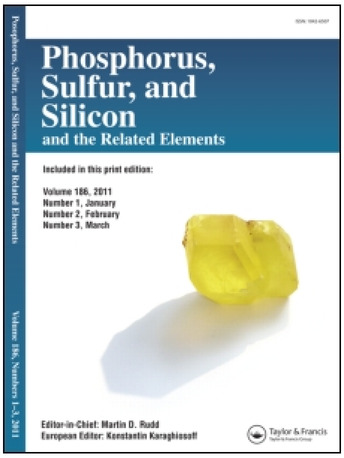

Phosphorus, Sulfur, and Silicon and the Related Elements
Publication details, including instructions for authors and subscription information:
http://www.informaworld.com/smpp/title~content=t713618290

ADDUCTS OF GROUP IV B ORGANOMETALLIC RADICALS WITH DITHIENYL KETONES AND SYMMETRIC DITHIENOBENZOQUINONES

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To cite this Article Alberti, Angelo and Pedulli, Gian Franco(1979) 'ADDUCTS OF GROUP IV B ORGANOMETALLIC RADICALS WITH DITHIENYL KETONES AND SYMMETRIC DITHIENOBENZOQUINONES', Phosphorus, Sulfur, and Silicon and the Related Elements, 6: 1, 5

To link to this Article: DOI: 10.1080/03086647908080276

URL: http://dx.doi.org/10.1080/03086647908080276

Phosphorus and Sulfur
1979, Vol. 6, p. 5

ADDUCTS OF GROUP IV B ORGANOMETALLIC RADICALS WITH DITHIENYL KETONES AND SYMMETRIC DITHIENOBENZOQUINONES.

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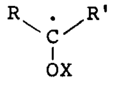
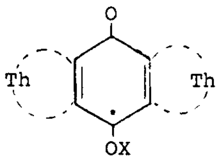
The radicals of general formula A or B

R,R'
2-Thienyl
3-Thienyl
2-Thieno[3,2b]Thienyl
2-Thieno[2,3b]Thienyl


(A)

X
$\mathrm{SiR_3}$
$\mathrm{GeR_3}$
$\mathrm{SnR_3}$


Th=thiophen
(B)

have been produced either by irradiating a melt of the parent compound and the appropriate Silane (Germanium Hydride, ditin derivative) or by photolyzing a solution of the reactants in di-^{t}Butylperoxide. In the resulting ketyl-like radicals the proton hyperfine couplings decrease along the series X=H>Si>Ge>Sn, with exception of the thiophen analogue of fluorenone where the trend is almost reversed: X=Si>Ge>H≃Sn. This may suggest that the electron releasing or electron withdrawing behaviour of the X substituent (X = MR$_3$) may depend on the nature of the substrate. In the thiophen analogues of anthraquinone there is no evidence of intramolecular migration of the organometallic group.