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TITLE: An interlaboratory study of dissolved oxygen in water

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ABSTRACT:

Abstract Dissolved oxygen concentrations in water samples free from chemical reductants may be stabilised by the addition of mercuric chloride (40 g m ?3 ) and storage in gas-tight bottles. This preservation technique has been used in an interlaboratory study of dissolved oxygen analysis in New Zealand laboratories. At reference concentrations of 1.20 and 5.86 g m ?3 , there was a significant positive bias in results reported for both the Winkler method (0.24 and 0.22 g m ?3 respectively) and the membrane electrode method (0.59 and 0.62 g m ?3 respectively). Inadequate precautions to avoid sample aeration during handling and analysis probably caused the bias.

SOURCE: Water research

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