

THE STUDY OF THE MULTIPHOTONIC EXCITES FOR THE DIATOMIC MOLECULAR DISSOCIATION AND
THE QUANTUM FLUCTUATIONS THEORY

SILVESTRU POPESCU and STEFAN CARCU, *Research Institute for Electrical Engineering - ICPE Bistrita
Subsidiary Str. Parcului, No. 7, Bistrita Ro - 4400 Romania.*

A method is presented for dissociation of diatomic molecules, found in a precisely defined atmosphere, through successive absorption of a quantum energy generated by laser effect, at a certain frequency and a certain density of energy, until the energy in this way accumulated became equal with the dissociation energy. The method, based on some of the results previously published^a, has a better output than classical methods (in which the molecules are bombarded with particles having appropriate energy), allowing practically entire dissociation of all molecules which from that atmosphere. Applying my theoretical results, I have obtained and elaborated a new practical method of ozone production^b, whose efficiency exceeds those of classical methods, using Corona discharge or UV radiation. The extract quantum fluctuation theory, proposed by H. Collen in 1935 and T. Welton in 1951, was used in the present work to determine the probability of the process of molecular dissociation using successive multiphotonic excitation.

^aS. Popescu, %ICP Information Newsletter, January, p 207 -208, 1997.

^bS. Popescu, "A method of ozone generation", Patents, Romania, Certificate no. 103488.