

Interactive comment on “Development of automated preparation system for isotopocule analysis of N₂O in various air samples” by Sakae Toyoda and Naohiro Yoshida

Anonymous Referee #1

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The manuscript describes a new and very sophisticated method for measuring N₂O from a broad range of concentrations with very high precision. The manuscript is well written, the method is sound and useful, therefore I suggest to accept the manuscript for publication. However, there are some minor issues the authors should address before final publication:

1. When describing the setup in the text, the authors should refer to the abbreviations used in Fig. 1 (e.g. p3, lines 15 you should detail that the “multi-position six-port valve” is SV1 in the Figure, and accordingly with all elements throughout the text)
2. P3, line 20: to me (a non-native speaker) ss is more common than SUS for stainless steel

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3. P4, line 2: if I understand this correctly, EITHER V1 and V2 OR V3 and V4 are closed.
4. P4, line9: please which concentration trap you refer to here (is it T1?)
5. P4, line 13: I might have missed something, but do you detail how/how often the molecular sieves and charcoal are renewed/cleaned?
6. P4. Line 15: V15 is open already at this moment
7. P6, line 27: should turbular be replaced by turbulent?
8. Figure 3: Please use kPa (not Torr) for all pressure readings
9. Figure 3: Please specify what “n meas” and “n meas1” is exactly
10. Figure 3: Please use different abbreviation/symbol for Volume and Valve. Using V for both is very confusing. Please also make sure that this (new) denomination is consistently used throughout the manuscript

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