

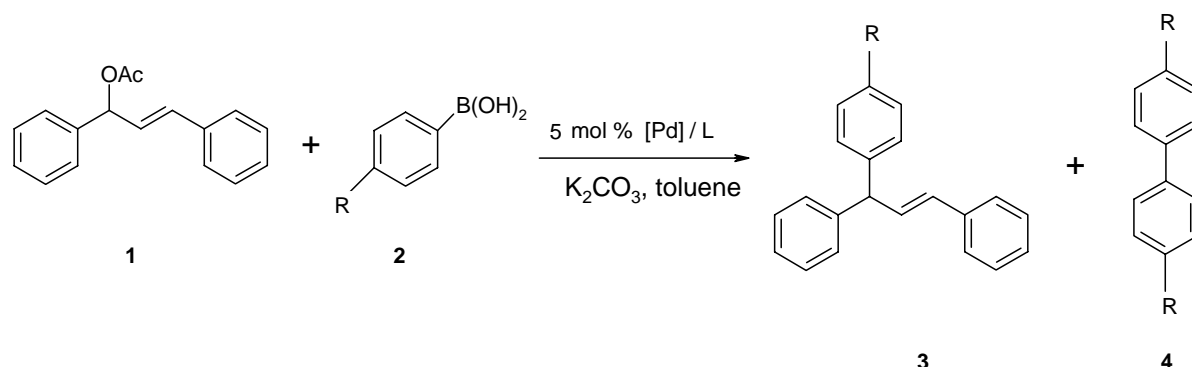
**Pd-CATALYSED ARYLATION OF *rac*-(*E*)-3-ACETOXY-1,3-DIPHENYPRO-1-ENE WITH ARYLBORONIC ACIDS UNDER NON-CLASSICAL CONDITIONS**

Viera Poláčková<sup>a</sup>, Martin Hut'ka<sup>a</sup>, Štefan Toma<sup>a\*</sup> and C. Oliver Kappe<sup>b</sup>

<sup>a</sup>Department of Organic Chemistry, Faculty of Natural Sciences, Comenius University, Mlynská dolina CH-2, SK-842 15 Bratislava, Slovak Republic

<sup>b</sup>Institute of Organic Chemistry and Biochemistry, Karl-Francens University, Heinrichstrasse 28, A-8010 Graz, Austria

Pd-Catalysed arylation of *rac*-(*E*)-3-acetoxy-1,3-diphenylprop-1-ene with arylboronic acids was studied. Reactions were performed under different conditions like ultrasonic irradiation, thermal heating as well as microwave irradiation. Several solvents, including ionic liquids, were tested as the reaction media. Arylation was accompanied also with aryl homocoupling reaction (Scheme).



From the all tested methods as the best conditons were found microwave irradiation using Pd<sub>2</sub>(dba)<sub>3</sub>CHCl<sub>3</sub> / PPh<sub>3</sub> as the catalytic system, K<sub>3</sub>PO<sub>4</sub> as the base and toluene as the solvent in the case of arylboronic acids with electron-withdrawing as well as electron-donating substituents. Moderate to high yields of the desired products were isolated under these conditions.

This work was carried out under the auspices of COST D32/0010/04 project and financial help of Ministry of Education Slovak Republic (VTP project No.1012/2003) is acknowledged.

\* Corresponding author. Tel.: +421-7-60296208; fax: +421-7-60296690; e-mail: toma@fns.uniba.sk