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Synthesis of novel mono-component P-Br synergistic flame retardant 1,3-bis(5,5-dibromomethyl-1,3-dioxaphosphorinanyl-2-oxy) benzene

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5,5-Dibromomethyl-1,3-dioxaphosphoryl chloride was prepared by using dibromoneopentyl glycol and phosphorus oxychloride as raw materials and triethylamine as catalyst. Then 1,3-bis(5,5-dibromomethyl-1,3-dioxaphosphorinanyl-2-oxy)benzene was synthesized. The overall yield of two steps was 76.9%, and the structure of the above novel flame retardant was confirmed by means of elementary analysis, IR, MS and ¹H NMR spectra. The thermogravimetric analysis results showed that the novel flame retardant has high thermal stability and excellent char-forming property. The beginning decomposition temperature of title compound was above 301.0 °C, and the char yield was about 32.52% at 500 °C.

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A phosphorus-containing flame retardant, 5,5-dimethyl-1,3,2-dioxaphosphorinane-2-(2,4,6-tribromophenoxy)-2-oxide(DPDMO), was synthesized successfully and characterized by elemental analysis (EA), mass spectra (MS), infrared spectroscopy (FT-IR) and nuclear magnetic resonance (¹H NMR and ¹³C NMR). The melting point and the enthalpy of fusion of DPDMO were measured by differential scanning calorimeter (DSC), and the thermal stability of DPDMO was obtained by thermogravimetric analysis (TGA). The corresponding mono- and dimethyl-substituted cyclic phosphates are also polymerized but with less efficiency. The total synthesis of austrocorticinic acid 2 is described from methyl orsellinate dimethyl ether 4 and 6-ethyl-4-methoxy-2-pyrone 5. Read more. Article. The research work reports facile, eco-friendly microwave- assisted solvent free synthesis of coupled heterocyclic system 2-(1H-indol-3-yl)-4-substitued-2, 3-dihydrobenzo [1, 5] thiazepine derivatives obtained by cyclo condensation of 1-substitued-3(1H-indolyl)-2-propen-1-ones with 2-amino thiophenol in presence of eco-friendly catalyst zirconium(IV) oxy chloride, in. The data suggested that some of the compounds of the current series exhibited enhanced antihypertensive activity than the standard. As benzothiazepines are bioisosters of benzodiazepines, the synthesized novel indolyl-benzothiazepine derivatives were also screened for CNS activities such as CNS depressant activity by actophotometer and anticonvulsant activity by MES and PTZ model on mice. 1,3-Bis(trifluoromethyl)-5-bromobenzene was used to prepare the tetrakis[3,5-bis(trifluoromethyl)phenyl]borate ion which is a stabilizing counterion for highly electrophilic organic and organometallic cations. Packaging. 10, 50 g in glass bottle. Safety & Documentation. Safety Information. Personal Protective Equipment. Eyeshields, Gloves, half-mask respirator (US), multi-purpose combination respirator cartridge (US).