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Novel Heteróllylic Anions and their Vinylogues: Synthesis, Structure and Reactivity

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Novel Heteroallylic Anions and their Vinylogues: Synthesis, Structure and Reactivity

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Heteroallylic anions, as a result of their different modes of coordination (σ and π) have proven to be versatile ligands for d- and f-block metals^[11]. In context of our work on 1,2-diphosphaallylic anions 1b and the synthesis of the corresponding vinylogous system, the 2,3,4-triphosphapentadienide $2b^{[2]}$, we became interested in the homologous systems and succeeded in the isolation of the 3-arsa-2,4-diphosphapentadienide 2c in crystalline form.

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Furthermore we were able to synthesize the heteroallylic anions 1a-d. For 1a, which shows an interesting reactivity towards electophiles and metal organic reagents, the X-ray structure of the sodium salt could be determined.

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