

论著

氯化消毒对自来水致突变性影响研究

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摘要 本文通过鼠伤寒沙门氏菌致突变试验(Ames Test),分析常用氯化消毒方法对饮用水遗传毒性的影响。水样采自某单位自备水源。试验结果表明,未氯化自来水有机提取物致突变反应阴性,加氯自来水样诱发沙门氏菌致突变率升高;在一定范围内,随氯浓度增加,不会显著增加水样的致突变性。同时检测加氯后中和水样的致突变性,加中和剂处理后水样致突变性降低。提示加氯消毒水样致突变性可以通过水处理工艺加以改进,为饮水氯化消毒的致突变研究及其防治提供毒理学依据。

关键词 [致突变性](#) [Ames 试验](#) [氯化](#) [饮用水](#)

THE GENETIC TOXICOLOGIC EFFECT OF CHLORINATION ON DRINKING WATER

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Abstract By means of Ames test , the genetic toxicology of chlorination on drinking water is evaluated. The result showed that the mutagenicity of water increased in all samples treated with chlorine , while mutagenic potential was negative in source water samples not treated with chlorine. By adding Na₂S₂O₃ to chlorinated water samples , there had less mutagenic activity. The antimutagenic potentials of Na₂S₂O₃ in the chlorine water was dose dependent , the higher the mutagenicity of chlorinated water , the better the beneficial effect of Na₂S₂O₃. These indicated that the mutagenicity in chlorinated water can be reduced by water treatment process.

Keywords [mutagenicity](#) [Ames test](#) [chlorine](#) [drinking water](#)

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