

Indium Triiodide Complexes of Bis(diphenylphosphino)ethane (dppe) and its Disulfide (dppeS₂)

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Bis(diphenylphosphino)ethane (dppe) and its disulfide (dppeS₂) react with two equivalents of indium triiodide to give high yields of the corresponding 1:2 adducts. According to crystal structure determinations, both compounds are molecular bis-terminal complexes with the ligands in an all-trans conformation. Contrary to previous findings for complexes of the indium trihalides and of GaBr₃ and GaI₃ with ditertiary phosphines in fixed cis-structure [bis(diphenylphosphino)ethene or -benzene], no iodide redistribution is observed to give the ionic species [(dppe)InI₂]⁺ [InI₄]⁻. The molecular structures are also retained in solution.

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