



INSTITUT DE FRANCE  
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# *Comptes Rendus*

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## *Chimie*

Pierre Braunstein

**Editorial January 2023 for *Comptes Rendus Chimie***

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Editorial / *Éditorial*

## Editorial January 2023 for *Comptes Rendus Chimie*

Pierre Braunstein<sup>®</sup>

Established in 1835 by François Arago, a French mathematician, physicist and astronomer, the *Comptes Rendus de l'Académie des sciences* have a rich and prestigious history, and I am very pleased to give you an update on the recent developments that have occurred recently with the *Comptes Rendus Chimie*. We still aim at covering the diverse aspects of chemistry, also at the frontiers with other disciplines, by publishing original research and accounts (short reviews and historic chronicles). Notes (preliminary communications) typically describe novel and important results, while full papers should provide a detailed account of new results. In all cases, the work should be of high general interest or outstanding specialized interest. Short reviews focusing on the author(s) research but placed in the context of the most recent advances in the field are most welcome. Furthermore, thematic issues coordinated by one or many guest editor(s) (upon invitation or spontaneous suggestions) are particularly attractive because they facilitate gaining an updated overview on rapidly expanding areas. We are most grateful to our authors and guest editors because they are responsible for the success of this journal and its increasing visibility.

Since 1 January 2020, *Comptes Rendus Chimie* have been fully Open Access online worldwide, with no fee for authors nor readers (“diamond model”) and this major development has been very well received by our authors and readers.

Three such thematic issues covering very diversified fields, have been published in 2022. These were, in chronological order:

- Microcrystalline pathologies: Clinical issues and nanochemistry (Guest editors: Dominique Bazin, Michel Daudon, Vincent Frochot, Emmanuel Letavernier, Jean-Philippe Haymanni)
- Sustainable Biomass Resources for Environmental, Agronomic, Biomaterials and Energy Applications. Part 3 (Guest editors: Mejdí Jeguirim, Salah Jellali, Besma Khiari)
- Active site engineering in nanostructured materials for energy, health and environment (Guest editors: Ioana Fechet, Doina Lutic)

Only submissions considered by the Editorial office to potentially meet the criteria given above are sent out to referees. We are fully aware that this policy can generate frustrations, but this is the only way to proceed given the number of submissions received by the Editorial Office. We all know how essential it is for a journal to be able to rely on high-level scientific referees with an ethic that lives up to their task and we also know that these colleagues are being increasingly solicited. We sincerely thank them for their contribution to the success of *Comptes Rendus Chimie* and we are particularly grateful to our 15 most active referees listed in Table 1.

The *Académie des sciences* has signed “The Declaration on Research Assessment (DORA)” which recognizes the need to improve the evaluation criteria applied to researchers as well as to their scientific production. Therefore, rather than emphasizing the Impact Factor of our journal, I prefer to highlight the quality and diversity of the contributions published

**Table 1.** Our 15 most active referees in 2022

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Pierre Grandclaudon (ENSC Lille, France)
Doina Lutic (Alexandru Ioan Cuza University of Iasi, Romania)
Rima Merkache (Université de Strasbourg, France)
Adriana Urda (University of Bucharest, Romania)
Maria Harja (Gheorghe Asachi Technical University of Iasi, Romania)
Salah Jellali (Sultan Qaboos University, Muscat, Oman)
Vincent Rogé (Luxembourg Institute of Science and Technology, Luxembourg)
Elise Boudierlique (Sorbonne Université & Hôpital Tenon, Paris, France)
Monika Jain (Banda University of Agriculture & Technology, Banda, India)
Ioan-Cezar Marcu (University of Bucharest, Romania)
Saliha Haddoum (Ecole Nationale Polytechnique Alger, Algeria)
Ralph Puchta (Friedrich-Alexander-Universität, Erlangen-Nürnberg, Germany)
Vasile Hulea (Université Montpellier, France)
Besma Khiari (National School of Engineers of Carthage, Tunis, Tunisia)
Nawel Outili (University of Constantine 3, Algeria)

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**Table 2.** The 20 articles (published since 1 January 2020) most viewed in 2022

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Title	Authors
Huiles essentielles et chiralité moléculaire	Louisa Aribi-Zouiouèche, Françoise Couic-Marinier
Scanning electron microscopy—a powerful imaging technique for the clinician	D. Bazin, E. Boudierlique, M. Daudon, V. Frochot, J.-P. Haymann, E. Letavernier, F. Tielens, R. Weil
Whitlockite structures in kidney stones indicate infectious origin: a scanning electron microscopy and Synchrotron Radiation investigation	D. Bazin, R. J. Papoular, E. Elkaim, R. Weil, D. Thiaudière, C. Pisapia, B. Ménez, N. S. Hwang, F. Tielens, M. Livrozet, E. Boudierlique, J.-P. Haymann, E. Letavernier, L. Hennet, V. Frochot, M. Daudon
Cystinuria and cystinosis are usually related to L-cystine: is this really the case for cystinosis? A physicochemical investigation at micrometre and nanometre scale	D. Bazin, M. Rabant, J. Mathurin, M. Petay, A. Deniset-Besseau, A. Dazzi, Y. Su, E. P. Hessou, F. Tielens, F. Borondics, M. Livrozet, E. Boudierlique, J.-P. Haymann, E. Letavernier, V. Frochot, M. Daudon
Les noms des éléments nous racontent leur histoire	Pierre Avenas
Foreword to Sustainable Biomass Resources for Environmental, Agronomic, Biomaterials and Energy Applications 2	Mejdi Jeguirim, Salah Jellali, Besma Khiari
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

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(continued on next page)

**Table 2.** (continued)

Title	Authors
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
XANES spectroscopy for the clinician	D. Bazin, S. Reguer, D. Vantelon, J.-P. Haymann, E. Letavernier, V. Frochot, M. Daudon, E. Esteve, H. Colboc
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
The crucial contribution of X-ray fluorescence spectroscopy in medicine	D. Bazin, E. Foy, S. Reguer, S. Rouzière, B. Fayard, H. Colboc, J.-P. Haymann, M. Daudon, C. Mocuta
Randall's plaque as the origin of idiopathic calcium oxalate stone formation: an update	E. Van de Perre, D. Bazin, V. Estrade, E. Boudierlique, K. M. Wissing, M. Daudon, E. Letavernier
Investigations on potential Tunisian biomasses energetic valorization: thermogravimetric characterization and kinetic degradation analysis	J. Mabrouki, M. A. Abbassi, B. Khiari, S. Jellali, M. Jeguirim
Théorie cinétique de l'équilibre chimique	Mathieu Lazerges, Sylvain Marque
Investigations on lignite use for lead removal from aqueous solutions under static and dynamic conditions: adsorption properties and mechanism exploration	A. Mlayah, S. Jellali, A. A. Azzaz, M. Jeguirim, H. Sellalmi, N. Hamdi
Medullary sponge kidney: what kind of stones?	M. Daudon, V. Frochot, D. Bazin, J.-P. Haymann, E. Letavernier
Inflammation plays a critical role in 2,8-dihydroxyadenine nephropathy	E. Boudierlique, E. Tang, J. Perez, H.-K. Ea, F. Renaudin, A. Coudert, S. Vandermeersch, D. Bazin, J.-P. Haymann, C. Saint-Jacques, V. Frochot, M. Daudon, E. Letavernier
Les scénarios énergétiques à l'épreuve du stockage des énergies intermittentes	Marc Fontecave, Dominique Grand
Pharmaceutical pollutants adsorption onto activated carbon: isotherm, kinetic investigations and DFT modeling approaches	M. Kebir, R. Bourzami, N. Nasrallah, S. E. I. Lebouachera, F. Dergal, R. Ladji, M. Trari, H. Ben Harharah, A. El Jery, A. A. Azzaz, L. Khezami
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in *Comptes Rendus Chimie*, as documented by the international awareness they have generated, with most views originating from the USA, France, China and India. The 20 most viewed and downloaded articles in 2022 are listed in Tables 2 and 3, respectively.

The most cited articles in 2022 are listed in Table 4.

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

Of course, our authors, guest editors and referees are responsible for the success of this journal and its

**Table 3.** The 20 articles (published since 1 January 2020) most downloaded in 2022

Title	Authors
Huiles essentielles et chiralité moléculaire	Louisa Aribi-Zouiouèche, Françoise Couic-Marinier
Foreword to Sustainable Biomass Resources for Environmental, Agronomic, Biomaterials and Energy Applications 2	Mejdi Jeguirim, Salah Jellali, Besma Khiari
Optimization of a cationic dye desorption from a loaded-lignocellulosic biomass: factorial design experiments and investigation of mechanisms	A. A. Azzaz, S. Jellali, M. Jeguirim, L. Bousselmi, Z. Bengharez, H. Akrouit
Competitive bio-sorption of basic dyes onto petiole palm tree wastes in single and binary systems	S. Jmai, S. Guiza, S. Jellali, M. Bagane, M. Jeguirim
Investigations on lignite use for lead removal from aqueous solutions under static and dynamic conditions: adsorption properties and mechanism exploration	A. Mlayah, S. Jellali, A. A. Azzaz, M. Jeguirim, H. Sellalmi, N. Hamdi
Investigations on potential Tunisian biomasses energetic valorization: thermogravimetric characterization and kinetic degradation analysis	J. Mabrouki, M. A. Abbassi, B. Khiari, S. Jellali, M. Jeguirim
Zinc phthalocyanine absorbance in the near-infrared with application for transparent and colorless dye-sensitized solar cells	T. Baron, X. Zarate, Y. Hidalgo-Rosa, M. Zambrano-Angulo, K. Mall-Haidaraly, R. Pino-Rios, Y. Pellegrin, F. Odobel, G. Cárdenas-Jirón
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
Thermal behaviour of impregnated olive stones with phosphoric acid via TGA-MS	A. Bedoui, S. Souissi-Najar, S. S. Idris, N. Abd Rahman, A. Ouederni
Les scénarios énergétiques à l'épreuve du stockage des énergies intermittentes	Marc Fontecave, Dominique Grand
MAPYRO: the French Fellowship of the Pyrrolic Macrocylic Ring	Bernard Boitrel, Jean Weiss
Whitlockite structures in kidney stones indicate infectious origin: a scanning electron microscopy and Synchrotron Radiation investigation	D. Bazin, R. J. Papoular, E. Elkaim, R. Weil, D. Thiaudière, C. Pisapia, B. Ménez, N. S. Hwang, F. Tielens, M. Livrozet, E. Boudierlique, J.-P. Haymann, E. Letavernier, L. Hennet, V. Frochot, M. Daudon
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ORR activity of metalated phenanthroline-strapped porphyrin adsorbed on carbon nanotubes	M. Hanana, C. Kahlfuss, J. Weiss, R. Cornut, B. Jusselme, J. A. Wytko, S. Campidelli
Optimal parameters and structural composition of bio-oil and biochar from intermediate pyrolysis of red algal biomass	H. Bouaik, A. Tabal, A. Barakat, K. El Harfi, A. Aboulkas
A journey into metal–carbon bond homolysis	Rinaldo Poli
Fiat Lux ... how Alessandro Volta illuminated his scripts	E. Barberis, M. Manfredi, E. Marengo, G. Zilberstein, S. Zilberstein and P. G. Righetti
Théorie cinétique de l'équilibre chimique	Mathieu Lazerges, Sylvain Marque
Synthesis of barium alkylbenzene sulfonate and its behavior as a flow improver for crude oil	Z. Zhou, W. Zhang, F. Zhang, X. Zhang, S. Dong, J. Zhang, G. Chen
A detailed UV-Vis spectral investigation of six azo dyes derived from benzoic- and cinnamic acids: experimental and theoretical insight	L. Matović, J. Ladarević, Ž. Vitnik, V. Vitnik, D. Mijin

**Table 4.** The 15 articles (all years) with the most citations in 2022

Title	Authors
Sacrificial electron donor reagents for solar fuel production	Yann Pellegrin, Fabrice Odobel
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
Titanium dioxide photocatalysis: present situation and future approaches	Akira Fujishima, Xintong Zhang
Synthesis, chemistry, physicochemical properties and industrial applications of amino acid surfactants: A review	D. B. Tripathy, A. Mishra, J. Clark, T. Farmer
Comprehensive morpho-constitutional analysis of urinary stones improves etiological diagnosis and therapeutic strategy of nephrolithiasis	M. Daudon, A. Dessombz, V. Frochot, E. Letavernier, J.-P. Haymann, P. Jungers, D. Bazin
Some aspects of green solvents	Katharina Häckl, Werner Kunz
Removal of fluoride from groundwater using natural clay (kaolinite): Optimization of adsorption conditions	N. Nabbou, M. Belhachemi, M. Boumelik, T. Merzougui, D. Lahcene, Y. Harek, A. A. Zorpas, M. Jeguirim
Contributions of organic electrosynthesis to green chemistry	Hans J. Schäfer
Occurrence, fate and removal efficiencies of pharmaceuticals in wastewater treatment plants (WWTPs) discharging in the coastal environment of Algiers	Amine Elmouatezz Bellah Kermia, Djamila Fouial-Djebbar, Mohamed Trari
Water as a green solvent combined with different techniques for extraction of essential oil from lavender flowers	A. Filly, A. S. Fabiano-Tixier, C. Louis, X. Fernandez, F. Chemat
Hexavalent chromium quantification in solution: Comparing direct UV-visible spectrometry with 1,5-diphenylcarbazide colorimetry	Arnaud Sanchez-Hachair, Annette Hofmann
Vibrational spectroscopies to investigate concretions and ectopic calcifications for medical diagnosis	Michel Daudon, Dominique Bazin
Polymer ageing: physics, chemistry or engineering? Time to reflect	Jim R.White
Low-cost ceramic membranes: Synthesis, classifications, and applications	Mansour Issaoui, Lionel Limousy
Structural analysis of spin-crossover materials: From molecules to materials	Eric Collet, Philippe Guionneau

increasing visibility and we are most grateful to them for their commitment.

Finally, I would like to warmly thank the 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.

The continuing success of *Comptes Rendus Chimie* depends on you! We welcome any suggestion you may have to help us meet your expectations!

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

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