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Specific features of reaction of 2-- -benzo[e][1,3,2]dioxaphosphinin-4-ones with perfluorodiacetyl. Synthesis and steric structure of 4',5'- bis(trifluoromethyl)-4-oxo-2-(2,2- 3,3-tetrafluoropropoxy)-2λ 5- spiro[benzo[e][1,3,2]dioxaphosphinine-2,2'-[1,3,2] dioxaphosphole]

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Abstract

2-R-benzo[e][1,3,2]dioxaphosphinin-4-ones react with perfluorodiacetyl under mild conditions to form relatively labile spirophosphoranes containing a 1,3,2-dioxaphosphole ring. These compounds gradually convert to more stable 2-R-4,5-bis(trifluoromethyl)-1,3-2λ5-dioxaphosphole 2-oxides and diastereometric 2-R-4-(trifluoroacetyl)-4-(trifluoromethyl)benzo[f][1,3, 2λ5]dioxaphosphepine 2-oxides, whose structure was confirmed by means of NMR and IR spectroscopy. The structure of 4',5'-bis(trifluoromethyl)-4-oxo-2-(2,2,3,3-tetrafluoropropoxy)-2λ 5-spiro[benzo[e][1,3,2]dioxaphosphinine-2,2'-[1,3,2]dioxaphosphole] was confirmed by X-ray diffraction analysis. ©2005 Pleiades Publishing, Inc.

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