the oxathietane to form the olefin requires a much higher activation energy (39.1 kcal/mol).

Another relevant point concerns the relative stability of the various oxygenated compounds. The formation of cyclic intermediates and final products are much more exothermic for phosphorus than for sulfur. This fact is probably related to the larger oxygen affinity for phosphorus than for sulfur.

Corey–Chaykovsky-Type Reaction. Preliminary results are given on Figure 1. Transition states for the oxirane formation have been located at the STO-3G* level and recalculated with the 4-31G* basis. Both structures can be viewed as intramolecular S_N2 transition states.[16] No minima have been located around these saddle points. This suggests that the trans betaines are transition structures (at least in the absence of solvent effects) and not intermediates as often proposed.

The activation energy for the sulfur is found lower than for the phosphorus. This can be understood in term of a better leaving group ability for the sulfide than for the phosphine.

Finally, our description does not support some aspects of the conventional representations of the Wittig and Corey–Chaykovsky reactions. In the Wittig-type reactions, no zwitterionic structures (cis betaines) have been located on the reaction path. In the Corey–Chaykovsky-type reactions, the open structures look like trans betaines but correspond to saddle points and not minima on the potential energy surface.

Full details of the calculations will be given in a forthcoming paper.

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Registry No. $H_3P{=}CH_2$, 36429-11-5; $H_2S{=}CH_2$, 63933-47-1; H_2CO, 50-00-0.

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[16] The ∠CCO angle is 91.6° in the case of phosphorus and 96.7° in the case of sulfur. The ∠PCC angle is 121°, and the ∠SCC angle is 130°.

Additions and Corrections

^{13}C–^{1}H Coupling Constants in Carbocations. 4. Conformations of Internal Cyclopropylcarbinyl Cations (Benzobicyclo[4.1.0]heptyl Cations) and Their Rearrangements to Naphthalenium Cations [*J. Am. Chem. Soc.* **1984**, *106*, 687]. David P. Kelly,* D. Ralph Leslie, and Bradley D. Smith

Page 693: The ^{13}C NMR assignments for compound **29** refer to a numbering scheme different from that given on structure **29** (p 692). The entry under **29** should read as follows: ^{13}C NMR δ 10.2 (t, J = 164 Hz, C_7), 26.6 (d, J = 169 Hz, C_1), 27.2 (q, J = 126 Hz, CH_3), 28.7 (d, d, J(av) = 121 Hz, C_4), 30.0 (q, J = 124 Hz, CH_3), 30.4 (d, J = 164 Hz, C_6), 30.4 (t, J = 127 Hz, C_3), 33.2 (s, C_5), 209.0 (s, C_2); etc.

Stepwise Metal-Assisted Oxidative Decarboxylation of Vanadium(V) Ethylenebis((*o*-hydroxyphenyl)glycine). Isolation of a Possible Intermediate [*J. Am. Chem. Soc.* **1984**, *106*, 3360]. Vincent L. Pecoraro, Joseph A. Bonadies, Carl A. Marrese, and Carl J. Carrano*

Page 3361, line 16 should read: ...electrons, with the concomitant....

Page 3361, Scheme I: compound **5** should have no oxo group.

Electronic Structure and Bonding of $Hg(CH_3)_2$, $Hg(CN)_2$, $Hg(CH_3)(CN)$, $Hg(CCCH_3)_2$, and $Au(PMe_3)(CH_3)$ [*J. Am. Chem. Soc.* **1984**, *106*, 3387]. Roger L. DeKock,* Evert Jan Baerends, Paul M. Boerrigter, and Rudy Hengelmolen

Pages 3387 and 3395: We refer to the $Hg–CH_3$ bonds in $Hg(CH_3)_2$ as 3c–2e bonds. It is clear from the discussion and from Figure 8 that we were emphasizing that two electrons are *bonding* and two are mainly nonbonding. In that sense the bonding is not unlike that in HF_2^-, I_3^-, or XeF_2. In the usual inorganic parlance such a bond is described as 3c–4e. We apologize for any confusion this may have caused.

Comparative Photophysics of Platinium(II) and Platinum(IV) Porphyrins [*J. Am. Chem. Soc.* **1984**, *106*, 4015–4017]. Dongho Kim, Dewey Holten,* Martin Gouterman, and Johann W. Buchler

Page 4015, abstract, line 5: $[a_{2u}(\pi), d_{x^2-y^2}]$ should read $[a_{2u}(\pi), d_{z^2}]$.

Page 4016, column 2, fifth line from the bottom: again $[a_{2u}(\pi), d_{x^2-y^2}]$ should read $[a_{2u}(\pi), d_{z^2}]$.