

Interactive comment on “EuBrewNet – A European Brewer network (COST Action ES1207), an overview” by John S. Rimmer et al.

Anonymous Referee #1

Received and published: 13 February 2018

EuBrewNet - A European Brewer network (COST action ES1207), an overview by J. Rimmer et al.

The manuscript describes the progress made during the Cost action in establishing a quality assessed and quality controlled network of Brewer instruments in Europe, with the focus on total ozone column (TOC) measurements. This is important and relevant for a broad audience interested in high quality ozone measurements (eg. for trend analysis or validation of satellite observations). Therefore it would be worth publishing in ACP. There are however some points that need improvement before acceptance which I list hereafter.

The introduction should make more references to relevant papers. Some examples:

C1

p2 near line 15: give a reference for the involvement of ozone in radiative processes

p2 near line 22: give reference about representativity of satellite measurements

p2 near line 24: refer also to the Brewer manual

The description of the procedures for calculation of TOC and corrections could be better clarified. This would help the non Brewer specialist.

p4 line 17: The description should be corrected: actually the Brewer instrument makes 5 consecutive measurement (direct sun observations). Each of these consists of a number of cycles (standard 20) of quasi simultaneous measurements of the different wavelengths by fast switching the entrance slit mask.

p4 line 23: it should be clear which double ratio is used. Maybe it is better to write down explicitly in a general notation (eg see De Backer and De Muer, JGR 96, D11, p20711-20719, 20 Nov 1991) what is meant actually. MS9 is a naming of an internal variable of the Brewer software and it is the log of the measured intensity ratio.

p5 line 6: if the notation above is adopted it becomes clear that R6 is the same measurement but on the internal standard lamp

on p5 line 19: is this formula correct? what is the meaning of the multiplication factor O3 on the right hand side of eq (5)? please clarify.

on p6 line 1-2: it is more accurate to mention this as 5 consecutive measurements (see also comment above p4 line 17)

on p 8 line 11 there is reference to a figure 2 that mentions filter correction, but there is no figure about the filter correction; please correct

C2

