

Poster 2

Kucherenko et al.

## **On possibility of experimental determination of molecular component of non-stationary turbulent mixing**

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It has been studied a possibility of using of chemical indicator phenolphthalein for determination of molecular component of mixing. Phenolphthalein is inserted into one of two different density miscible liquids of the same refraction indexes. Using of the mentioned indicator is based on its property to vary its colour in presence of alkali. In contrast to an analogous method proposed in the work by P. F. Linden, J. M. Redondo, and D.L. Youngs (1994) pH values of the liquids are chosen in such a way that coloring power of a certain volume of molecular mixture would depend on concentration of phenolphthalein molecules only. The total volume of the mixing area occupied by molecular mixture, at validity of certain conditions, can be determined by measuring of intensity of transmitted light through the area.