**Figure captions**

***Figure 1.*** *Flow rig setup for flow rate measurements and flow meter calibration.*

***Figure 2.*** *RTD curve recorded by detectors placed at radiotracers inlet and at 50, 70 and 100 diameters of pipe length for 99mTc volume of 0.7 ml having activity of 1.58* *mCi.*

***Figure 3.*** *MRT (τ) dependency on time showing cumulative focusing of the final MRT value throughout the whole RTD-curve range. Parameter A2 of the Boltzmann fit shows our MRT value when time goes to ∞. Iteration step equals to measurement window 0.1s.*

***Figure 4.*** *RTD software solutions to the experimental data for axial dispersed plug flow for 99mTc volume of 0.3 ml having activity of 0.68 mCi.*