Allenes are attractive starting points for synthesis, in large part because of the high reactivity engendered by strain. In the past three decades, synthesis and use of allene derivatives have been expanded in preparative organic chemistry. An impressive number of heterocyclic systems has been prepared from allenic starting materials. As a part of our research programme on the applying of heteroatom-containing highly unsaturated compounds for the synthesis of heterocyclic compounds, we prepared and studied the sulfonyl-substituted allenecarboxylates 1 and phosphorylated allenes 1 and 2 in electrophilic cyclization reactions. The phosphoryl and sulfonyl groups attract increasing attention as useful functionalities in organic synthesis. Of particular interest are the applications of these groups as temporary transformers of chemical reactivity of the allenic system in the synthesis of heterocyclic compounds.

Reaction of the bifunctionalized allenes prepared 1-3 with bromine proceeds with neighbouring-group participation and cyclization in all cases. We established that the anchimeric assistance may lend the one or both functional groups depending on the kind of the functions.

**1-3**

\[ Z = C, P-\text{OMe}, P-\text{Ph} \]
\[ R = \text{Me}, \text{CCl}_3, \text{Me}_3\text{SiO} \]
\[ R^1 = R^2 = \text{Me} \]
\[ R^1 + R^2 = -(\text{CH}_2)_5^- \]
\[ R^3 = \text{MeO, EtO, Ph} \]

Synthetic potential of the electrophilic cyclization reaction of the bifunctionalized allenes 1-3 as well as the reaction schemes for preparation of different heterocyclic compounds such as the 3-sulfonyl-furan-2(5\(H\))-ones (\(\gamma\)-lactones) 4, 3-sulfonyl-2,5-dihydro-1,2-oxaphosphol-2-ones 5, 3-sulfonyl-2,5-dihydro-1,2-oxaphosphol-2-ium salts, and 3-phosphoryl-2,5-dihydro-1,2\(\lambda^6\)-oxathioles (\(\gamma\)-sultones) 6 are discussed.