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### Multicore metal catalysts effective for suzuki-heck couplings in water

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Palladium catalyzed Suzuki and Heck coupling reactions are the most powerful synthetic method for forming biaryls. These cross-coupling reactions of aryl-halides with organoboron compounds are an essential tools of almost every synthetic chemist, being used in the synthesis of pharmaceuticals, ligands, natural products, polymers and speciality molecules. Recently cross-coupling reactions in aqueous media have sparked research interest. Water is an inexpensive, readily available, non-toxic and enviromentally friendly alternative solvent in organic synthesis but is especially important in facilitating catalyst-product seperation. According to our previous publications, multicore palladium complexes have some advantages over analogous monocore complexes. Multicore complexes may have adidtonal states, which give the complex extra stability. Interaction between nearby metal centers could potentially cause increased reaction yield or yield transformation rates which is not possible via monocore complexes. Distence between metal centers also plays an impotent role in catalytic performance. In this publication, we report a series of water soluble multicore palladium(II) diimine complexes as catalysts for Suzuki and Heck reactions in aqueous media and make comparision against their analogous monocore complexes.

#### Biography

Emre Hanhan has completed his PhD at the age of 28 from Bulent Ecevit University – Turkey. He did his postdoctoral studies in Canada – University of Prince Edwards Island with Dr. Michael Shaver and in Spain – Universidad Politecnica de Valencia with Prof. Ramon Martinez Manez. Dr. Hanhan has published more than 10 papers in reputed journals, He is still working in Bulent Ecevit University as an assistant professor.

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