

Testing And Evaluating on the Illumination And Hood Properties of Chemical Laboratories in Institute of Technologies on Kaohsiung And Ping-Tong Areas

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Abstract

The purpose of this research was to test and evaluate the physically environmental factors of the chemical laboratories in institute of Tecologies on Kaohsiung and Ping-Tong areas. There were 7 schools and 51 hoods included in this study. Illuminating meters were used to test the entire illumination status and the local illuminating status. Also, air velocity meters were used to measure "controlled air velocity". The results showed that 26.2% of laboratories failed to meet the 300 lux illumination standard set by "Labor Safety and Hygiene Facilities Regulations", 52.9% of hoods failed to meet 300 lux standard, and 15.7% of hoods did not meet 0.4m/s standard for organic solvent, 21.6% of hood did not meet 0.5m/sec standard for lead-containing materials and gaseous specific chemicals, and 96.1% did not meet 1.0m/s for particulate specific chemicals when measure the "air velocity" of hood. This result indicated that the urgent task for college above level institution is to improve the illumination status and the exit air velocity of hoods in order to meet "Labor Safety and Hygiene Regulations", and to ensure the safety and health of the faculty staffs and students.

Keywords : Laboratory , Illumination , Hood

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