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Chimie

Pierre Braunstein

Editorial January 2025 for *Comptes Rendus Chimie*

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Editorial

Editorial January 2025 for *Comptes Rendus Chimie*

Pierre Braunstein

It is not only the usual time for wishing the best to our families, friends and colleagues, and in particular to all those who keep *Comptes Rendus Chimie* running smoothly and developing, but also for reflecting on the past year. Ever since 1835, when the physicist and then Permanent Secretary of the *Academie des sciences* François Arago created the *Comptes rendus de l'Académie des sciences*, this journal has attempted and largely succeeded in being a stable and reputed medium at the service of the scientific community. By becoming since January 1, 2020 a fully Open Access journal, free of charge for authors and readers worldwide (no access fees, no downloading charges, no page charges), *Comptes rendus Chimie* have increased their attractivity and the positive feed-back received from our authors, referees and readership constitute a most pleasing encouragement. We are doing our best to meet the demands of the international scientific community, but we always welcome suggestions to improve.

We all know that Chemistry is a very rich and diverse science, with increasingly important and fruitful interactions with life sciences, physics and material sciences. This journal aims at covering all these aspects, whether of fundamental or applied nature. We publish original research articles and accounts (short reviews focused on the authors' recent scientific contributions), preliminary communications that typically describe novel and important results, as well as historic chronicles. Quality remains the only criteria on which the referees and the editors base their recommendations and decisions, respectively. More details are provided in the Instructions to authors. In addition to spontaneous submissions, thematic issues coordinated by one or many guest editor(s) (upon invitation or spontaneous suggestions) are particularly welcome as they meet increasing needs from our community. They provide a concise and efficient assessment of the state-of-the-art in rapidly expanding fields of research, bring together in one place contributions on related themes and often include results obtained through international collaborations.

The thematic issues published in 2024 covered very different topics, as illustrated below:

- French/Nordic Special Issue on *Materials and Coordination Chemistry*, with Professors Claude P. Gros (Université de Bourgogne) and Abhik Ghosh (The Arctic University of Norway) serving as Guest Editors.
- *Women Chemists in France*, coupled with a breakfast organised in the *Académie des sciences* to honour distinguished colleagues and encourage more women to take a scientific career. Inspired by the annual « Women Breakfast » organised every year by IUPAC, this event was a « first » for the *Académie des sciences* and its success, thanks to the support of the *Académie des sciences*, will result in a follow-up in 2025. This informal and most enjoyable meeting and associated special issue of the *Comptes rendus Chimie* were beautifully coordinated by Professor Janine Cossy (ESPCI Paris, PSL University), one of our Associate Editors.
- *Materials and Energy Valorization of Biomass and Waste: The Path for Sustainability and Circular Economy Promotion*, with Professors Mejdi Jeguirim (University of Haute Alsace, University of Strasbourg) and Salah Jellali (Sultan Qaboos University, Muscat, Oman) serving as guest editors;

Table 1. Our 10 most active referees in 2024

Janine Cossy (ESPCI, Paris, France)
Juliette Martin (SEQENS, Nîmes, France)
Salah Jellali (Sultan Qaboos University, Muscat, Oman)
Monica Jain (Banda University of Agriculture & Technology, Banda, India)
Mejdi Jeguirim (Université de Haute-Alsace, Mulhouse, France)
Anh Quoc Khuong Nguyen (Nguyen Tat Thanh University, Ho Chi Minh City, Vietnam)
Meriem Belhachemi (Bechar University, Bechar, Algeria)
Besma Khiari (National School of Engineers of Carthage, Tunis, Tunisia)
Adrian Bonilla-Petriciolet (Instituto Tecnológico de Aguascalientes, Mexico, Mexico)
Thierry Billard (CNRS – Université Claude-Bernard Lyon 1, Lyon, France)

Table 2. The 15 articles (published since 1 January 2021) most viewed in 2024 (data supplied by Centre Mersenne—source: Google Analytics via Elastic statistics module—Kibana, consulted on 20/01/2025)

Title	Authors
Huiles essentielles et chiralité moléculaire	L. Aribi-Zouioueche; F. Couic-Marinier
Louis Pasteur face à la maladie du ver à soie (1865–1870) : du chimiste au biologiste	Y. Carton
Jean-Antoine Chaptal (1756–1832), agronome et chimiste	J. Fournier
Chimie des substances naturelles et pharmacie : à la croisée des chemins	M. A. Beniddir; E. Poupon
The influence of particle(s) size, shape and distribution on cake filtration mechanics—a short review	S. S. Haramkar; G. N. Thombre; S. V. Jadhav; B. N. Thorat
Le foisonnement éolien : les limites d'un mix électrique à forte proportion d'énergies renouvelables intermittentes	D. Grand; M. Fontecave
Randall's plaque as the origin of idiopathic calcium oxalate stone formation: an update	E. Van de Perre; D. Bazin; V. Estrade; E. Bouderlique; K. M. Wissing; M. Daudon; E. Letavernier
Solvent extraction of uranium from an acidic medium for the front-end of nuclear fuel cycle: from mechanisms understanding to innovative process design	F. Giusti; E. Guerinoni; D. Lemire; M. Thimotée; G. Arrachart; S. Dourdain; S. Pellet-Rostaing
Les scénarios énergétiques à l'épreuve du stockage des énergies intermittentes	M. Fontecave; D. Grand
Louis Pasteur : de la physico-chimie à la biologie	H. This
Louis Pasteur bactériologiste : de l'atténuation de la virulence à la vaccination	H. Monteil

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Table 2. (continued)

Title	Authors
Étude expérimentale et théorique d'un nouveau composé halogène pnicture $Hg_{12}Sb_6(Br_{5,186}I_{6,814})$	M. Kheit; S. Merazka; M. Kars; A. Gómez-Herrero; T. Roisnel; M. Sidoumou
Urinary tract infection inducing stones: some clinical and chemical data	M. Daudon; M. Petay; S. Vimont; A. Deniset; F. Tielens; J.-P. Haymann; E. Letavernier; V. Frochot; D. Bazin
Bioethanol production from coconut husk using DES-NADES pretreatment and enzymatic hydrolysis method	M. Yerizam; A. Miftahul Jannah; N. Aprianti; Y. Yandriani; M. Rendana; A. Qonita Ernas; J. Lowise Tamba
Pathologies related to abnormal deposits in dermatology: a physico-chemical approach	H. Colboc; P. Moguelet; E. Letavernier; V. Frochot; J.-F. Bernaudin; R. Weil; S. Rouzière; P. Senet; C. Bachmeyer; N. Laporte; I. Lucas; V. Descamps; R. Amode; F. Brunet-Possenti; N. Kluger; L. Deschamps; A. Dubois; S. Reguer; A. Somogyi; K. Medjoubi; M. Refregiers; M. Daudon; D. Bazin

Table 3. The 15 articles (published since 1 January 2021) most downloaded in 2024 (source: Centre Mersenne)

Title	Authors
Chimie des substances naturelles et pharmacie : à la croisée des chemins	M. A. Beniddir; E. Poupon
Le limonène dans les huiles essentielles : énantiomères et activités biologiques	L. Aribi-Zouioueche
Huiles essentielles et chiralité moléculaire	L. Aribi-Zouioueche; F. Couic-Marinier
Non-covalent interactions in supported asymmetric catalysis: a brief account	L. Ibos; E. Schulz
Le foisonnement éolien : les limites d'un mix électrique à forte proportion d'énergies renouvelables intermittentes	D. Grand; M. Fontecave
TiO_2, ZnO and SnO_2-based metal oxides for photocatalytic applications: principles and development	O. Ishchenko; V. Rogé; G. Lamblin; D. Lenoble; I. Fechete
Editorial January 2024 for *Comptes Rendus Chimie*	P. Braunstein
Electrogeneration of non-electroactive and non-conducting materials: a counterintuitive concept for the functionalization and nanostructuration of electrode surfaces	A. Walcarius
Development of antibacterial magnetic clay-based nanocomposites for water treatment	M. Horue; F. Barraqué; M. L. Montes; M. Emilia Zelaya-Soulé; C. Fernández Morantes; F. Camila Urruchua; H. E. Correa; G. R. Castro; M. A. Fernandez

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Table 3. (continued)

Title	Authors
Experimental evidences of radicals production by hydrodynamic cavitation: a short review	J.-A. Nöpel; F. Ayela
Jean-Antoine Chaptal (1756–1832), agronome et chimiste	J. Fournier
Editorial January 2023 for *Comptes Rendus Chimie*	P. Braunstein
Zeolite-based catalysis for isobutene conversion into chemicals and fuel additives. A review	V. Hulea
About polyhedrane "cages" and their doubtful supramolecular lodging capacity: a demonstration by the absurd and a plea for free expression in scientific journals	J. G. Riess
Preparation of hyperbranched 4-dimethylaminopyridine catalyst for the efficient synthesis of vitamin E succinate	H. Li; T. Zhang; K. Tang; B. Li; X. Zhang; B. Zhao; J. Wang

Table 4. The 15 most cited articles (all years) in 2024 (source: Web of Science as consulted on 20 January 2025)

Title	Authors
Titanium dioxide photocatalysis: present situation and future approaches	A. Fujishima; X. T. Zhang
Chemical solution deposition of electronic oxide films	R. W. Schwartz; T. Schneller; R. Waser
Sacrificial electron donor reagents for solar fuel production	Y. Pellegrin; F. Odobel
Carbohydrates as green raw materials for the chemical industry	F. W. Lichtenthaler; S. Peters
Magnetic nano- and microparticles for metal removal and environmental applications: a review	A. F. Ngomsik; A. Bee; M. Draye; G. Cote; V. Cabuil
Green solvents from ionic liquids and deep eutectic solvents to natural deep eutectic solvents	H. Vanda; Y. Dai; E. G. Wilson; R. Verpoorte; Y. H. Choi
Chimie douce: A land of opportunities for the designed construction of functional inorganic and hybrid organic-inorganic nanomaterials	C. Sanchez; L. Rozes; F. Ribot; C. Laberty-Robert; D. Grosso; C. Sassoye; C. Boissiere; L. Nicole
Dendrimer-encapsulated metal nanoparticles and their applications to catalysis	Y. H. Niu; R. M. Crooks
Contributions of organic electrosynthesis to green chemistry	H. J. Schaefer
A brief history of the contribution of metalloporphyrin models to cytochrome P450 chemistry and oxidation catalysis	D. Mansuy

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Table 4. (continued)

Title	Authors
Metal-catalysed hydrocarbon oxidations	G. B. Shul'pin
Rare-earth-doped glasses for fiber amplifiers in broadband telecommunication	S. Tanabe
Design of functional nano-structured materials through the use of controlled hybrid organic-inorganic interfaces	C. Sanchez; G. J. D. A. Soler-Illia; F. Ribot; D. Grosso
Modeling of an equivalent circuit for dye-sensitized solar cells: improvement of efficiency of dye-sensitized solar cells by reducing internal resistance	L. Y. Han; N. Koide; Y. Chiba; A. Islam; T. Mitate
Use of ionic liquids in sol-gel; ionogels and applications	A. Vioux; L. Viau; S. Volland; J. Le Bideau

- The special issue "*French Research Network on Hydrometallurgical Processes for Primary and Secondary Resources*", coordinated by Drs. Laurent Cassayre (CNRS, Université de Toulouse, France) and Hervé Muhr (Université de Lorraine, France) is in progress, with 9 articles published in 2024, and will expand into 2025 with 4 more articles.
- Likewise for the Special Issue *French Network on Solvation*, with Dr. Francesca Ingrosso (Université de Lorraine, France) as Guest Editor, for which 7 articles have been published in 2024, and a further 2 will be published in 2025.

We are most grateful to our guest editors for their dedication and most valuable contributions and to our authors for meeting the deadlines. They are responsible for the success of this journal and its increasing visibility.

We rely on high-level scientific referees and knowing that they are increasingly solicited, we are particularly grateful to them for their efforts and contributions to the success of *Comptes Rendus Chimie.* A special thank you goes to our 15 most active referees listed in Table 1.

I am pleased to report that the international visibility of the publications in *Comptes Rendus Chimie* is particularly significant in the USA, China, France, Germany and Japan (data supplied by Centre Mersenne—source: Google Analytics via Elastic statistics module—Kibana, consulted on 20/01/2025). The 15 most viewed and downloaded articles in 2024 are listed in Tables 2 and 3, respectively.

The most cited articles (all years) in 2024 are listed in Table 4.

We wish to congratulate our authors for their scientific achievements and are proud to contribute enhancing the visibility of their work through a fully Open Access worldwide journal!

Comptes Rendus Chimie were highlighted during the excellent Annual Symposium and Awards Ceremony of the European Academy of Sciences, organised on 29 and 30 October 2024 in the wonderful premises of the Lisbon Academy of Sciences by Professor Armando J. L. Pombeiro (Instituto Superior Técnico, Universidade de Lisboa, Portugal), a member of our Scientific Board. The overall theme of this international event was 'Science for Sustainability', in line with the United Nations Sustainable Development Goals. We are most grateful to Professor Armando J. L. Pombeiro for his efforts in promoting *Comptes Rendus Chimie*.

Finally, it is my pleasure to warmly thank the associate editors and members of the editorial board of *Comptes Rendus Chimie*, the editorial and production staff, in particular Julien Desmarets (scientific secretary), for their support and cooperation.

I wish you all a happy, fruitful and scientifically most rewarding New Year and look forward to receiving your manuscripts!

Pierre Braunstein
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