

# **Isolation and identification of seven microcystins from a cultured M.TN-2 strain of *Microcystis aeruginosa*.**

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## **Abstract**

Seven microcystins (MCYSTs), three major and four minor ones, were isolated from a cultured *Microcystis aeruginosa* strain M.TN-2 isolated from an eel pond in southern Taiwan in the summer of 1993. Microcystins were separated by a column separation of LH-20 gel filtration chromatography, a subsequent silica gel flash column chromatography, and then purified by a reversed phase high performance liquid chromatography. MCYST-LR, -RR, -RA, -FR, -WR, [D-Asp3] MCYST-FR, and [D-Asp3] MCYST-WR were characterized and determined by amino acid analysis, MALDI-TOF mass spectrometry, <sup>1</sup>H and DQF-COSY nuclear magnetic resonance spectroscopy and UV spectroscopy. Among them, [D-Asp3] MCYST-FR and [D-Asp3] MCYST-WR, two new compounds, were the desmethyl variants of MCYST-FR and MCYST-WR, respectively.

Keywords: Cyanobacteria; Hepatotoxin; Microcystin; *Microcystis aeruginosa*