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(54) **Title**: PROCESS FOR THE PRODUCTION OF MICROELECTROMECHANICAL SYSTEMS

(57) **Abstract**: Elemental fluorine and carbonyl fluoride are suitable etchants for producing microelectromechanical devices ('MEMS'). They are preferably applied as mixtures with nitrogen and argon. If applied in Bosch-type process, C_4F_6 is a highly suitable passivating gas.