress – Nantes, France – 12-13 Mars 2025

[16] "Design of Coupled Heptamethine-Oxonol Dyes Coupled Polymethines: A New Class of Cyanine Dyes"
Journées communes des GDR Solar Fuels et Photo Electro Stimulation – Grenoble, France – 24-26 Juin 2024

[15] "Extended Coupled Polymethines: A New Class of Cyanine Dyes"
Journées scientifiques de la division SCF Bretagne Pays de la Loire (SCF-BPL) – Logonna-Daoulas, France – 10-12 Juin 2024

[14] "Design of Macrocyclic Zwitterionic Chromophores Inspired by the Coupled Polymethines"
Science et Technologie des Systèmes π -Conjugués (SPIC 2023) – Saint Malo, France – 5-8 Décembre 2023

[13] "Quinonediimine ligands for the design of oligomeric coordination complexes and molecular wires"
10^{èmes} Journées Franco-Italiennes de Chimie – Toulon, France – 26-27 Avril 2022

[12] "Quinonediimine Ligands to Access Multinuclear Complexes that Reach Far-Red and Near-Infrared Absorptions"
Journées de Chimie de Coordination SCF (JCC 2020) – Marseille, France – January 23-24, 2020

[11] "Remarkable Zwitterions in Quinoid Chemistry: Fundamental Principles, Synthesis and Applications"
Journées de Chimie Organique SCF (JCO 2019) – Palaiseau, France – October 29-31, 2019

[10] "Azacalixquinarenes: (Poly-)Zwitterionic Macrocycles Inspired from Vapochromic Quinones"
"Emerging Azacalixphyrins: from Chemical Engineering Towards Near-Infrared Photoacoustic Contrast Agents"
15th International Conference on Calixarenes (CALIX-2019) – Cassis, France – June 10-14, 2019

[9] "Quinoids for emerging applications: gas sensing and photoacoustic imaging"

GDR « organic electronics for the new era » (OERA) – Aix-en-Provence, France – October, 2018

[8] "Polymethines: old dyes for modern applications in the near infra-red"
4th International Workshop on nano- and biophotonics (IWNBP) and French-Korean meeting on functional materials (FUNMOOD) – Vogüe, France – September, 2017

[7] "North functionalization of cationic [4]helicenes: unique tuning of properties for (chir)optical applications up to the far-red range"
"South functionalization of cationic [4]helicenes: straightforward access to extended [5] and [6] helicenes"
28th ISCD (Chirality 2016) – Heidelberg, Germany – July, 2016

[6] "Keto-heptamethines for NIR-to-NIR bio-imaging using two-photon excitation"
French Chemical Society Days (SCF), Rhône-Alpes section – Chambéry, France – June, 2014

[5] "NMR study of heptamethine dyes: evidences for charge localization and ion pairing"
XIVth Rhône-Alpes NMR Day – Lyon, France – May, 2013

[4] "Two-photon absorption in the near-infrared spectral range: towards bio-imaging applications"
Chemistry Doctoral School Day – Lyon, France – April, 2013

[3] "Two-photon absorption in the near-infrared spectral range: towards bio-imaging and optical limiting applications"
Symposium "Tomorrow, towards a selected chemistry" – Lyon, France – December, 2012

[2] "Symmetry breaking in heptamethine cyanine dyes: toward bio-imaging applications"
French Chemical Society Days (SCF), Rhône-Alpes section – Lyon, France – June, 2012

[1] "Design and synthesis of near infrared dyes for bio-imaging and optical limiting applications"
ENS PhD day – Lyon, France – March, 2012