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The Phosphorus-Selenium Bond in Triarylphosphine and 5-Phenyldibenzophosphole Selenide Systems

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The Phosphorus-Selenium Bond in Triarylphosphine and 5-Phenyldibenzophosphole Selenide Systems

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It will be shown that 5-phenyldibenzophosphole is suitably described as a triarylphosphine compound. A study of the corresponding phosphole selenide and triarylphosphine selenide complexes leads to some interesting insight into the nature of the phosphorus-selenium bond. Aspects such as double-bond character, s-character and limiting bond length are discussed on the basis of NMR, IR and X-Ray crystallographic measurements. The relationships found are considered in view of both the steric and electronic properties of the parent phosphine compounds.