

Notes to aquatic toxicity tables

- 1: solvent 2% ethanol, caused no significant effects; light regime: 30 min. dark
- 2: solvent: see 1; light regime 30 min. light from source with UV-A+B, total irradiation 400-800 mW/cm² for 30 min.
- 3: complex medium with yeast extract, peptone and bactopectamin; bacteria were grown in the dark at room temperature
- 4: complex medium with yeast extract, peptone and bactopectamin; bacteria were grown at room temperature in simulated solar radiation (SSR), visible light : UV-A : UV-B = 100 : 10 : 1 with an intensity of 40 $\mu\text{mol}/\text{m}^2/\text{s}$
- 5: minimal medium (complex medium without C-sources); bacteria were grown in the dark at room temperature
- 6: minimal medium (complex medium without C-sources); bacteria were grown in SSR (see note 4) at room temperature
- 7: unclear dose response curve, 14% effect at 450 $\mu\text{g}/\text{l}$
- 8: solvent is methanol (<0.4 mg/l); lowest oxygen conc. In test 4.9 mg/l
- 9: growth measured as wet weight
- 10: SSR; light regime: two cool white fluorescent one 350-nm and one 300-nm photoreactor lamps producing UV-A + UV-B; ratio visible: UV-A: UV-B=100:10:1 based on the number of photons, total intensity 40 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{sec}^{-1}$, this is comparable with natural sunlight (spectrum+intensity)
- 11: Actual concentration 70% of nominal at 0 h and 50% after the renewal period of 8 h; the results are presented as the calculated average between t=0 and t=8 h after renewal according to a first order kinetics loss model; first renewal after 12 h of incubation
- 12: light regime: 12 h incubation in the dark, then constant light with "white fluorescent bulbs" used with a filter to eliminate UV-A+B (<390 nm); UV-A produced by blacklights, the intensity of the UV-A in the test was 765 $\mu\text{W}/\text{cm}^2$; UV-B radiation was filtered from the blacklight spectrum.
- 13: no UV-radiation; visible light by "white fluorescent lamps"; light regime: 16 h light and 8 h dark
- 14: UV-radiation at 31 $\mu\text{W}/\text{cm}^2$; ratio UV-A:UV-B=8:1; visible light by "white fluorescent lamps"; light regime: 16 h light and 8 h dark
- 15: UV-radiation at 60 $\mu\text{W}/\text{cm}^2$; ratio UV-A:UV-B=8:1; visible light by "white fluorescent lamps"; light regime: 16 h light and 8 h dark
- 16: UV-radiation at 117 $\mu\text{W}/\text{cm}^2$; ratio UV-A:UV-B=8:1; visible light by "white fluorescent lamps"; light regime: 16 h light and 8 h dark
- 17: reproduction measured as total number of neonates after 6 broods
- 18: 23% effect at 1.9 $\mu\text{g}/\text{l}$
- 19: reproduction as number of broods per animal and number of live young per brood per animal and as total number of young
- 20: exposure time is total life-time; light regime: 16 h light and 8 h dark by "cool white fluorescent bulbs" 1100 lx
- 21: growth measured as length of the first brood animals
- 22: actual conc. 27-76%, average 48%; highest conc.(180 $\mu\text{g}/\text{l}$) is tested in separate test
- 23: actual conc. 36-109% of initial conc., average 72%
- 24: test performed in the dark
- 25: light regime 12 h light and 12 h dark

- 26: constant illumination: UV-A+B and visible light, spectrum 91% equal to natural sunlight; UV-A and UV-B intensities are 108 and 6.7 $\mu\text{W}/\text{cm}^2$; total intensity approximately equal to 0.5 and 1 m depth in an eutrophic lake; 24 h pre-exposure to anthracene in dark; temperature 20 $^{\circ}\text{C}$ and oxygen concentration 6.9 mg/l
- 27: as 26, except oxygen concentration is 8.1 mg/L
- 28: as 26, except temp. is 30 $^{\circ}\text{C}$
- 29: as 28, except oxygen concentration is 8.1 mg/L
- 30: 48 h pre-exposure to anthracene in the dark, followed by 96 h anthracene + UV exposure, light regime: 24 h light during 96 h exposure; simulated sunlight produced by white and ultraviolet fluorescent bulbs; UV-B intensity is 14.8 $\mu\text{W}/\text{cm}^2$; UV-A (365 \pm 36nm):UV-B (310 \pm 34nm)=1.42
- 31: as 30 except UV-B intensity is 170 $\mu\text{W}/\text{cm}^2$
- 32: as 30 except UV-B intensity is 70 $\mu\text{W}/\text{cm}^2$
- 33: 24 h pre-exposure to anthracene in the dark, followed by 24 h anthracene + UV exposure, light regime: 24 h light during 24 h exposure; simulated sunlight: UV-B intensity is 150 $\mu\text{W}/\text{cm}^2$
- 34: oxygen concentration minimal 2 mg/l; photoperiod 14 h light 10 h dark with approximately 1000 lux
- 35: light regime: 16 h light and 8 h dark; oxygen conc. Ca. 3.9 mg/l
- 36: light regime: 12 h light and 12 h dark with mixed fluorescent and natural light
- 37: light regime: 16 h light and 8 h dark, illumination with "white light"
- 38: light regime: 16 h light and 8 h dark, illumination with "gold light" with an energy output of 7.5E-5 W/m² at 670, 1.4E-3 W/m² at 550 nm and 1.0E-6 W/m² at 380 nm
- 39: light regime: 16 h light and 8 h dark, at 1086 lux; results expressed as 57% of the water soluble fraction, solubility in test water is 34000 $\mu\text{g}/\text{l}$
- 40: exposure 1 h in the dark followed by 1 h irradiation with 13 W/m² of UV-light (320-400 nm; maximum 350 nm)
- 41: exposure ca. 12 h in the dark followed by 1 h irradiation with 13 W/m² of UV-light (320-400 nm; maximum 350 nm); mortality recorded immediately after irradiation period
- 42: exposure ca. 0.5 h in the dark followed by 0.5 h irradiation with 7.5 W/m² of UV-light (320-400 nm; maximum 350 nm), mortality recorded the next day
- 43: 4 m old sexually mature fish were exposed for two weeks to 6 and 12 $\mu\text{g}/\text{L}$ with a 16;8 light:dark photoperiod. Then, one male and two females per aquarium were exposed to the same concentration and photoperiod for a spawning period of 6 w and to 12 and 20 $\mu\text{g}/\text{L}$ for an additional period of 3 w. Eggs were collected and percent hatching and survival were recorded in water without anthracene during 96 h.
- 44: LT50 study, only 1 conc. Tested; actual conc. is 67% of initial conc.; light regime: 24 h light; 24 h pre-exposure with chrysene without UV radiation; light intensity during test period: UV-A;120 $\mu\text{W}/\text{cm}^2$, UV-B= 25 $\mu\text{W}/\text{cm}^2$; UV-A: UV-B ratio= 4.12: 1
- 45: actual conc. 41-81% of initial conc. average 58%
- 46: light regime: 16 h light and 8 h dark, illumination with "black light" with an energy output of 3.2E-7 W/m² at 670, 1.9E-5 W/m² at 550 nm and 5.7E-3 W/m² at 380 nm
- 47: light regime: 16 h light and 8 h dark, illumination with "cool white fluorescent light" with an energy output of 7.0E-5 W/m² at 670, 2.3E-3 W/m² at 550 nm and 1.3E-4 W/m² at 380 nm

- 48: LT50 study, at the end of the test period 20% effect was found; simulated UV-A at 95 $\mu\text{W}/\text{m}^2$ and UV-B at 20 $\mu\text{W}/\text{m}^2$; 24 h preincubation with toxicant without light; only 1 concentration tested
- 49: light regime: 13 h light and 11 h dark
- 50: LC50 is expressed on basis of the initial nominal concentration
- 51: constant artificial illumination
- 52: strong decrease in test concentration: 2% recovered after 96 h; initial concentration is 85% of nominal concentration
- 53: constant illumination; EC50 is the geom. mean between the nominal and the 24 h measured conc.
- 54: actual conc. Average over 4 days 65% of initial concentration
- 55: tidal schedule with different 0% exposure to air; animals from field population acclimated for 1 month
- 56: temperature 15 $^{\circ}\text{C}$; actual concentration 54% of initial concentration, in static renewal test somewhat lower
- 57: temperature 25 $^{\circ}\text{C}$; actual concentration 54% of initial concentration, in static renewal test somewhat lower
- 58: light regime: 14 h light and 10 h dark; LC50 estimated with Spearman & Karber
- 59: LC50s at 21 $^{\circ}\text{C}$ (winter), 25 $^{\circ}\text{C}$ (monsoon) and 30 $^{\circ}\text{C}$ (summer) for this species, resp.
- 60: strong decrease in test concentration: 32% recovered after 96 h; initial concentration is 103% of nominal concentration
- 61: exposure 2 h in the dark followed by 1 h irradiation with 13 W/m^2 of UV-light (320-400 nm; maximum 350 nm); mortality recorded immediately after irradiation period
- 62: light regime: 16 h light and 8 h dark with an intensity of 75-80 $\mu\text{E m}^{-2}\text{s}^{-1}$ produced by "cool white fluorescent light
- 63: bacteria were grown in simulated solar radiation (SSR); visible light : UV-A : UV-B = 100 : 10 : 1; total fluence rate 40 $\mu\text{mol}/\text{m}^2/\text{s}$
- 64: 48 h exposure in the dark followed by 2 h exposure to UV-A (365 nm, 247 $\mu\text{W}/\text{cm}^2$)
- 65: exposure under white light (2500 lux, 74-92 $\mu\text{W}/\text{cm}^2$), 16 h light/8 h dark
- 66: 48 h exposure in white light (see 65) followed by 2 h exposure to UV-A (365 nm, 247 $\mu\text{W}/\text{cm}^2$)
- 67: exposure under ambient laboratory lighting
- 68: exposure with UV-A (320-400 nm), intensity 70 $\mu\text{W}/\text{cm}^2$
- 69: laboratory fluorescent light with 581 ± 140 lux and a photoperiod of 12:12 h light dark; test performed at 20-25 $^{\circ}\text{C}$ except the test with rainbow trout which was at 16-18 $^{\circ}\text{C}$
- 70: laboratory ultraviolet light with 359-587 $\mu\text{W}/\text{cm}^2$ UV-A and 63-80 $\mu\text{W}/\text{cm}^2$ UV-B and a photoperiod of 12:12 h light dark; test performed at 20-25 $^{\circ}\text{C}$ except the test with rainbow trout which was at 16-18 $^{\circ}\text{C}$
- 71: laboratory ultraviolet light with 783-850 $\mu\text{W}/\text{cm}^2$ UV-A and 104 $\mu\text{W}/\text{cm}^2$ UV-B and a photoperiod of 12:12 h light dark; test performed at 20-25 $^{\circ}\text{C}$
- 72: Outdoor natural UV irradiation: midday intensities UV-A 1273-2660 $\mu\text{W}/\text{cm}^2$ and UV-B 76-182 $\mu\text{W}/\text{cm}^2$ (only measured for mysid, grass shrimp and inland silverside); tests performed in period with generally sunny weather between June and September
- 73: 12 h day/night photoperiod at 100 $\mu\text{E}/\text{m}^2/\text{s}$
- 74: exposure without UV light

- 75: after exposure in water only, transfer to sediment with overlying water to measure reburial EC50 after 1 h
- 76: after 96 h exposure and 1 h reburial, animals were transferred to uncontaminated seawater and irradiated for 1 h with UV (UV-A 167 $\mu\text{W}/\text{cm}^2$ and UV-B 58 $\mu\text{W}/\text{cm}^2$)
- 77: reburial in sediment was measured for 1 h after the 1 h UV irradiation
- 78: after 48 h exposure to fluoranthene 48 h exposure to UV light (UV-A: 7.82-8.29 $\mu\text{W}/\text{cm}^2$ and UV-B: 153 $\mu\text{W}/\text{cm}^2$)
- 79: after 48 h exposure to fluoranthene 48 h exposure to UV light (UV-A: 4.17-4.75 $\mu\text{W}/\text{cm}^2$ and UV-B: 72 $\mu\text{W}/\text{cm}^2$)
- 80: photoperiod was 16 h (artificial) light and 8 h darkness
- 81: after 24 h PAH exposure 2 h UV irradiation (295-365 nm; peak 340 nm; intensity $370\pm 20 \mu\text{W}/\text{cm}^2$) and a recovery period of 2 h; temperature 20 $^{\circ}\text{C}$; during UV-radiation and recovery 23 $^{\circ}\text{C}$
- 82: mercury light source 330-800 nm, including some UV-A
- 83: test with UV filter which blocked most radiation ($75\pm 14\%$) below 400 nm
- 84: exposure in sunlight
- 85: exposure ca. 0.5 h in the dark followed by 0.5 h irradiation with sunlight, mortality recorded the next day
- 86: exposure 1 h in the dark, followed by 30 min. sunlight, back to dark and mortality recording after 24 h
- 87: visible light : UV-A : UV-B=100:10:1; UV-A intensity 62-68 $\mu\text{W}/\text{cm}^2$ and UV-B intensity 2-5 $\mu\text{W}/\text{cm}^2$, except in second experiment with X, *Laetis* with UV-B from 0.5 to 1.5 $\mu\text{W}/\text{cm}^2$; tests were performed at 22-25 $^{\circ}\text{C}$
- 88: simulated solar radiation; visible light (PAR):UV-A:V-B=100:10:1 and a total fluence rate of 100 $\mu\text{mol}/\text{m}^2/\text{s}$; test performed at 23 $^{\circ}\text{C}$
- 89: UV irradiation: UV-A: 456.2 \pm 55 $\mu\text{W}/\text{cm}^2$; UV-B: 6.3 \pm 0.1 $\mu\text{W}/\text{cm}^2$; photoperiod of 12:12 h light:dark; test performed at 20 $^{\circ}\text{C}$
- 90: Sediment test
- 91: determined from presented data and LC50 with log-logistic dose-response relationship
- 92: determined from presented data with log-logistic dose-response relationship
- 93: exposed to 1h UV light at the end of the 10-d test (UV-A: 97 $\mu\text{W}/\text{cm}^2$ and UV-B: 2225 $\mu\text{W}/\text{cm}^2$)
- 94: single concentration no dose-response curve; SSR at 100 $\mu\text{mol m}^{-2} \text{s}^{-1}$ based on integration of 290-700 nm
- 95: cool fluorescent white light (100 $\mu\text{mol m}^{-2}\text{s}^{-1}$)
- 96: simulated solar radiation (100 $\mu\text{mol m}^{-2}\text{s}^{-1}$)
- 97: after pretreatment with SSR for photomodification
- 98: Gold light (0.17 $\mu\text{W}/\text{cm}^2$ UV-B, 0.09 $\mu\text{W}/\text{cm}^2$ UV-A, 167.72 $\mu\text{W}/\text{cm}^2$ visible); 16:8 h light;dark
- 99: Fluorescent light (1.32 $\mu\text{W}/\text{cm}^2$ UV-B, 13.65 $\mu\text{W}/\text{cm}^2$ UV-A, 424.69 $\mu\text{W}/\text{cm}^2$ visible); 16:8 h light;dark
- 100: UV enhanced light (7.54 $\mu\text{W}/\text{cm}^2$ UV-B, 102.08 $\mu\text{W}/\text{cm}^2$ UV-A, 289.24 $\mu\text{W}/\text{cm}^2$ visible); 16:8 h light;dark
- 101: Dim yellow light >500 nm
- 102: determined from data from figures and log-logistic dose-response relationship
- 103: in 20% methanol (!)
- 104: under UV: 254 nm; 2.49E18 quanta/L s

- 105: after exposure for 24 h at 16:8 light:dark exposure to UV (295-365 nm; peak 340 nm; intensity $370 \pm 20 \mu\text{W}/\text{cm}^2$) for 2 h and 1 h of recovery in test medium; temperature $21 \pm 1 \text{ }^\circ\text{C}$, increased by less than $2 \text{ }^\circ\text{C}$ during UV-radiation
- 106: light intensity 400 foot candles
- 107: UV irradiation: UV-B (peak 313 nm; range: 294-400 nm): $2.3 \text{ kJ}/\text{m}^2/\text{h}$ for 2 times 2 h per day
- 108: after photomodification UV-B (290-320 nm); $40 \mu\text{mol m}^{-2}\text{s}^{-1}$ for 24 h (anthracene), 48 h (phenanthrene) or 96 h (benzo(a)pyrene) $25 \mu\text{mol m}^{-2}\text{s}^{-1}$ for 5 d (fluoranthene, naphthalene) or 7 d (pyrene)
- 109: visible light; light regime: two cool white fluorescent lamps
- 110: SSR: ratio visible: UV-A: UV-B=100:10:1 based on the number of photons, total intensity varying from 20 to $60 \mu\text{mol m}^{-2} \text{ s}^{-1}$
- 111: SSR: total intensity $40 \mu\text{mol m}^{-2} \text{ s}^{-1}$; UV-B varying from 1 to 4% of visible light
- 112: Visible light, total intensity varying from 60 to $150 \mu\text{mol m}^{-2} \text{ s}^{-1}$
- 113: after photomodification UV;B $6 \mu\text{mol m}^{-2}\text{s}^{-1}$ until less than 10% of the parent compound remained
- 114: after photomodification UV;B (290-320 nm; $25 \mu\text{mol m}^{-2}\text{s}^{-1}$) for various time periods
- 115: SSR: $250 \mu\text{mol m}^{-1} \text{ s}^{-1}$
- 116: after photomodification UV-B (290-320 nm); $25 \mu\text{mol m}^{-2}\text{s}^{-1}$ for 5 d (anthracene) or 7 d (benzo[a]pyrene, fluoranthene)
- 117: single concentration, no dose-response curve; natural sunlight for 16 h per day visible:UV-A:UV-B 200:10:1, $1700 \mu\text{mol m}^{-2} \text{ sec}^{-1}$
- 118: after photomodification for 7 d in natural sunlight for 16 h per day visible:UV-A:UV-B 200:10:1, $1700 \mu\text{mol m}^{-2} \text{ sec}^{-1}$
- 119: after photomodification for 16 d in natural sunlight for 16 h per day visible:UV-A:UV-B 200:10:1, $1700 \mu\text{mol m}^{-2} \text{ sec}^{-1}$
- 120 after photomodification UV;B (290-320 nm; $20 \mu\text{mol m}^{-2}\text{s}^{-1}$)
- 121: In the third experiment no effect was observed at the highest tested concentration of $7.2 \mu\text{g}/\text{L}$, this value is considered in the geometric mean as NOEC because it is higher than the two NOECs from the other experiments
- 122: light regime: 12 h incubation in the dark, then constant light with "white fluorescent bulbs" used with a filter to eliminate UV-A+B (<390 nm); UV-A produced by blacklights, the intensity of the UV-A in the test was $410 \mu\text{W}/\text{cm}^2$; UV-B radiation was filtered from the blacklight spectrum.
- 123: light regime: 12 h incubation in the dark, then constant light with "white fluorescent bulbs" used with a filter to eliminate UV-A+B (<390 nm); UV-A produced by blacklights, the intensity of the UV-A in the test was $406 \mu\text{W}/\text{cm}^2$; UV-B radiation was filtered from the blacklight spectrum.
- 124: light regime: 12 h incubation in the dark, then constant light with "white fluorescent bulbs" used with a filter to eliminate UV-A+B (<390 nm); UV-A produced by blacklights, the intensity of the UV-A in the test was $218 \mu\text{W}/\text{cm}^2$; UV-B radiation was filtered from the blacklight spectrum.
- 125: light regime: 12 h incubation in the dark, then constant light with "white fluorescent bulbs" used with a filter to eliminate UV-A+B (<390 nm); UV-A produced by blacklights, the intensity of the UV-A in the test was $125 \mu\text{W}/\text{cm}^2$; UV-B radiation was filtered from the blacklight spectrum.
- 126: data from two separate tests combined
- 127: geometric mean of three tests

- 128: tidal schedule with 33% exposure to air; animals from field population acclimated for 1 month
- 129: tidal schedule with 66% exposure to air; animals from field population acclimated for 1 month
- 130: Light regime during hatching: 16:8 light:8 fluorescent light with UV-A ($67.94 \pm 9.02 \mu\text{W}/\text{cm}^2$ at $365 \pm 36 \text{ nm}$) and UV-B ($6.71 \pm 0.81 \mu\text{W}/\text{cm}^2$ at $310 \pm 34 \text{ nm}$)
- 131: Light regime during hatching: 16:8 light:8 gold fluorescent light $>500 \text{ nm}$
- 132: NOECs based on actual concentrations. Actual concentrations ranged from an average value of 87% after preparation of the solution to just above or below the detection limit before renewal. Concentrations calculated as half the initial concentration (average recovery times the nominal concentration)
- 133: NOECs based on actual concentrations. Actual concentrations ranged from 78 to 142% with an average value of 118%. Concentration calculated as average recovery times the nominal concentration.
- 134: NOECs based on actual concentrations. Actual concentrations ranged from an average value of 83% after preparation of the solution to just above or below the detection limit before renewal Concentrations calculated as half the initial concentration (average recovery times the nominal concentration)
- 183: continuous visible light with a total visible fluence rate of $100 \mu\text{mol}/\text{m}^2/\text{s}$
- 136: only one concentration tested
- 137: strong decrease in test concentration: 7% recovered after 96 h; initial concentration is 102% of nominal concentration
- 138: strong decrease in test concentration: 22% recovered after 96 h; initial concentration is 95% of nominal concentration
- 139: as 26 except oxygen concentration is $5.0 \text{ mg}/\text{L}$
- 140: as 28 except oxygen concentration is $5.0 \text{ mg}/\text{L}$
- 141: precipitate formed
- 142: light regime 12:12 h light:dark at 875 to 1000 ft-c from cool-white fluorescent bulbs; growth rate from 1 to 4 d seems not to be affected (possibly due to loss of compound)
- 143: light regime: continuous light at $9.514\text{-}19.028 \text{ W m}^{-2} \text{ sec}^{-1}$ (200-400 foot candles). Concentrations declined significantly in 14 d. Acenaphthene, fluorene, naphthalene, and pyrene almost completely disappeared, benz[a]anthracene, phenanthrene, chrysene, and fluoranthene by 85, 77, 62, and 49% respectively
- 144: light regime 6:18 sunlight:dark
- 145: light regime 16:8 h light:dark ($10\text{-}20 \mu\text{E}/\text{m}^2/\text{s}$; 50-100 ft-c)
- 146: light regime 16:8 h light:dark (1000 lux); temperature $20 \text{ }^\circ\text{C}$
- 147: test performed at 40°C . Concentration declined to undetectable levels after 96 h
- 148: test performed at 80°C . Concentration declined to undetectable levels after 72 h
- 149: test performed at 120°C . Concentration declined to undetectable levels after 48 h
- 150: especially higher concentrations declined in 48 h, lower concentration were $0.5 \mu\text{g}/\text{L}$
- 151: irradiated throughout the experiment with UV-A light: (320-400 nm; maximum at 365 nm) at $2.5 \text{ W}/\text{m}^2$
- 152: renewal was every 3 days; after 2 and 3 days phenanthrene was not detected anymore; results are based on nominal concentrations
- 153: Average concentration over 4 days estimated to be 25% of nominal concentration

- 154: pre-exposure of 24 h followed by 30 min irradiation with natural sunlight on a clear day: UV-intensity 4245 $\mu\text{W}/\text{cm}^2$
- 155: pre-exposure of 24 h followed by 60 min irradiation with natural sunlight on a partly cloudy day: UV-intensity 2441 $\mu\text{W}/\text{cm}^2$
- 156: pre-exposure of 24 h followed by 30 min irradiation with natural sunlight on a complete cloudy day: UV-intensity 1657 $\mu\text{W}/\text{cm}^2$
- 157: pre-exposure of 24 h followed by 45 min irradiation with natural sunlight on a clear day covered with a filter for UV-B (70-75% reduction in 285-315 nm)
- 158: pre-exposure of 24 h followed by 45 min irradiation with natural sunlight on a clear day covered with a filter for UV-A and UV-B (70-75% reduction in 285-380 nm)
- 159: pre-exposure of 24 h followed by 45 min irradiation with natural sunlight on a clear day covered with a filter to reduce the total spectrum (>285 nm): UV-intensity 1314 $\mu\text{W}/\text{cm}^2$
- 160: artificial light with low UV emission used
- 161: artificial light simulated sunlight with 30-65 $\mu\text{W}/\text{cm}^2$ UV-A (310-420 nm; peak at 350 nm) and 0.5-5 $\mu\text{W}/\text{cm}^2$ UV-B (250-400 nm; peak at 290 nm)
- 162: determined from data from two EC_x data and log-logistic dose-response relationship
- 163: light regime 16:8 light:dark
- 164: light regime 16:8 light:dark; mercury lamps with 150 $\mu\text{E}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$
- 165: fluorescent light at 4-8 klux; to some of the air-tight flasks enrichment with HCO₃⁻ was added in different quantities to control pH
- 166: from a population pre-exposed to 7.9 ± 0.8 $\mu\text{g}/\text{L}$ during breeding and 6.2 ± 0.8 $\mu\text{g}/\text{L}$ during hatching and rearing
- 167: 6000-8000 lux
- 168: photoperiod 16:8 h light:dark at less than 500 lux
- 169: constant illumination at 4000 lux
- 170: in the presence of sediment
- 171: values based on nominal concentrations; actual concentrations were decreased by 20 to 30% initially and by 32 to 52% at the end of the 96 h toxicity studies. Average values were decreased by 76% in the daphnid study, 51% in the chironomid study, and 66% in the bluegill sunfish study
- 172: in the dark for 2 h, then irradiated with fluorescent UV-lamps at 975-1000 $\mu\text{W}/\text{cm}^2$ with maximum at 312 nm for 8 h
- 173: in the dark for 2 h, then irradiated in sunlight at 407-1428 $\mu\text{W}/\text{cm}^2$ >290 nm for 8 h
- 174: in the dark for 2 h, then irradiated with fluorescent UV-lamps at 975-1000 $\mu\text{W}/\text{cm}^2$ with maximum at 375 nm for 8 h
- 175: light regime: 16:8 h light:dark by fluorescent bulbs at 1100 lx: test performed at 30 °C (acute) and 29 ± 1 °C (chronic): measured concentrations were 68-90% (acute) and 110-168% (chronic) of nominal
- 176: different from solvent control (acetone), not different from seawater control, i.e. acetone had a positive effect
- 177: results based on nominal concentrations; actual concentrations were 45-90% of nominal
- 178: photoperiod of 16:8 h light dark under cool white fluorescent lamps at an intensity of 28 lx; chronic experiments are in duplicate
- 179: laboratory fluorescent light with UV radiation very similar to sunlight; test performed at 25 ± 0.5 °C

- 180: fluorescent light with $9.70 \pm 0.66 \mu\text{W}/\text{cm}^2$ UV-A (365 \pm 36 nm) and $3.37 \pm 0.22 \mu\text{W}/\text{cm}^2$ UV-B (310 \pm 34 nm) with a photoperiod of 16:8 h light:dark; test performed at $21.5 \pm 0.7 \text{ }^\circ\text{C}$
- 181: ultraviolet light with $397 \pm 35.1 \mu\text{W}/\text{cm}^2$ UV-A (365 \pm 36 nm) and $134 \pm 22.8 \mu\text{W}/\text{cm}^2$ UV-B (310 \pm 34 nm) with a photoperiod of 16:8 h light:dark; test performed at $21.5 \pm 0.7 \text{ }^\circ\text{C}$
- 182: UV lacking fluorescent laboratory lighting with a photoperiod of 12:12 h light:dark; test performed at $20 \text{ }^\circ\text{C}$
- 183: continuous visible light with a total visible fluence rate of $100 \mu\text{mol}/\text{m}^2/\text{s}$
- 184: continuous simulated solar radiation with a total visible fluence rate of $100 \mu\text{mol}/\text{m}^2/\text{s}$
- 185 test performed at $15 \text{ }^\circ\text{C}$
- 186: After photomodification with $20 \mu\text{mol}/\text{m}^2/\text{s}$ UV-B (comparable to sunlight) for 7 d
- 187: laboratory ultraviolet light with $283 \mu\text{W}/\text{cm}^2$ UV-A and $47 \mu\text{W}/\text{cm}^2$ UV-B and a photoperiod of 12:12 h light dark; test performed at 20-25 $^\circ\text{C}$
- 188: laboratory ultraviolet light with $612 \mu\text{W}/\text{cm}^2$ UV-A and $82 \mu\text{W}/\text{cm}^2$ UV-B and a photoperiod of 12:12 h light:dark; test performed at 20-25 $^\circ\text{C}$
- 189: laboratory fluorescent light and a photoperiod of 16:8 h light dark; test performed at 20-25 $^\circ\text{C}$ except the test with winter flounder which was at $6 \text{ }^\circ\text{C}$
- 190: laboratory ultraviolet light with $465\text{-}724 \mu\text{W}/\text{cm}^2$ UV-A and $68\text{-}109 \mu\text{W}/\text{cm}^2$ UV-B and a photoperiod of 16:8 h light dark; test performed at 20-25 $^\circ\text{C}$ except the test with winter flounder which was at $6 \text{ }^\circ\text{C}$
- 191: laboratory ultraviolet light with $7 \mu\text{W}/\text{cm}^2$ UV-A and a photoperiod of 16:8 h light dark; test performed at 20-25 $^\circ\text{C}$
- 192: laboratory ultraviolet light with $64 \mu\text{W}/\text{cm}^2$ UV-A and a photoperiod of 16:8 h light dark; test performed at 20-25 $^\circ\text{C}$
- 193: laboratory ultraviolet light with $360 \mu\text{W}/\text{cm}^2$ UV-A and a photoperiod of 16:8 h light dark; test performed at 20-25 $^\circ\text{C}$
- 194: laboratory ultraviolet light with $676 \mu\text{W}/\text{cm}^2$ UV-A and a photoperiod of 16:8 h light dark; test performed at 20-25 $^\circ\text{C}$
- 195: laboratory ultraviolet light with $1788 \mu\text{W}/\text{cm}^2$ UV-A and a photoperiod of 16:8 h light dark; test performed at 20-25 $^\circ\text{C}$
- 196: fluorescent light with a photoperiod of 16:8 h light:dark and intensity of 270 lux; test performed at $24.5 \pm 1 \text{ }^\circ\text{C}$
- 197: derived from the figures with mean, standard error and number of replicates
- 198: test performed outdoors in sunlight with $200\text{-}1650 \mu\text{W}/\text{cm}^2$ UV-A and $45\text{-}320 \mu\text{W}/\text{cm}^2$ UV-B; temperature 18-22 $^\circ\text{C}$
- 199: cultured at $23 \pm 1 \text{ }^\circ\text{C}$
- 200: test performed with $250 \mu\text{W}/\text{cm}^2$ UV-A 320-400 nm; peak at 365 nm; temperature $20 \pm 0.5 \text{ }^\circ\text{C}$
- 201: test performed with continuously irradiation with $2100 \mu\text{W}/\text{cm}^2$ visible light 400-750 nm $20 \pm 0.5 \text{ }^\circ\text{C}$
- 202: test performed at $4 \text{ }^\circ\text{C}$
- 203: at $25 \pm 1 \text{ }^\circ\text{C}$; photoperiod 15:9 h light:dark by white fluorescent lamps with an intensity of $40 \mu\text{E}/\text{m}^2/\text{s}$ based on nonexponential growth after 7 d; tested concentrations above aqueous solubility except for pyrene and the two lowest concentrations of naphthalene
- 204: UV-A = $64.7 \pm 1.0 \mu\text{W}/\text{cm}^2$
- 205: 16:8 light:dark photoperiod with fluorescent light, $20 \text{ }^\circ\text{C}$

206: 16:8 light:dark photoperiod with fluorescent light, 20 °C followed by 1 h of UV exposure with 13 W/m² UV-A (320-400 nm) and 2.5 W/m² UV-B (290-330 nm). Sunny summer day in Hamilton NZ: 35 W/m² UV-A and 4.3 W/m² UV-B

207: test performed at 20±1 °C

208: exposure ca. 12 h in the dark followed by 30 min irradiation with 13.5 W/m² UVA (>320, <400nm, peak 350 nm); mortality recorded after a recovery period of 24 h in water with food in the dark; data after 11 days for adult emergence are not suitable because control mortality is not well-defined