

This paper presents an assessment of an influence of turbulence intensity in the close vicinity of a linear source of pollution on the consequent process of air pollutant dispersion. Turbulent flow structure in the vicinity of vehicles in motion significantly influences the dispersion of air pollutants generated by road traffic into the environment of a traffic path. The detailed investigation of a cross-section vortex in the street canyon is done by the computational parametrical study. Vehicles' motion along the traffic path has been considered as an input parameter for the consequent quantification of the kinetic energy of turbulence generation above the road. The influence of generated kinetic energy of turbulence by a linear road on the concentration of PM10 at receptor points located in the studied area is obtained by using the mathematical modelling method CFD.

