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Transport Coefficients and Cross Section Set for Electron Scattering in Mixtures CF_4, Ar and O_2 ZELJKA NIKITOVIĆ, VLADIMIR STOJANOVIĆ, ZORAN PETROVIĆ, Institute of Physics, P.O.B. 68, 11080 Zemun, Belgrade, Serbia, ZVZ TEAM — We present transport coefficients for electrons in mixtures of CF4 with Ar and O2 for ratios of the electric field to the gas number density E/N from 1 Td to 1000 Td (1Td=10-21 Vm2). We then add a certain percentage of radicals produced by dissociation of CF4. Our analysis of non-conservative collisions revealed a range of E/N where electron attachment introduced by radicals significantly changes electron kinetics obtained for mixtures without dissociation of CF4 gas. Results are obtained by using a simple, two term solutions for Boltzmann's equation but are verified by Monte Carlo simulations.

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