

# **Absolute configuration of chlorosulfolipids from the chrysophyta *Ochromonas danica***

## **Abstract**

(Chemical Equation Presented) We isolated eight chlorosulfolipids (1-8) from the chrysophyta *Ochromonas danica* (IAM CS-2), including five new chlorosulfolipids (2-5, 8). The planar structures of all the compounds were elucidated by 1D and 2DNMR and ESI-MS/MS analyses. We determined the relative configuration of seven chlorosulfolipids (1-7), including the most commonly known chlorosulfolipid, 2,2,11,13,15,16-hexachlorodocosane-1,14-disulfate (1), by J-based configuration analysis (JBCA). The absolute configuration of each compound was determined using a modified Mosher's method after chemical degradation. 2,2,11,13,15,16-Hexachloro-14-docosanol-1-sulfate (2) was the most toxic to brine shrimp (*Artemia salina*) larvae (LC50 0.27 µg/mL). Compounds 1 and 4-8 were less toxic (LC50 2.2-6.9 µg/mL). Compound 3 was not toxic at 30 µg/mL. © 2009 American Chemical Society.