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ISSUES OF MUTUAL CALIBRATION OF SATELLITE MEANS FOR DETERMINING THE VOLUME
OF BURNED ASSOCIATED GAS IN FLARES

Abstract

The possibility of mutual calibration of satellite means for determining the volume of burned associated gas in flares is analyzed. The existing satellite methods for estimating the total amount of hydrocarbon associated gas burned in flares, implemented on the basis of MODIS and VIIRS data, are considered. Methods of intersensor calibration of satellite meters have been developed, implemented by making an additive calibration correction for the measured temperature of objects outside the torch in the first case, when MODIS data are calibrated according to VIIRS readings and for the radiance of the torch, if VIIRS readings are calibrated according to MODIS readings. The problem of optimal choice of the gas flare temperature at which the emission of an aerosol of the type of elemental carbon (BC) can be reduced in comparison with the maximum generation level is considered and solved.