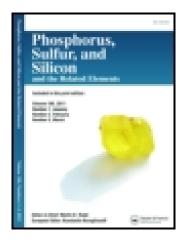
This article was downloaded by: [Tulane University] On: 01 February 2015, At: 18:48 Publisher: Taylor & Francis Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Phosphorus, Sulfur, and Silicon and the Related Elements

Publication details, including instructions for authors and subscription information: http://www.tandfonline.com/loi/gpss20

Palladium-Catalyzed Aryl-Acylation of Alkene

Motoki Yamane^a, Yuko Kubota^a & Koichi Narasaka^a ^a University of Tokyo, Japan Published online: 27 Oct 2010.

To cite this article: Motoki Yamane , Yuko Kubota & Koichi Narasaka (2002) Palladium-Catalyzed Aryl-Acylation of Alkene, Phosphorus, Sulfur, and Silicon and the Related Elements, 177:8-9, 2105-2105, DOI: <u>10.1080/10426500213406</u>

To link to this article: http://dx.doi.org/10.1080/10426500213406

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at http://www.tandfonline.com/page/terms-and-conditions



PALLADIUM-CATALYZED ARYL-ACYLATION OF ALKENE

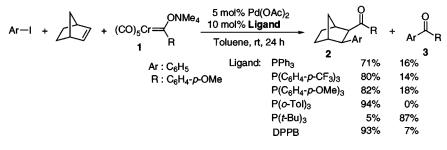
Motoki Yamane, Yuko Kubota, and Koichi Narasaka University of Tokyo, Japan

(Received July 29, 2001; accepted December 25, 2001)

Palladium-catalyzed aryl-acylation reactions of alkenes proceed by using acylchromates as the acyl donors. The yield of the product considerably depends on the added phosphine ligands.

Keywords: Aryl-acylation; palladium-catalyst; phosphine ligand

When iodoarene and norbornene were treated with an acylchromate complex 1 in the presence of palladium acetate, 2-acyl-3-arylnorbornane 2 was obtained with the formation of aryl ketone 3. The yield of the products and the ratio of aryl-acylated product 2 to aryl ketone 3 considerably depended on the phosphine ligands of the palladium catalyst. That is, the use of bulky aryl substituted phosphine ligand gave the aryl-acylated product 2 in high yield.



SCHEME 1

Address correspondence to Koichi Narasaka, Department of Chemistry, Graduate School of Science, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo, 113-0033, Japan. E-mail: narasaka@chem.s.u-tokyo.ac.jp