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# Fate of the low-concentration nitrobenzene in the cold river water

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**Abstract** How did the pesticide or pollutant behave in the cold river water in the Northeast of China? This study presents a laboratory experiment on the distribution of the low-concentration nitrobenzene in the cold water. Water in a stainless-steel container with the height of 1 m was kept still without any disturbances in two groups of the solutions, while the container wall was regularly tapped in the third group. The experimental results show that, after the water samples were kept motionless for more than 120 h, the nitrobenzene kept on uniformly distributed in the cold water with the temperature close to 0˚C and the initial content were 19.8 $\mu$g/L, 240 $\mu$g/L or 2446 $\mu$g/L. Furthermore, no deposition occurred even though minor disturbances came. In both conditions above mentioned, the differences of the nitrobenzene contents in different depths were not more than 10%. The results imply the fate of the pesticide or pollutant containing nitrobenzene in the river of the cold area: most of them will flow away in the river water without influence on the local environment as the contaminant content is enough low.