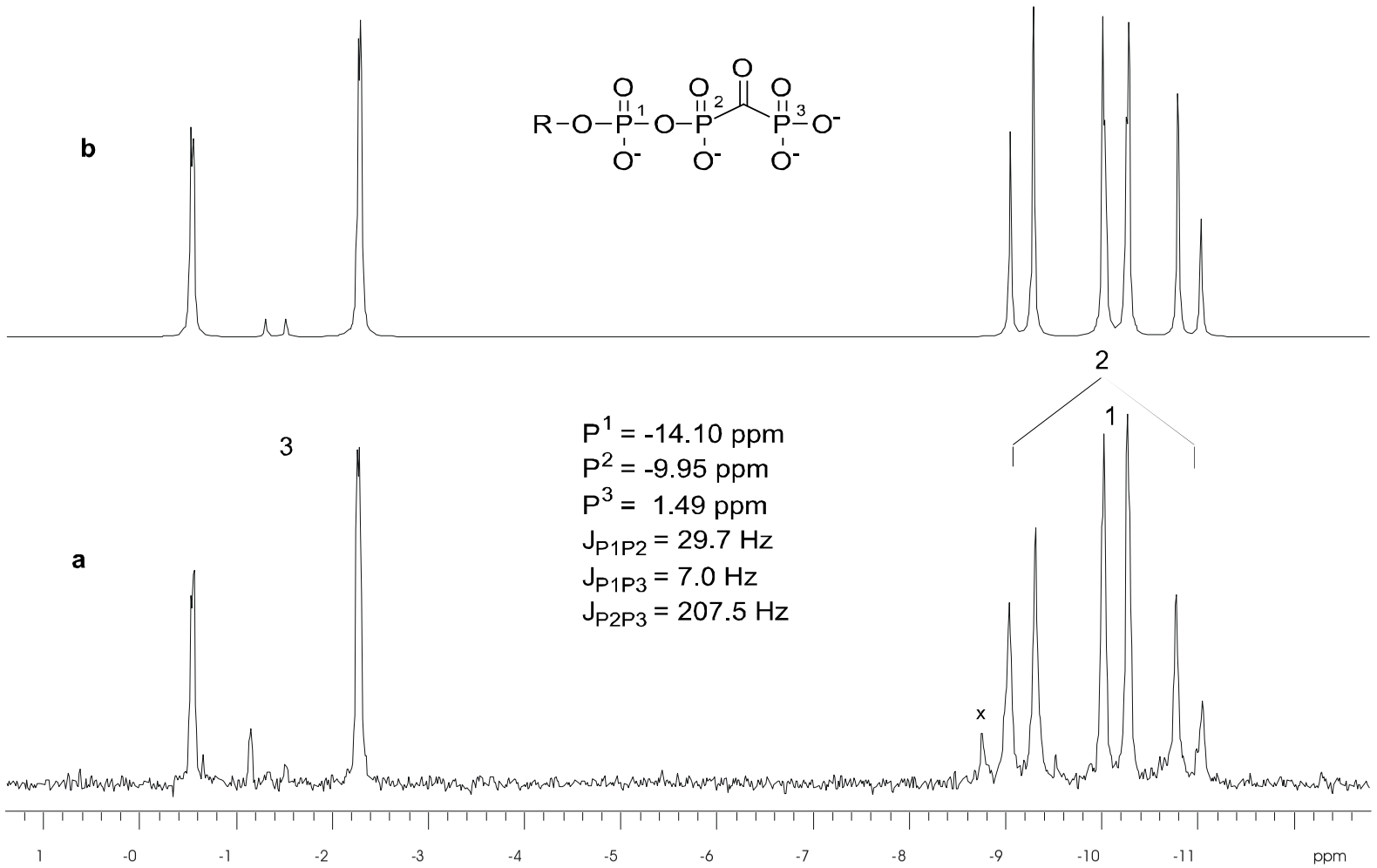
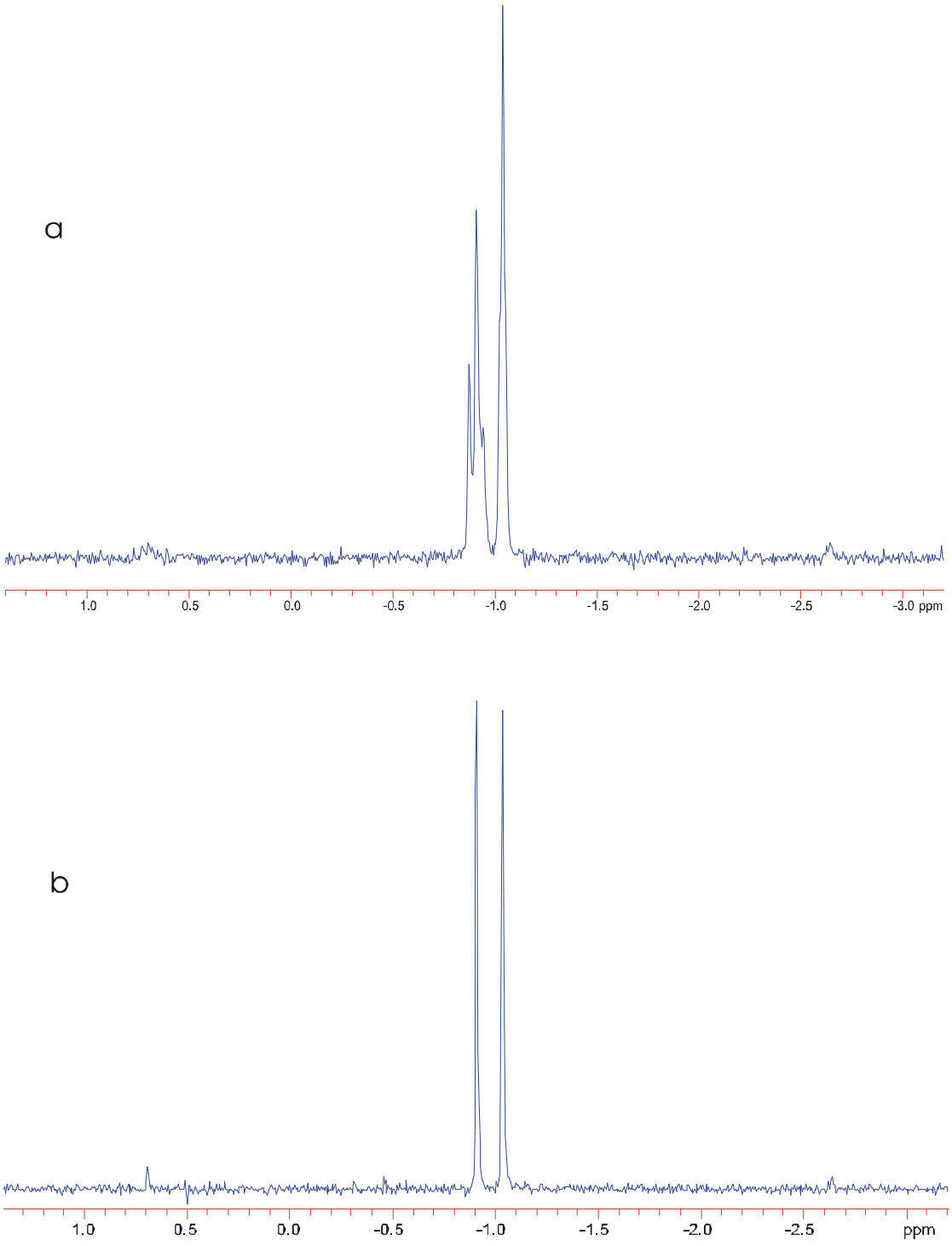
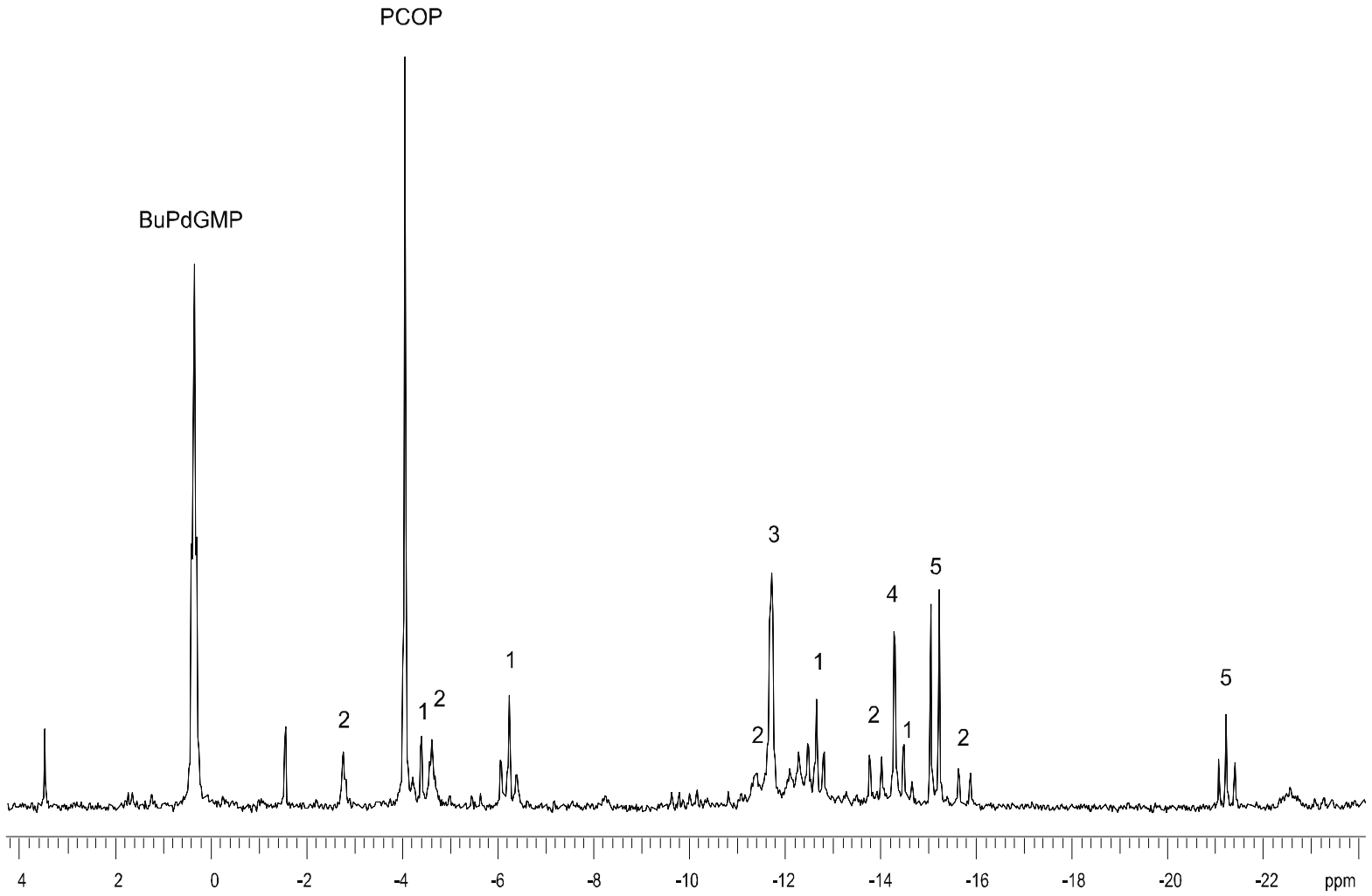


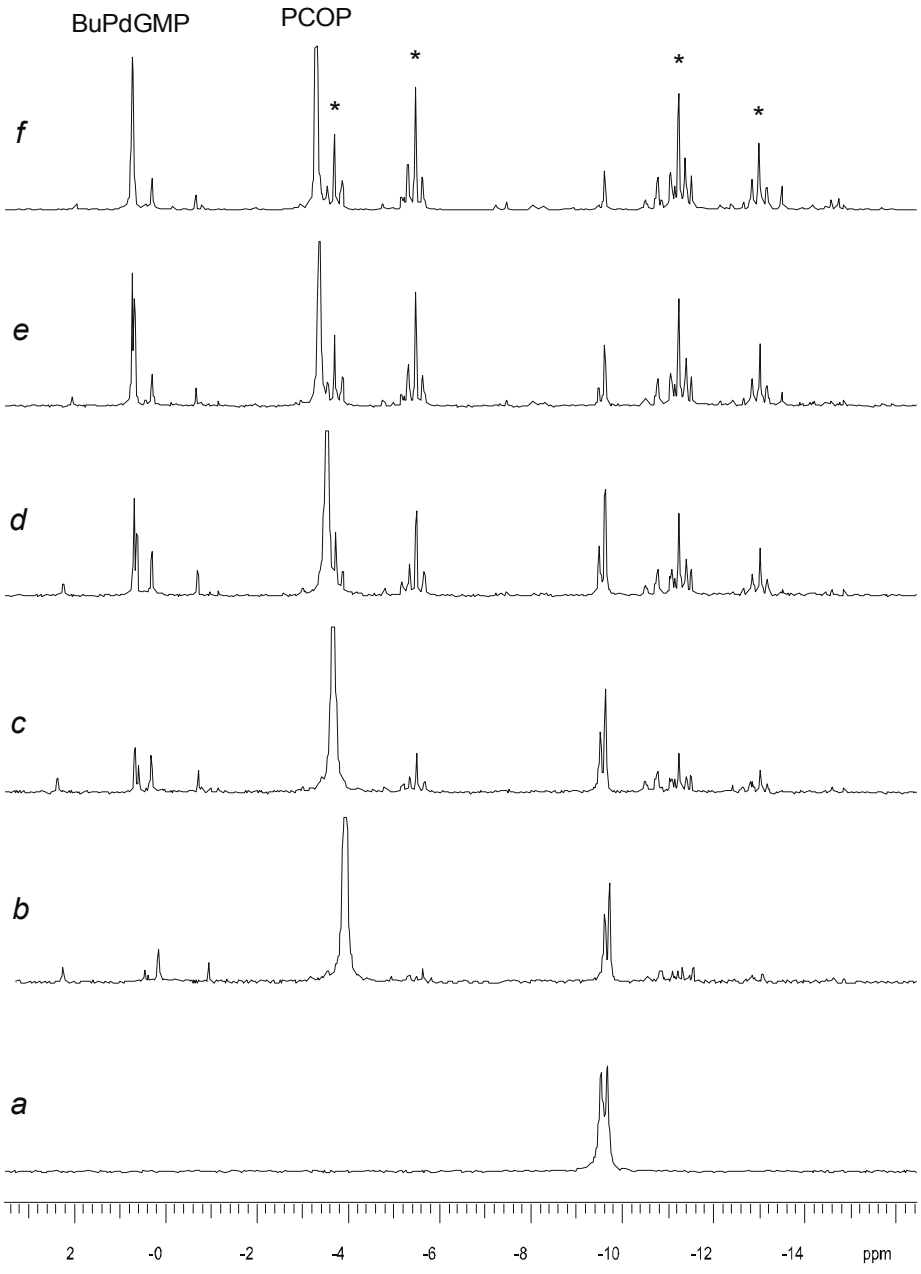
a. 31P NMR proton decoupled spectrum of BuPdGMPCOP in 20 mM EDTA in D2O (x denotes a signal from contamination)
b. Calculated spectrum



^{31}P NMR spectrum of BuPdGMPCOP in D_2O (a), proton decoupled spectrum (b).



^{31}P NMR spectrum of the reaction of the N-methylimidazolide of BuPdGMP with 1 eq. of PCOP after 1 h. (^{1}H decoupler off). Signals of the anhydride of PCOP are denoted by 1, and signals of BuPdGMPPCOP by 2. The signal tentatively assigned as the anhydride of BuPdGMP is denoted by 3. Signals denoted by 4 and 5 are due to two unidentified products, which also are formed when PCOP reacts with an excess of EDC.



^{31}P NMR spectra of the time course of the reaction of the imidazolide of BuPdGMP (trace **a**) with PCOP at time 0 (trace **b**), 25 min (trace **c**), 1 h. (trace **d**), 3 h.(trace **e**), and 6 h. (trace **f**). The signals for the anhydride of PCOP (PCOPOPCOP) are denoted by asterisks.