

## A REVIEW OF AERONET SUN-PHOTOMETER MEASUREMENTS OF THE AEROSOL PROPERTIES AT SITE EFORIE NORD ROMANIA

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**Abstract.** *Due to their effects, the aerosols have a profound impact on air quality and affect the earth's energy budget. As a result, the interest in studying aerosol properties increased in recent decades. It is known that the scattering and absorbing radiation processes act directly on the radiative budget of atmosphere-earth system. However, estimating their magnitude requires increased effort to improve measurements and datasets from regional to global scales. This study focuses on knowledge concerning the photometry technique to determine the physical properties of aerosols and to assess the aerosol characteristics of tropospheric aerosols using solar photometry data from the Romanian Eforie Nord AERONET station. The aerosol optical properties are assessed by focusing on the sun-photometer CIMEL CE-318 measurements for two time periods 2010-2012 and 2015-2017. The results emphasize that the area on the Black Sea coast is characterized by a good air quality, and that the meteorological conditions had influenced the measurements much more during the second period.*

**Keywords:** solar photometry, sun-photometer, AERONET, aerosol optical properties

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