A. VELIAN, M. NAVA, M. TEMPRADO, Y. ZHOU, R. W. FIELD, C. C. CUMMINS*  
(MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, USA AND UNIVERSIDAD DE  
ALCALÁ, MADRID, SPAIN)  
A Retro Diels–Alder Route to Diphosphorus Chemistry: Molecular Precursor Synthesis, Kinetics of P₂ Transfer to  
1,3-Dienes, and Detection of P₂ by Molecular Beam Mass Spectrometry  

Pass the P₂

Significance: Cummins and co-workers have developed a novel system for thermally transferring the diphosphorus molecule P₂ from a transannular diphosphorus bisanthracene adduct 4 to various 1,3-dienes via a retro-Diels–Alder reaction.  
Comment: Treatment of 4 with platinum ethylene complex [(C₂H₄)Pt(PPh₃)₂] at room temperature furnishes the expected platinum diphosphorus complex (P₂)[Pt(PPh₃)₂], broadening the scope of this P₂ precursor to inorganic complexes.