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LOW-TEMPERATURE FLUORINATION OF RUTHENIUM OXIDE FLUORIDES

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The fluorination of the ruthenium oxides RuO_2 and RuO_4 was investigated by using the fluorinating agents F_2, ClF_3, or KrF_2 in HF solution.

Among the most noticeable results, KrF_2 was found to be powerful enough to react with RuO_4 and to transform it into ruthenium oxide tetrafluoride $RuOF_4$. This oxide fluoride of ruthenium VI so prepared was characterized by elemental analysis, X-ray powder diffraction and infrared absorption spectroscopy.

Results concerning the fluorination of RuO_2 are also presented.