

## 7e06

Difference in the sensitivity to chemicals and hemoglobin content between male and female of *Daphnia magna*

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*Daphnia magna* usually produce female offspring by parthenogenesis. It is, however, known that male daphnids are induced by exposure to a juvenile hormone, methyl farnesoate, during late ovarian development. In this study, we investigated the difference in sensitivity to chemical compounds, potassium dichromate and pentachlorophenol, between females and males which were induced by methyl farnesoate exposure, referring to OECD Test Guideline 202. Furthermore, the difference in the hemoglobin content between the female and male offsprings was analyzed. Acute toxicity tests (immobility test) of the chemicals showed that the median effect concentrations (EC<sub>50</sub>) of potassium dichromate and pentachlorophenol were significantly different between female and male neonates. Moreover, the hemoglobin contents of female and male neonates were not different until 24 hours after birth, however, male hemoglobin content was significantly higher than female counterpart at 48 hours after birth. These results suggest that the male neonate have higher tolerance to potassium dichromate and pentachlorophenol than females at least 24 h after birth, and these differences between male and female neonates are related to the ability of hemoglobin production because the age of daphnids at the end of the 24-hour exposure in acute immobility test is about 48 hours old.