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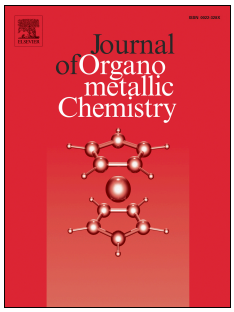

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Duygu Elma Karakaş, Feyyaz Durap, Akın Baysal, Yusuf Selim Ocak, Khadichakhan Rafikova, Eda Çavuş Kaya, Alexey Zazybin, Hamdi Temel, Cezmi Kayan, Nermin Meriç, Murat Aydemir

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Transfer Hydrogenation Reaction Using Novel Ionic Liquid Based Rh(I) and Ir(III)-Phosphinite Complexes as catalyst

Duygu ELMA KARAKAŞ[a], Feyyaz DURAP[b,c], Akın BAYSAL[b], Yusuf Selim OCAK[c], Khadichakhan RAFIKOVA[d], Eda ÇAVUŞ KAYA[c], Alexey ZAZYBİN[d], Hamdi TEMEL[c,e], Cezmi KAYAN[b], Nermin MERİÇ[b,*] , Murat AYDEMIR[b,c]

[e] *Science and Technology Application and Research Center, Siirt University, Siirt, 56100, Turkey*

[b] *Department of Chemistry, Faculty of Science, University of Dicle, 21280 Diyarbakir, Turkey*

[c] *Science and Technology Application and Research Center (DUBTAM) , Dicle University, Diyarbakir, 21280, Turkey*

[d] *Department of Chemical Engineering, Kazakh-British Technical University, 050000 Almaty, Kazakhstan*

[e] *Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Dicle University, Diyarbakir, 21280, Turkey*

For the first time, (1-chloro-3-(3-methylimidazolidin-1-yl)propan-2-yl diphenylphosphinite chloride) (chloro η^4-1,5-cyclooctadiene rhodium(I))] and (1-chloro-3-(3-methylimidazolidin-1-yl)propan-2-yl diphenylphosphinite chloride) (dichloro η^5-pentamethylcyclopentadienyl iridium(III))] complexes have been synthesized with high yields. The novel catalysts were applied to transfer hydrogenation of various using 2-propanol as a hydrogen source. Notably, rhodium(I) complex is much more active in the transfer hydrogenation, giving the corresponding alcohols up to 99% conversions in 5 min (TOF $\leq$ 1176 h^{-1}).