



Short communication

Electron spin resonance study of free radicals generated from retinyl- and ionyl-derivatives

Author links open the overlay panel. Numbers correspond to the affiliation list which can be exposed by using the show more link.

[Raphael C. Mordi](#), [John C. Walton](#)

[Show more](#)

Choose an option to locate/access this article:

Check if you have access through your login credentials or your institution.

[Check access](#)

[Purchase](#)

Get Full Text Elsewhere

[doi:10.1016/0009-3084\(90\)90062-V](https://doi.org/10.1016/0009-3084(90)90062-V)

[Get rights and content](#)

Abstract

Free radicals generated from α - and β -ionyl bromides gave well resolved ESR spectra, but retinyl bromide and chloride gave only broad signals. Delocalised radicals were also spectroscopically observed on hydrogen abstraction from α -ionane, α -ionyltrimethylsilylether and buten-3-ynyl-2,6,6-trimethyl-2-cyclohexene. Retinyl and β -ionyl radicals, derived from the corresponding xanthates, were successfully spin trapped with nitrosodurene. The results suggested that the secondary sites C(7) and C(9) were the most reactive in the β -ionyl radical

and that the secondary sites C(7) and C(11) and probably the primary site C(15) were the most reactive in the retinyl radical.

Keywords

- electron spin resonance;
- spin trapping;
- retinyl derivatives;
- ionyl derivatives

open in overlay

Copyright © 1990 Published by Elsevier Ireland Ltd.

- [About ScienceDirect](#)
- [Contact and support](#)
- [Information for advertisers](#)
- [Terms and conditions](#)
- [Privacy policy](#)

Elsevier

Copyright © 2015 Elsevier B.V. or its licensors or contributors. ScienceDirect® is a registered trademark of Elsevier B.V.