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THERMAL DECOMPOSITION OF PERFLUOROOCETANESULFONYL FLUORIDE

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The decomposition reaction at high temperatures of perfluorooctanesulfonyl fluoride has been investigated using a continuous-tubular-flow reactor. The experiments have been carried out at different temperatures either in the empty reactor or filling the reactor with various kinds of material (copper chips, activated carbon, etc.). In all cases a mixture of homologous fluorocarbons, from C_6 to C_{16} , has been obtained, whose composition depended on the experimental conditions (temperature and contact time). In particular, the best experimental conditions to obtain a reaction mixture containing higher amounts of C_9 - C_{12} fluorocarbons have been searched, in view of an employment of these compounds for preparing emulsions usable as artificial blood.