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Content

New: Free Radicals: Fundamentals and Applications in Organic Synthesis

Radical chemistry is undergoing a renaissance, both in the selective generation of organic radicals and in their use in organic synthetic reactions. Free Radicals: Fundamentals and Applications in Organic Synthesis, edited by Louis Fensterbank and Cyril Ollivier, both renowned radical chemists based at the Sorbonne University in Paris, presents these key developments, reviewed by some of the most well-known names in the field, in a readily accessible and practical fashion.

Topics covered in Volume 1 include:

• Improving Radical Persistence through Confinement
  M. P. Bertrand, E. Besson, and S. Gastaldi

• Nitroxides in Organic Synthesis
  G. Casano and O. Ouari

• Modelling Radicals and Their Reactivities
  E. Derat and B. Braïda

• Electron Catalysis
  E. Shirakawa

• Photochemistry and Radical Generation: Approaches in Mechanism Elucidation
  S. B. Cahoon and T. P. Yoon

• Sulfur-, Selenium-, and Silicon-Centered Radicals
  A. Kaga and H. Yorimitsu

• Phosphorus-Centered Radicals
  C. Bellanger, S. Chelli, and S. Lakhdar

• Nitrogen-Centered Radicals
  X.-L. Lu, B. Wang, and S. Chiba

• Oxygen-Centered Radicals
  J. Zhang, D. Liu, and Y. Chen

• Boron-Centered Radicals
  F.-L. Zhang and Y.-F. Wang

• Generation of Radicals from Organoboranes
  E. André-Joyaux, L. Gnägi, C. Meléndez, V. Soulard, and P. Renaud

• Intermolecular Radical C-H Functionalization
  M. Bietti and F. Dénès

• Intramolecular Hydrogen-Atom Transfer
  S. M. Treacy, X. Zhang, and T. Rovis

• Palladium(I)-Mediated Reactions
  G. Maestri and A. Serafino
New: Science of Synthesis Knowledge Updates

SOS is continuously updated with high-quality content using clearly defined criteria for method selection as well as established editorial processes. The Editorial Board, in conjunction with the volume editors and expert authors, reviews the whole field of synthetic organic chemistry as presented in SOS and evaluates significant developments in synthetic methodology.

This release will see the addition of one new update volume comprising approx. 450 printed pages.

SOS Knowledge Updates 2021/2 highlights:

A revised chapter on the synthesis of germynes (N. Takeda) and updates on arylstannanes (J. Vrana and A. Ruzička) and α-boryl carbonyl compounds (A. Trofimova, M. Sirvinskas, and A. K. Yudin), including MIDA boronates.

A new chapter on azaborines (borazines) (G. H. M. Davies and S. R. Wisniewski), as well as an update on the synthesis of thiopyrylium salts (M. Wang and X. Jiang).

New chapters on 1,2-diimines (R. Isovitsch) and 1,3-diimines, also known as β-diketimines (K. Chand, Umesh, D. P. Dorairaj, and S. C. N. Hsu), both of which are important ligands for transition-metal complexes.

A new chapter on piperazines (Z.-S. Ye), saturated cyclic diamines that occur widely in natural products and pharmaceuticals.

An update on cyclobutanes (Y. Xiong, R. Guo, and G. Z. Zhang), with a focus on transition-metal catalyzed and photochemical approaches to these strained carbocyclic species.

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