

DISSOCIATIVE ELECTRON ATTACHMENT TO CO₂ IN ELECTRIC AND MAGNETIC FIELDS

MIRJANA M. VOJNOVIĆ¹ , MIROSLAV M. RISTIĆ² ,
VIOLETA V. STANKOVIĆ-MALIŠ¹  and GORAN B. POPARIĆ¹ 

¹*University of Belgrade, Faculty of Physics, Belgrade, Serbia*
E-mail mvojnovic@ff.bg.ac.rs

²*University of Belgrade, Faculty of Physical Chemistry, Belgrade, Serbia*

Abstract. Rate coefficients for the production of O⁻ from CO₂ by dissociative electron attachment in the presence of constant electric and magnetic fields are presented. Monte Carlo simulation was used in order to obtain electron energy distribution functions for different values of density normalized electric and magnetic fields and angles between the fields. Results for two choices of E/N (500 Td and 700 Td) and three values of B/N (1000 Hx, 2000 Hx and 3000 Hx) are grouped and analyzed.

Acknowledgements

This work is partially supported by the Ministry of Education, Science and Technological Development of the Republic of Serbia by the Project No. 451-03-66/2024-03/ 200162.