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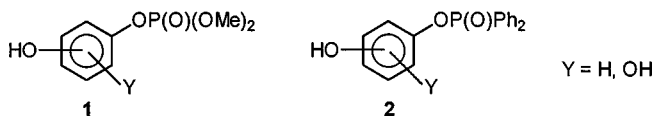
PHOSPHORYLATED AND PHOSPHINYLATED HYDROXY PHENOLS AS FLAME RETARDANT COMPONENTS

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The combination of phosphorus containing char formers, like ammonium polyphosphate, and polyol charring components, belongs to the most thoroughly studied flame retardant systems. Aryl phosphates form a traditional group of organophosphate flame retardants.¹ Preparation of the new target molecules, monophosphates **1** by the selective monophosphorylation of polyphenols, such as hydroquinone or floroglucinol is not easy. In this work, the optimum conditions of the monophosphorylation, as well as those of the monophosphinylation (to give compounds **2**) were explored. The reactive sites of the phosphates and phosphinates gave the chance to couple them with other synergistic components proposed earlier² to form new type of flame retarded polyolefin-based polymer composites.



SCHEME 1

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