Dear Editor,

we submit the enclosed manuscript entitled “PMMA-coated fiber Bragg grating sensor for measurement of Ethanol in liquid solution: manufacturing and metrological evaluation” coauthored by Antonino Quattrocchi, Roberto Montanini, Mariangela Latino and Nicola Donato for consideration for publication in the Special Issue of ACTA IMEKO Journal. This article is a widely extended version of the conference proceeding presented at IMEKO TC-4 2020 Symposium, “Development and characterization of a fiber Bragg grating ethanol sensor for liquids”, which is cited as reference [22]. Following on from the results of the previous proceedings version, we present a greatly improved and comprehensively extended investigation. A brief list of the new activities is reported below:

* investigation of the different response of the FBG Ethanol sensor when it is in air, into distilled water and exposed to an Ethanol concentration of 7.89 % v/v at a constant temperature of 25 °C;
* illustration of the response of the FBG Ethanol sensor at progressive Ethanol concentrations;
* comparison between the calibration curves of the PMMA coated FBG (i.e. FBG Ethanol sensor) and the uncoated FBG with residual estimation of the fittings;
* sensitivity evaluation of the PMMA coated FBG (i.e. FBG Ethanol sensor) and comparison with the sensitivity of the uncoated FBG;
* extension of the bibliography.

Furthermore, the work has been widely rewritten, the bibliography has been extended and all the figures have been updated.

We hope that this letter has clarified our new contribution.

Thank you for your consideration of our manuscript.

Yours Sincerely,

The coauthors