Ring Transformations of 1,2,4-Dithiazoles: Synthesis and Biological Studies of Novel S-Heterocycles, and Their Relevant Phosphono Derivatives

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Reactions of 5-phenyl-3(3*H*)-thioxo-1,2,4-dithiazole (1) with unsaturated and active phosphonium salts as well as with phosphonates, at r. t. and under the effect of basic catalysis, afforded mainly 1,3,5-dithiazines 5, 12, 17a, 17b, 23a or 23b. Substituted 1,3-dithiol 7 and 1,3-thiazoles 13, 19a, 19b, 22a and 22b were isolated as by-products. 1,3,5-Dithiazine products showed pharmacological potency.

Key words: Heterocyclic Disulfides, Vinyl and Allylphosphonium Salts, α -Alkylthiomethylphosphonates, 1,3,5-Dithiazines, 1,3-Thiazoles