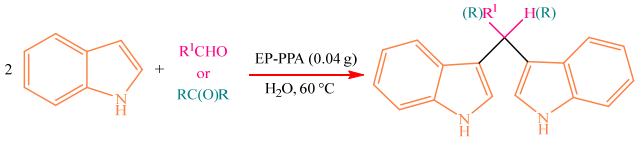
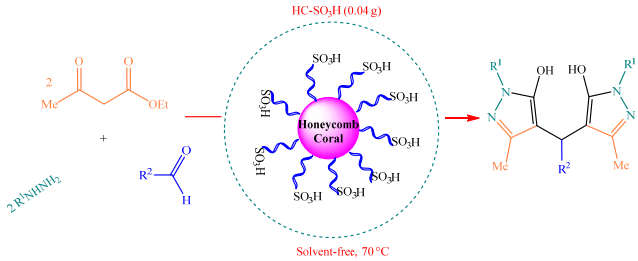
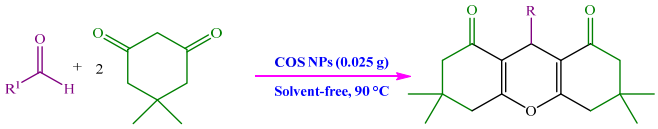
(G) The catalytic activity of the Expanded Perlite-Polyphosphoric acid (EP-PPA) was utilized as a new, effective, recyclable and eco-friendly heterogeneous catalyst for the synthesis of aryl/alkylbis(indolyl)methanes, in water. Additionally, shorter reaction times, cleaner reaction profiles and simple work-up procedures are some advantages of this protocol [9].



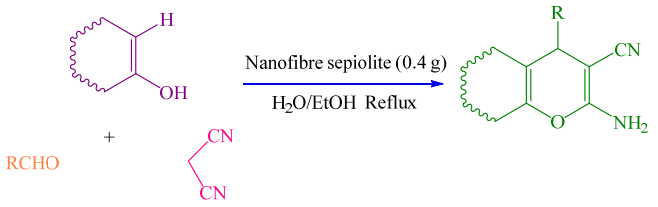
(H) In 2017, Akhlaghinia and co-workers introduced Sulfonated Honeycomb Coral (HC-SO_3H) as a novel, green and recoverable solid acid heterogeneous catalyst for the synthesis of 4,4'-(aryl methylene)bis(3-methyl-1*H*-pyrazol-5-ol)s. This approach has some advantages such as quick reaction times, non-toxicity of the catalyst and solvent-free conditions [10].



(I) The nano-structured solid catalyst (calcined oyster shell nanoparticles (COS NPs)) was reported by Akhlaghinia *et al.* in 2017 as an efficient and eco-friendly catalyst. COS NPs was used for the synthesis of 1,8-dioxo-octahydroxanthenes *via* the one-pot condensation reaction of 5,5-dimethyl cyclohexane-1,3-dione (dimedone) with various aldehydes under solvent-free conditions. This synthetic pathway is a green protocol offering important advantages, such as solvent-free reactions, reusability of the catalyst up to six runs, short reaction time and simple workup procedure [11].



(J) Nanofibre sepiolite has been also applied as a nanostructured and green catalyst for the rapid, clean, and highly efficient synthesis of 2-amino-4*H*-chromene derivatives. Aromatic aldehydes were reacted with various enolizable C-H bonds (such as dimedone, a-naphthol, resorcinol, and 4-hydroxy-2*H*-chromen-2-one), and malononitrile in a mixture of water/ethanol to produce desired products [12].



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