

Dear Editor,

we are submitting the paper “3D-printers dielectric materials characterization at microwave frequencies” which is an extension of the attached work presented at the 23rd IMEKO TC-4 Symposium (Sept. 17-20, 2019, Xi’An,China).

The paper is focused on a new measurement technique for the complex permittivity evaluation of dielectric materials. With respect to the original version of the conference paper, we added the following parts:

- Measurement sensitivity analysis: the measurement sensitivity was studied in depth in order to assess the best sample geometry. The Figure 2 was added in this extended version;
- The uncertainty analysis was expended and evaluated in the whole dielectric constant-loss tangent plane. We also added the contour plots of Figure 3;
- Finally, to check the accuracy of the dielectric constant estimation, we performed a comparison with the well-known Nicholson-Ross-Weir method. For this reason, we printed new samples, made of the same material previously used, and performed the dielectric constant characterization through a WR90 waveguide in transmission and reflection mode. The obtained result agrees with that obtained with the new technique. We added also Figure 6 to show the new measurement results.
- The whole paper was slightly modified in order to fit better with the new sections.

We think that the new added sections meet well the 30 % extension contribution requested and that the manuscript is now suitable for publication in ActaIMEKO.

Finally, we want just to report that the corresponding author of this work is Andrea Alimenti (andrea.alimenti@uniroma3.it) and not the second corresponding author that you will find in the paper. Unfortunately, that field of the template is protected with password thus it was not possible to modified.

Best regards,

Andrea Alimenti

On behalf of all the author.