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On possibility of experimental determination of integral characteristics of molecular component of mixing by means of X-ray technique

Yu.A. Kucherenko, S.I. Balabin, R.I. Ardashova, O.E. Kozelkov, A.V. Dulov & I.A. Romanov

Academician E. I. Zababakhin Russian Federal Nuclear Center
All-Russian Research Institute of Technical Physics
kucherenko@five.ch70.chel.su

In the present work there was made the first attempt of experimental determination of integral quantity of substances, which were mixed molecularly, over the time in experiments with the Rayleigh-Taylor turbulence. There were used mutual soluble liquids in the experiments. There was determined the averaged density of matter in the zone of the Rayleigh-Taylor turbulence at the separation stage by means of X-ray technique. The density distribution of matter conditioned by the molecular component was measured at the moment of finishing of the total separation of heterogeneous structures.