

PP 027

Laboratory culture method and chronic exposure
to cadmium and pentachlorophenol-effect on
development in the freshwater invertebrate
Chironomus riparius (Diptera : Chironomidae)

Kyung-Moo Ryu and Sung-Kyu Lee

Environmental Toxicology Team, Korea Research Institute of Chemical Technology

The development of test methods which use formulated sediments is of importance for sediment ecotoxicology, because it provides the potential for improved control and hence reproducibility. The aim of this study was the effect of cadmium and pentachlorophenol on development in *Chironomus riparius* Meigen (Diptera, Chironomidae). It was determined over first larval instar in chronic formulated sediments exposure assays in the laboratory as well as reference toxicant testing using copper. A number of endpoint were examined in order to identify any chemical-related effects including emergence rate. The result showed that measured endpoints are the total number of adults and the emergence rate. More larval survival and growth were measured after a ten-day period as additional acute data. The exposure method used in this study is spiking of formulated sediments with the test substance.