

## **Tetrahedron Vol. 62, No. 27, 2006**

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# The chemistry of radical ions

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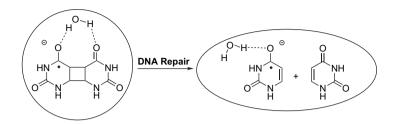
Heinz D. Roth,\* Torsten Herbertz, Ronald R. Sauers\* and Hengxin Weng

Electron donor systems bearing tethered hydroxy functions are converted upon photo-induced electron transfer to mono-, bi-, or tricyclic ethers by intramolecular nucleophilic substitution or capture via four- to seven-membered transition states. Geraniol and nerol undergo tandem-cyclizations as 1,5- and/or 1,6-C-C cyclizations precede nucleophilic capture.

# Explicit and implicit solvation of radical ions: the cycloreversion of CPD dimers

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### Enantioselective alkene radical cations reactions

David Crich,\* Michio Shirai, Franck Brebion and Sochanchingwung Rumthao

$$\begin{array}{c|c}
 & P(OR')_2 \\
 & P(O$$

# Distannane mediated reaction of N-acyliminium ion pools with alkyl halides. A chain mechanism involving radical addition followed by electron transfer

pp 6519-6525

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# Organolithiums by reductive lithiation: the catalytic aromatic method versus the use of preformed aromatic radical-anions. Naphthalene can behave as a catalyst or an inhibitor

pp 6526–6535

Ao Yang, Heather Butela, Kai Deng, Mary Dosch Doubleday and Theodore Cohen\*

Catalytic EtO + t-BuCHO 
$$\frac{1.8 \text{ eq Li, 0 °C}}{2.\text{ H}_2\text{O}}$$
  $\frac{0.05 \text{ eq DBB, THF}}{2.\text{ H}_2\text{O}}$   $\frac{OH}{Bu}$   $OEt$   $34\%$   $Z:E=7:1$   $OH$   $OEt$   $34\%$   $Z:E=7:1$   $OH$   $OEt$   $OET$ 

Anodic cyclization reactions: probing the chemistry of N,O-ketene acetal derived radical cations Yung-tzung Huang and Kevin D. Moeller\*

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Annulated heterocycles through a radical-cation cyclization: synthetic and mechanistic studies Jeffrey B. Sperry and Dennis L. Wright\*

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A computational study of solution effects on the disproportionation of electrochemically generated polycyclic aromatic hydrocarbon radical anions. Thermodynamics and structure

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## C-S bond cleavage in the sensitized photooxygenation of tert-alkyl phenyl sulfides. The role of superoxide anion

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Enrico Baciocchi,\* Tiziana Del Giacco,\* Paolo Giombolini and Osvaldo Lanzalunga\*

$$H_3C - \stackrel{R_1}{C} - \stackrel{NMQ^+/O_2}{E_2} \longrightarrow H_3C - \stackrel{R_1}{C} - \stackrel{N}{C} - \stackrel{N}{C$$



#### Externally sensitized mesolytic fragmentations in dithiane-ketone adducts

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Tiffany P. Gustafson, Alexei N. Kurchan and Andrei G. Kutateladze\*

# Photoinduced electron-transfer systems consisting of electron-donating pyrenes or anthracenes and benzimidazolines for reductive transformation of carbonyl compounds

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Eietsu Hasegawa,\* Shinya Takizawa, Takayuki Seida, Akira Yamaguchi, Naoto Yamaguchi, Naoki Chiba, Tomoya Takahashi, Hiroshi Ikeda and Kimio Akiyama

# Facile ring opening of siloxy cyclopropanes by photoinduced electron transfer. A new way to $\beta$ -keto radicals

pp 6589-6593

Heiko Rinderhagen, Prashant A. Waske and Jochen Mattay\*

#### OTHER CONTENT

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(*p*<sup>+</sup> Supplementary data available via ScienceDirect

### **COVER**

The cover illustrates an electron transfer from a donor molecule to an acceptor molecule to form a radical cation and a radical anion, which are the featured reactive intermediates in this Symposium-in-Print. Numerous downstream processes can occur upon forming these species. The structures illustrate a subset of the intermediates that are accessed in the work described in this issue, en route to a wealth of unique reactivity. © 2006 P. E. Floreancig. Published by Elsevier Ltd.



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