

论著

应用蚕豆根尖微核试验技术对二氧化氯消毒剂诱变性的研究

蒋辉权, 倪晓平, 寇宇

杭州市疾病预防控制中心, 浙江 杭州 310006

收稿日期 2000-8-28 修回日期 2000-11-16 网络版发布日期:

摘要 目的与方法:采用蚕豆根尖微核试验技术对两种市售二氧化氯(ClO₂)的诱变性进行研究。结果:在ClO₂的稀释度为1:100时,杭州产ClO₂(A样)与余杭产ClO₂(B样)蚕豆根尖细胞微核率(MNF)分别为(17.91±4.80)和(17.57±3.15)‰,与作为阴性对照的自来水相比较,均有显著的统计学差异(P<0.01),并呈现较强的剂量2反关系。结论:消毒剂ClO₂能诱发蚕豆根尖细胞微核率的增加,具有一定的诱变性。

关键词 [蚕豆](#) [微核试验](#) [二氧化氯](#) [诱变性](#)

THE MUTAGENICITY STUDY OF CHLORINE DIOXIDE USING MICRONUCLEUS TEST IN VICIA FABA ROOT TIP CELLS

JNG Hui-quan, NI Xiao-ping, KOU Yu

Center of Disease Prevention and Control in Hangzhou, Hangzhou 310006, China

Abstract Purpose and Methods : The mutagenicity of two batches of chlorine dioxide (ClO₂) were studied using-micronucleus test in Vicia faba root tip cells. **Results :** The frequencies of micronucleus of two kinds of ClO₂ were (17.91±4.80)‰ and (17.53.12)‰ respectively when the diluent multiple of ClO₂ was at 1:100. Comparing with the tap water group, the differences ($\chi^2_A = 30.57, \chi^2_B = 29.60 P < 0.01$) was statistically significant and the dose2effect relationship was clear. **Conclusion :** Chlorine dioxide has mutagenicity. We should pay attention to safety of its application in food and water.

Keywords [Pollution of Sushui River](#) [Wells along the river](#), [Genotoxicity](#), [Micronucleis test](#).

DOI

通讯作者

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [\[PDF全文\]\(138k\)](#)
- ▶ [\[HTML全文\]\(0k\)](#)

▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [Email Alert](#)

相关信息

- ▶ [本刊中 包含“蚕豆”的 相关文章](#)
- ▶ 本文作者相关文章

- [蒋辉权](#)
- [倪晓平](#)
- [寇宇](#)