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Electrodynamics with Toroid Polarization

V.M. DUBOVIK, B. SAHA
Bogoliubov Laboratory of Theoretical Physics
Joint Institute for Nuclear Research
141980, Dubna, Moscow reg., RUSSIA
e-mail: dubovik@thsun1.jinr.dubna.su
e-mail: saha@thsun1.jinr.dubna.su

Abstract: A modified system of equations of electrodynamics of continuous media has been obtained. Beside the Lagrangian system an alternative gauge-like formalism has been developed to introduce the toroid moment contributions in the obtained equations. The two potential formalism that was worked out by us earlier has been developed further where along with the two vector potentials we introduce two scalar potentials thus taking into account all four basic equations of electromagnetism.

Key Words: Toroid moments, two-potential formalism