

Review of Stability of the Regional Brewer Calibration Center for Europe
Triad during the period 2005 – 2016
By Sergio Fabián León-Luis et al

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General comments:

The revised text shows significant improvements compared to the originally submitted. The revised manuscript still reads a little too much as popular science with unconventional terminology and loosely used words (“measuring the signal intensity” or “The grating system separates the solar radiation”). If the reader overlooks this then it is possible to understand the significance of the good long-term agreement of the RBCC-E triad of Brewers.

Title: The word stability in the title implies that the Brewer triad at RBCC-E was stable, but this is not what the content of the paper shows. It shows good agreement between the three Brewers that were regularly absolutely and independently calibrated, or re-calibrated. The paper doesn't claim or show that the triad was not changing, however it does show that the changes did not affect the agreement between the Brewers once they have been properly calibrated. I suggest using something like “consistency” instead of “stability”.

P1L4 “its own calibration” may be interpreted as “different” from others. I suggest saying that RBCC-E is using traveling standard(s) that are absolutely and independently calibrated at Izana.

P1L19 replace “measurement” with “calculation”

P1L20 “accuracy” implies that you are comparing to the true value of some sort. What you are investigating is sensitivity or precision (or uncertainty)

P2L1-3 these sentences are not connected to each other. It looks like you've removed some text and didn't rephrase what's left. E.g. what “decrease”?

P2L10 “This instrument is mounted on an azimuth tracker that determines the TOC...” the tracker definitely does not determine the TOC!

P2L11 “The grating system separates the solar radiation” separates into/from what? Please use the established scientific terminology. “The grating system” as you called it is in fact a diffraction grating that can be turned with a stepper motor that together with a slit mask allows the selection of solar radiation bands at the exit slit(s) of the monochromator.

P2L17 Stray light certainly doesn't cause any decrease in TOC. It causes underestimation of TOC in the calculations when no stray light correction is applied.

P2L32 “its own” see comment above

P3L16 “conducted”

P5EQ1 what are the units of O3 in this equation? Be careful, this is a trick question (but important!).