

FLUORESCENCE EFFICIENCY OF ELECTRONS IN THE ATMOSPHERE ABOVE THE OCEAN

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In order to observe the ultra-high energy cosmic rays above 10^{20} eV, a satellite-based telescope viewing above 10^5 km²sr is under preparation. In this experiment atmospheric fluorescent light from extensive air showers are observed. Since the atmosphere is not dry on the ocean where most extensive air showers may be generated, the detailed study of fluorescence efficiency in wet air is required. The pressure and vapor pressure dependence of fluorescence efficiency in wet air have been measured by means of a ⁹⁰Sr β source and the results will be presented.