Supporting Information

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Green synthesis of α-aminophosphonates using ZnO nanoparticles as an efficient catalyst

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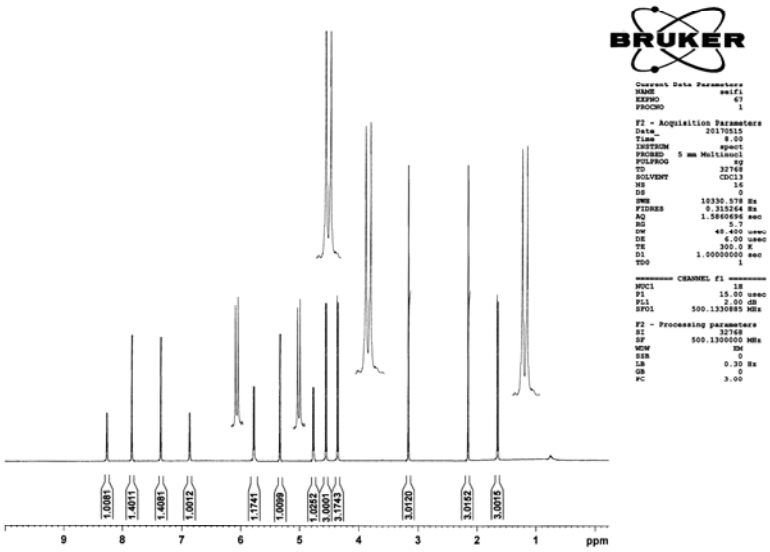
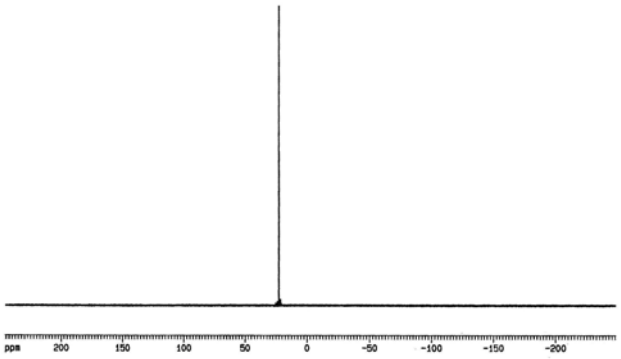
General procedure for the preparation of 4a–4h

To a stirred mixture of of 1-(6-hydroxy-2-isopropenyl-1-benzofuran-yl)-1-ethanone **1** (0.43 g, 2 mmol), methyl amine **3a** (0.062 g, 2 mmol and ZnO nanoparticles (0.016 g, 10 mol %) in water (5 mL) was added trimethyl phosphite **2a** (0.25 g, 2 mmol) after 15 min. After completion of the reaction [1 h; TLC (AcOEt-hexane 4:1)], the reaction mixture was filtered and the catalyst was washed with ethyl acetate. The solvent was evaporated from the mixture and the residue was purified by Et_2O to afford pure compound **4a**. All other compounds were prepared by the same procedure.

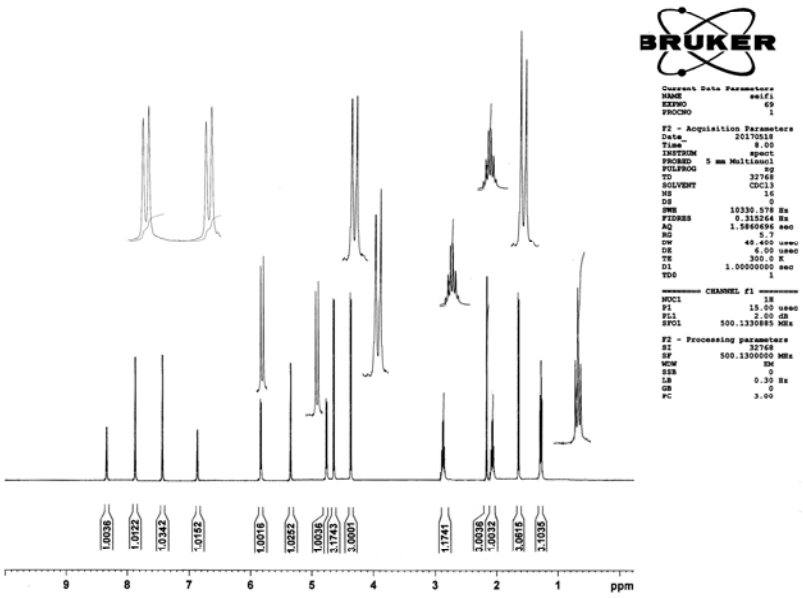
^{1}H NMR spectrum of **4a**



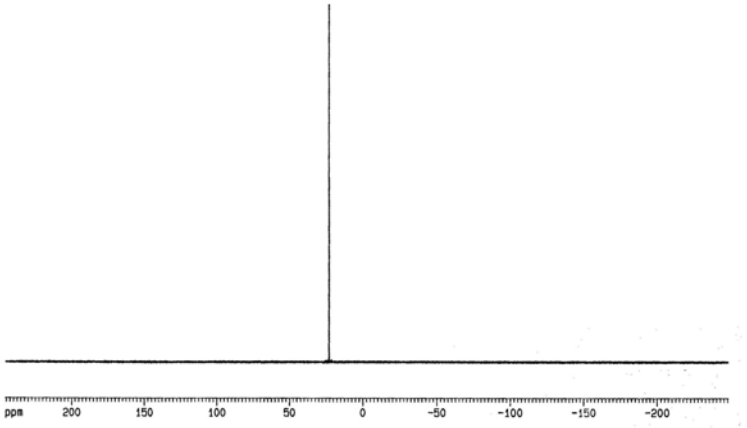
^{31}P NMR spectrum of **4a**



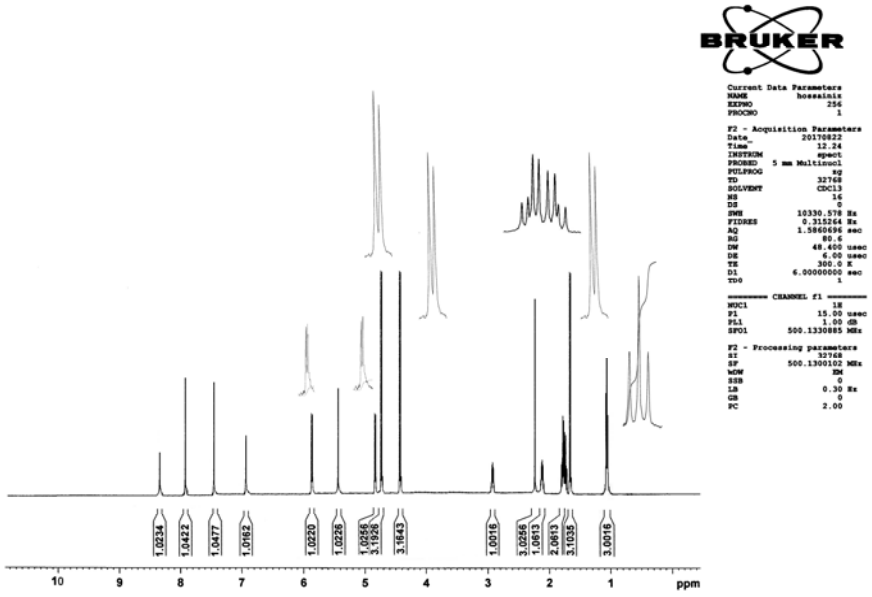
^{1}H NMR spectrum of **4b**



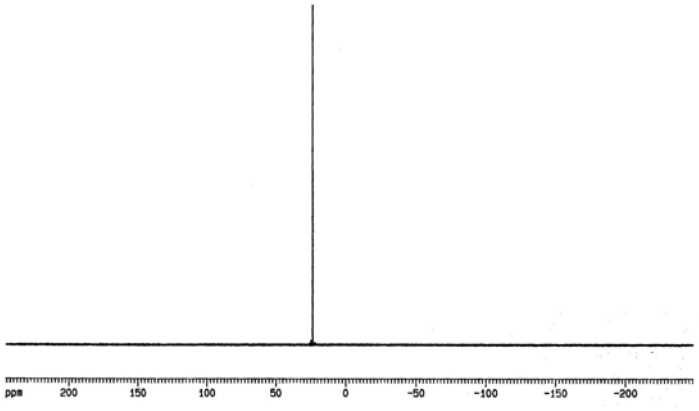
^{31}P NMR spectrum of **4b**



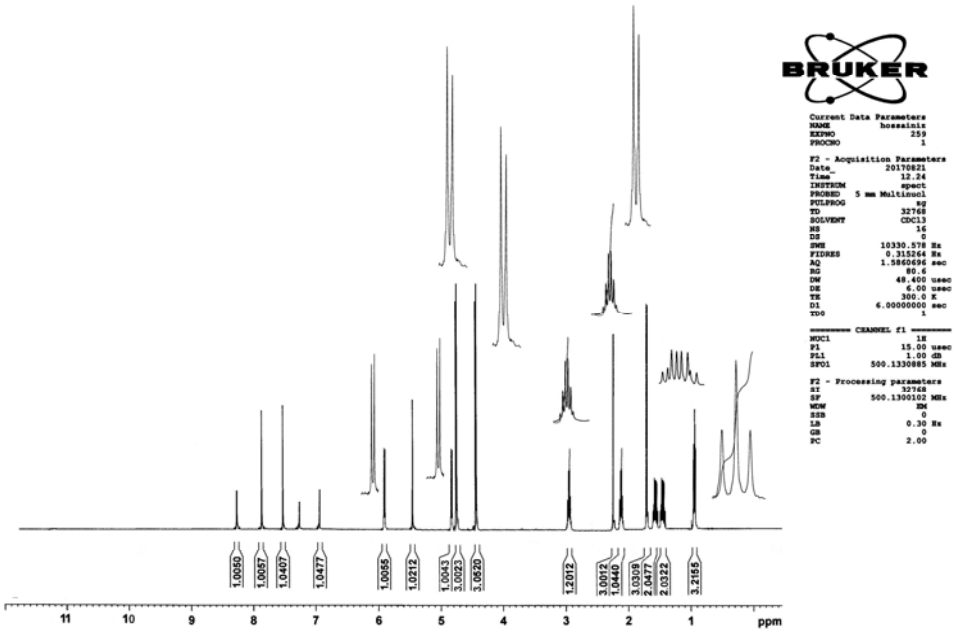
^{1}H NMR spectrum of **4c**



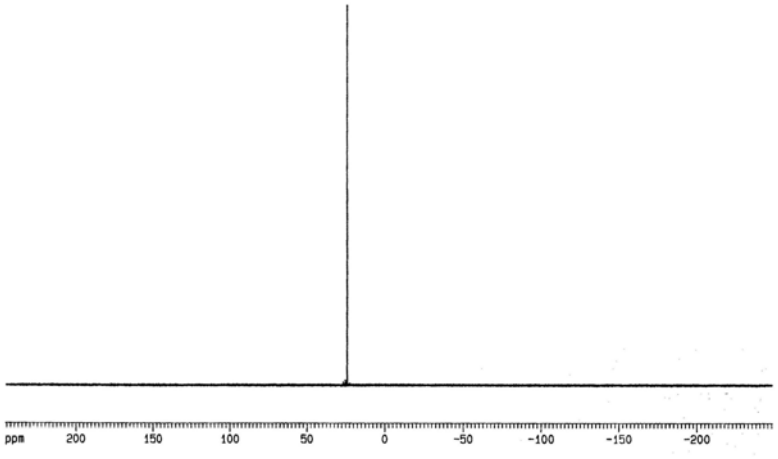
^{31}P NMR spectrum of **4c**



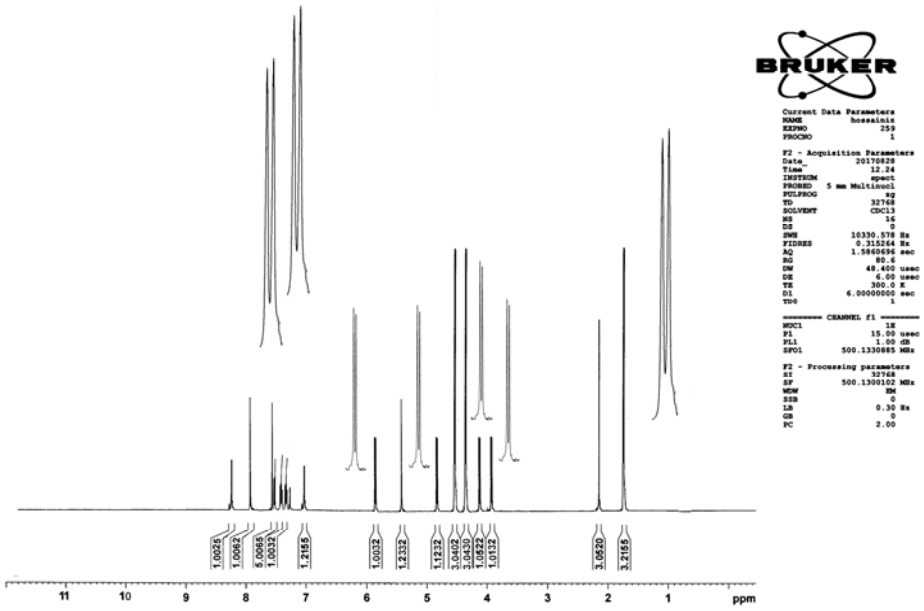
^{1}H NMR spectrum of **4d**



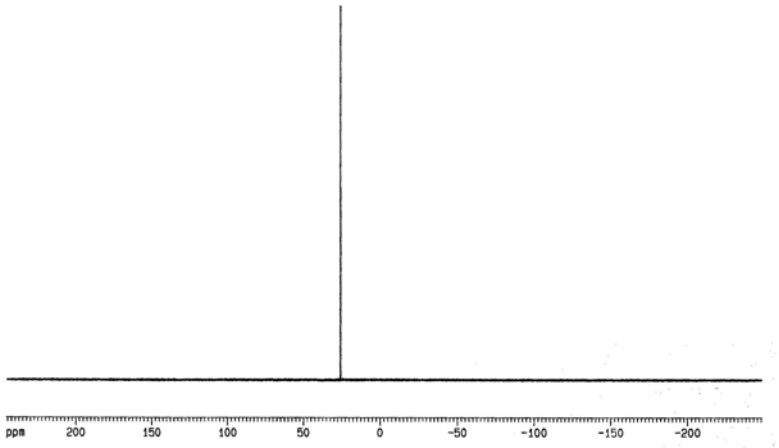
^{31}P NMR spectrum of **4d**



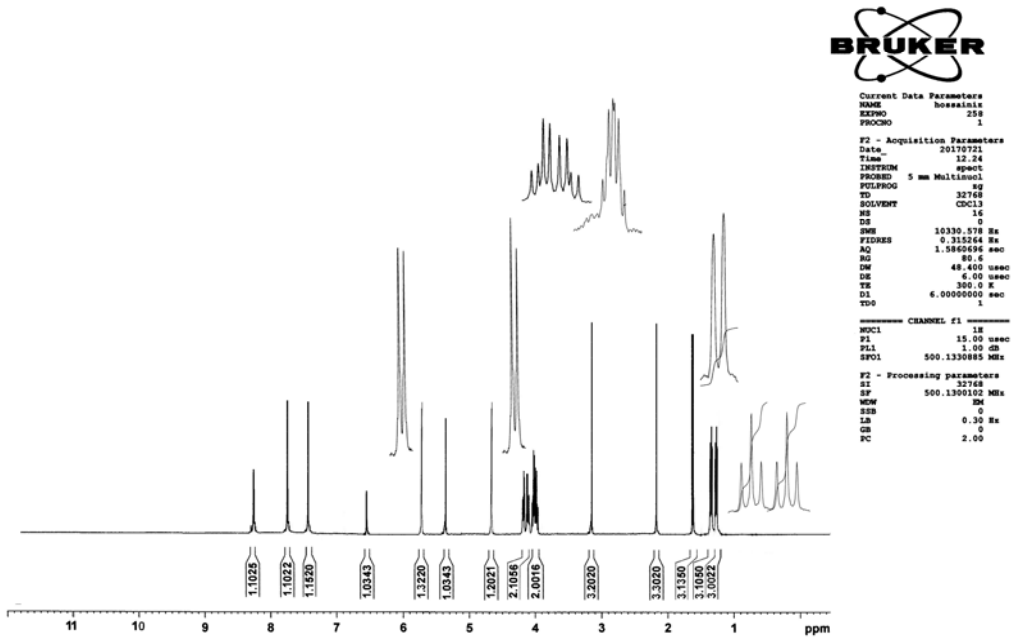
^{1}H NMR spectrum of **4e**



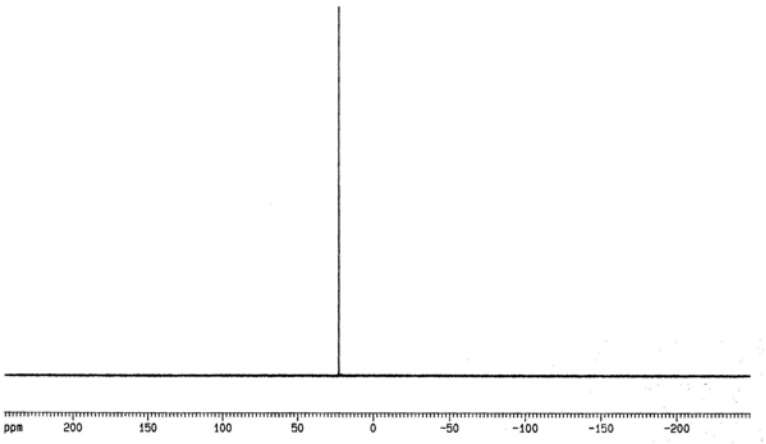
^{31}P NMR spectrum of **4e**



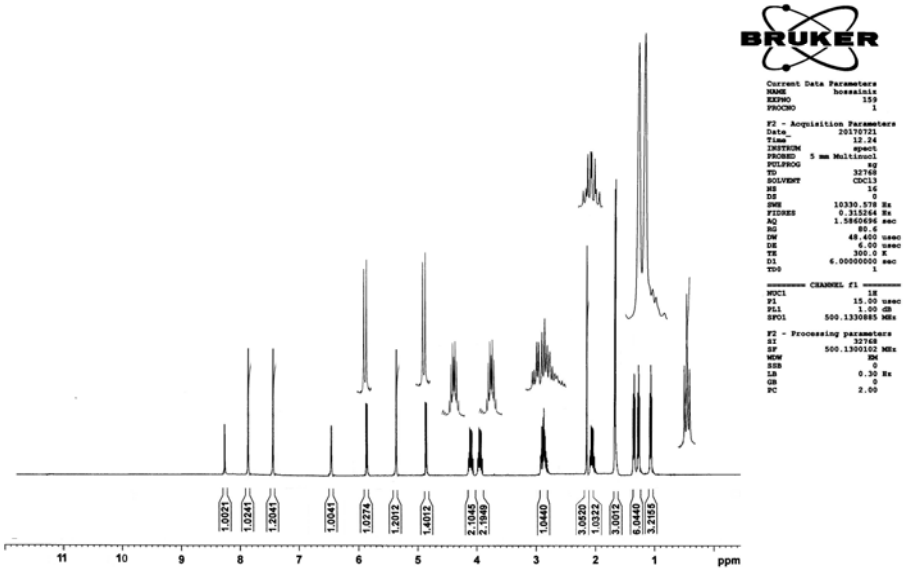
^{1}H NMR spectrum of **4f**



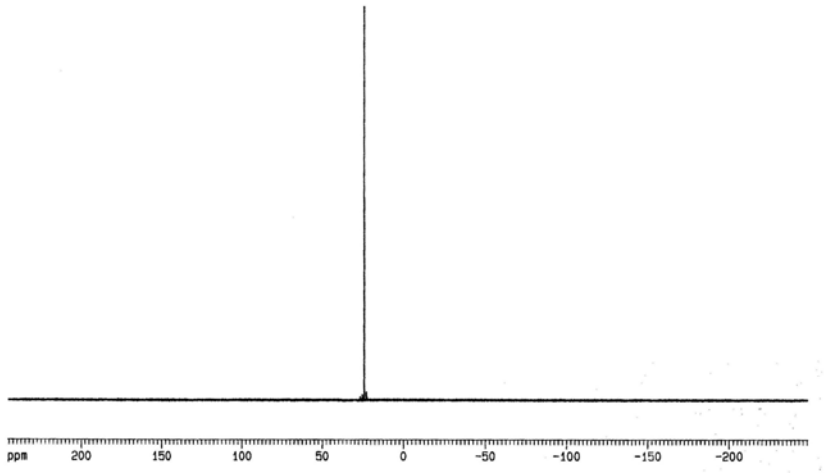
^{31}P NMR spectrum of **4f**



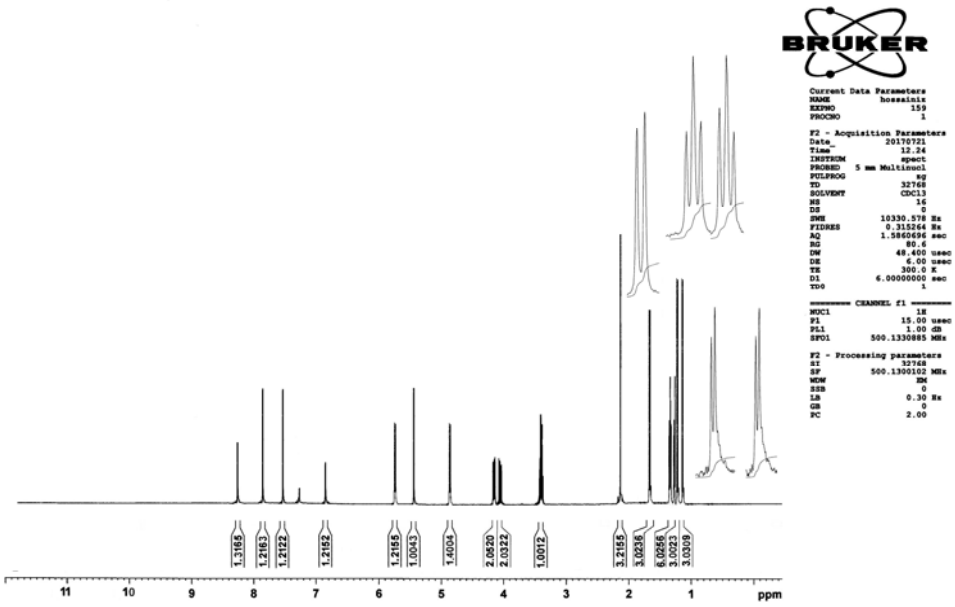
^{1}H NMR spectrum of **4g**



^{31}P NMR spectrum of **4g**



^{1}H NMR spectrum of **4h**



^{31}P NMR spectrum of **4h**