

## ON THE PHOTOCHEMISTRY OF XENON FLUORIDES

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The photochemical reactions between xenon and fluorine in gas-gas and solid-liquid systems were systematically investigated. On the basis of these investigations, we determined the optimal reaction conditions for the photochemical syntheses of xenon difluoride and xenon tetrafluoride [1,2]. The photochemical synthesis of xenon hexafluoride does not proceed under the reaction conditions used. Recently, our investigations in these systems were also extended to the photochemical dissociation of xenon hexafluoride. It was found that xenon hexafluoride completely decomposes into xenon tetrafluoride and fluorine. The influence of some reaction conditions (e.g. initial amount of reactant, presence of  $F_2$  or  $NiF_2$ , different energy of light source) upon the rate and the course of the photochemical dissociation of xenon hexafluoride was studied.

1 A. Šmalc, K. Lutar and J. Slivnik, *J. Fluorine Chem.*, **8**, 95 (1976)

2 K. Lutar, A. Šmalc and J. Slivnik, *Vestn. Slov. Kem. Drus.*, **26**, 435 (1979)

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