

## Supplementary Material

### ***Direct online quantitation of 2-methyl-3-methoxy-4-phenyl butanoic acid for total microcystin analysis by condensed phase membrane introduction tandem mass spectrometry***

Kyle D. Duncan<sup>1</sup>, Daniel G. Beach<sup>2</sup>, Elliott J. Wright<sup>2</sup>, Todd Barsby<sup>1</sup>, Chris G. Gill<sup>1,3,4,5</sup> Erik T. Krogh<sup>1,3</sup>

<sup>1</sup> Applied Environmental Research Laboratories, Department of Chemistry, Vancouver Island University, Nanaimo, British Columbia, Canada

<sup>2</sup> Measurement Science and Standards, National Research Council Canada, Halifax, Nova Scotia, Canada

<sup>3</sup> Department of Chemistry, University of Victoria, Victoria, British Columbia, Canada

<sup>4</sup> Department of Chemistry, Simon Fraser University, Burnaby, British Columbia, Canada

<sup>5</sup> Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, WA, USA

#### Keywords:

Microcystins, algal toxins, 2-methyl-3-methoxy-4-phenyl butyric acid, MMPB, membrane introduction mass spectrometry, tandem mass spectrometry, electrospray ionization, CP-MIMS

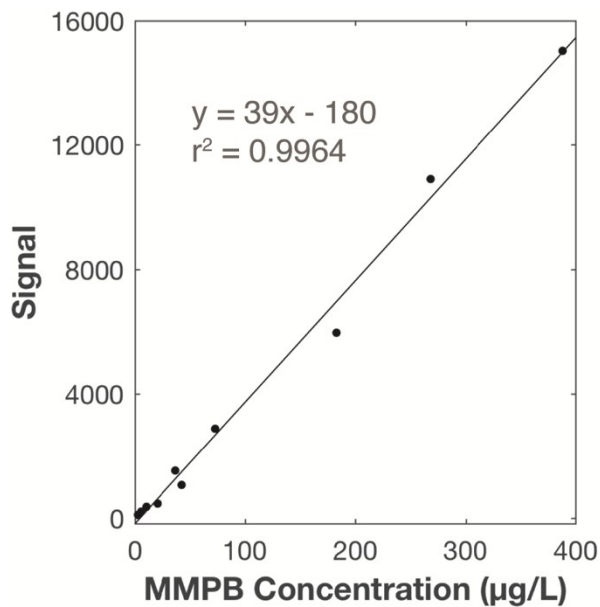


Figure S1. CP-MIMS generated standard curve for MMPB. The concentration range measured is 2.5 – 390  $\mu\text{g/L}$  MMPB.

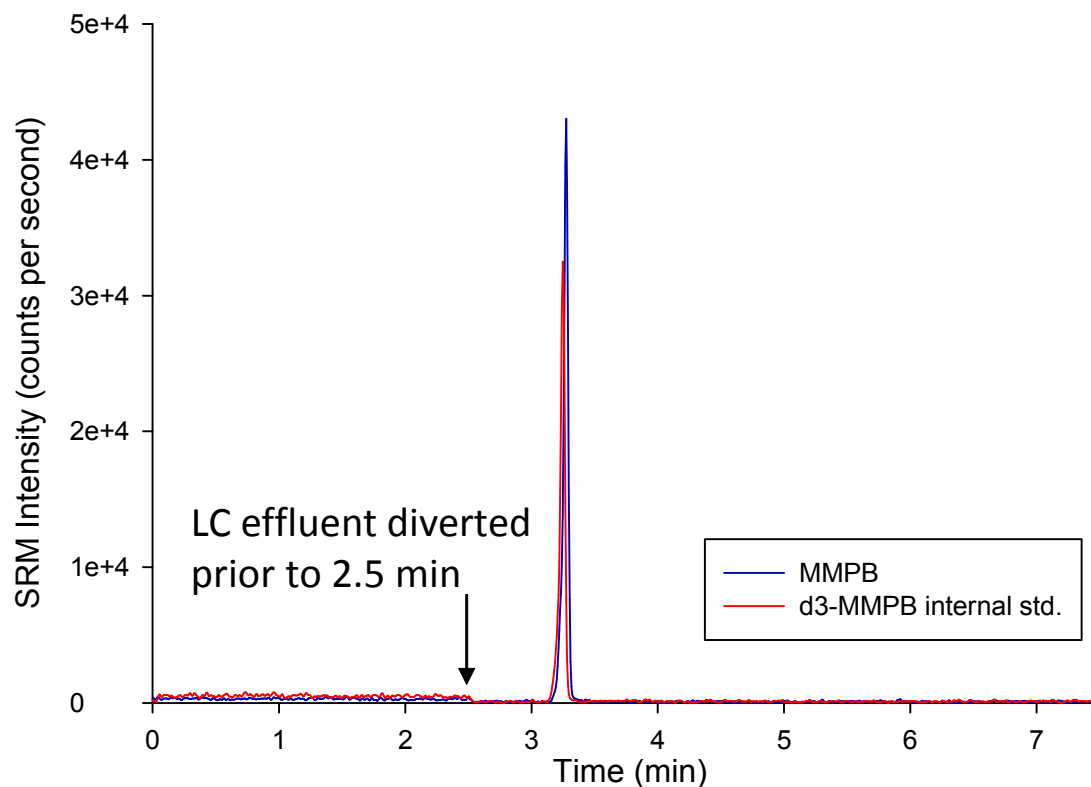


Figure S2: LC-MS/MS analysis of MMPB released from an algal reference material (RM-BGA) after oxidation and spiked MMPB- $d_3$  used in isotope dilution calibration.