

Interactive comment on “Technical Note: Gas Phase Pesticide Measurement Using Iodide Ionization Time-of-Flight Mass Spectrometry” by Trey Murschell et al.

Anonymous Referee #3

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The authors describe measurements of four commonly used pesticides using chemical ionization time-of-flight mass spectrometry (CIMS), using iodide (water clusters) as chemical reagent ion. The limits of detection of the four pesticides are relatively high, suggesting that the method is adequate for laboratory experiments and, potentially, ambient near-source measurements, but not for more remote measurements. The manuscript is generally well written and the techniques used are sound. I recommend publication of the manuscript after my following comments have been addressed:

Major comments: 1. In section 3.2 the authors list three assumptions made in their measurements and quantification. An additional assumption seems to be that the species (pesticides) are not lost to the inlet or any other internal surfaces of the in-

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strument. I am especially worried about this for the species analyzed as they have low vapor pressure and are therefore more likely lost to surfaces, and request that the authors address this concern in a revised version of the manuscript. 2. An additional challenge to applying the methods to field measurements (discussed in the conclusion) seems to be the limit of detection. This should probably be mentioned again in the conclusion.

Organizational comment: The section on fitting peaks (lines 307-320) seems too much discussion for a conclusion section. I suggest that (most of) this discussion be moved to section 3.

Editorial comment: In line 308 “identify” should be replaced with “identity”

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2016-421, 2017.

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