

systems become competitive and give better results in terms of catalytic efficiency when reaction is carried out at 70-90°C. On the basis of our present and previously published results, we have proposed that both Cu(II) and Fe(III) catalysts entail the same coordinative redox mechanism comprised of the major stages of the complexation of both P₄ (or its derivative) and ROH to metal ion, the reduction of catalyst by P₄ (or its derivative), liberating organophosphorus products, and the oxidation of reduced form of catalyst by oxygen. Work is in progress to achieve optimisation of the catalytic production of the esters of phosphorus acids through the metal-mediated functionalisation of white phosphorus.

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