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Ocean Science
Discussions

Interactive comment on "Segmented flow coil equilibrator coupled to a Proton Transfer Reaction Mass Spectrometer for measurements of a broad range of Volatile Organic Compounds in seawater" *by* Charel Wohl et al.

Anonymous Referee #2

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General comments: In this paper, the authors developed and evaluated a novel measurement system, SFCE extraction coupled with PTR-MS. The authors also deployed the system on a research cruise in the Canadian Arctic and obtained suitable dataset of dissolved VOC in surface water. The success of the reduction of sample water volume made the availability of this system for not only continuous measurement but also discrete sample, therefore, vertical profiling of dissolved VOCs. This function has not reported suitably in the previous continuous measurement systems. Generally, the explanation of the system and their evaluation of the system has been well organized and

presented in this paper, and I totally agree with their arguments here. I found that the improvement shown in this manuscript is worthy to be published in Ocean Science with minor revision.

Specific comments: References: Please check the form of references shown in the text. For example, "Blando & Turpin, 2000" (page 1, line 28) should be shown as "Blando and Turpin, 2000", and "de Bruyn, Clark, Senstad, Barashy, & Hok, 2017" (page 2, line 43) should be shown as "de Bruyn et al., 2017".

Page 2, line 35 Please add the suitable references.

Page 3, line 88 The response time of 10 min is only for isoprene, not for the other compounds such as acetone, methanol and so on.

Page 3, line93-102 Those explanations itself are generally well, but not suitable in introduction section. I assume that those sentences could be removed.

Page 10, line 334 Ionized toluene should be found in not only m/z 93 but also m/z 79 depending on the drift tube voltage. Did the authors find the fragmentation of toluene? m/z 79 is used to identify benzene amount, therefore, the authors need to care of existence of the fragmentation.

Page 11, line 354 What is the ratio of "100 cm3n:100 cm3" here? Maybe typo?

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