

## 石油化学工人的细胞遗传学研究. 姐妹染色单体交换 (SCE) 和细胞生长周期的研究

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**摘要** 本文研究了180名某大型石油化工企业工人和180名对照组的SCE频率及其细胞INIINI周期比率, 结果表明, 石化工人的SCE频率和细胞各周期比率与对照组无显著差异, 即这两个地区由环境因子引起的这种细胞遗传效应差异不显著, 表明它们有较相似的环境背景。但是, 在石化企业中, 两个污水处理车间工人的SCE频率明显地高于对照组和4个生产车间的工人, 其细胞生长速率也明显地迟缓, 揭示石化物质对人体有一定的细胞遗传效应, 而且这种效应, 与人体所接触的石化物质浓度有关。

**关键词** [石化工人](#); [人类染色体](#); [姐妹染色单体交换](#); [细胞生长周期](#)

分类号

## Cytogenetic Studies of Petrochemical WorkersII. Studies on Sister Chromatid Exchange(SCE) and Cell Cycles

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### Abstract

The SCE frequency and cell cycle kinetics of 180 workers from a petrochemical corpora-Lion and 180 peoples from a control group were analysed. The results revealed that there were no significant differences in SCE frequency and in cell cycle kinetics between the two groups. However, the SCE frequencies of those workers in the two sewage treatment workshops ( $8.41 \pm 2.48$ ,  $8.42 \pm 1.51$ ) were significantly higher than both the control group ( $7.20 \pm 1.50$ ) and the workers from the four production workshops ( $6.77 \pm 1.21$ ). The duration of cell cycle in sewage treatment workers was also longer compared to that of workers from other workshops as well as the control group. It was shown that petrochemical substances may have certain cytogenetic effects on workers in a concentrate on dependent manner.

**Key words** [words: Petrochemical worker](#) [Human chromosome](#) [Sister chromatid exchange](#) [Cell cycle](#)

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