



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	2013_IRJPAC_8720
Title of the Manuscript:	RP-HPLC Determination of Benzoic Acid in Samples of Children Food Distributed in Aden-Yemen

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
The authors have modified the Paper by following the most part of suggestions listed in the first evaluation form. Some corrections are still required (in order of importance): 1) The most important point to revise is the estimation of LOQ and the consequent re-elaboration of obtained data. If the authors do not define unequivocally this parameter, the results (and consequently the entire work) cannot be considered reliable. 2) The LOQ is equal to 1.435 mg L^{-1}. This value (evaluated from regression curve) is referred to the final signal obtained by injecting the sample. 3) This concentration must be multiplied for the dilution factor (50 for solids and 5 for liquids) to obtain the concentration in the sample. 4) Following these steps we obtain a LOQ (in matrix) equal to 71.75 and 7.18 mg kg^{-1} for solid and liquid matrices respectively. 5) It is clear that many samples are characterized by concentrations lower than LOQ. 6) In order to increase method sensibility and to lower the LOQ value it is possible to include some points at low concentration in the calibration curve (i.e. 1.5, 3.0, 6.0 mg L^{-1}). 7) By this way the LOQ elaboration will produce a more low value that will allow to quantifying the most part of obtained concentrations. 8) Note that all values included in the range from LOD to LOQ may be reported as "present but not quantifiable". 9) Through this re-elaboration it is possible to solve another strangeness of this work that is the absence of samples with no added benzoic acid. 10) It is necessary to adopt another type of graphic (i.e vertical bars) for the figures 3, 4 and 5 since there are no trends but graphical visualizations of available data. Others minor corrections: Abstract: " 1. Analytical performances"	<u>Line 114-124 page 4</u> The detection limit is determined by the analysis of samples with known concentrations of analyte and by establishing the minimum level at which the analyte can be reliably detected .The quantitation limit is generally determined by the analysis of samples with known concentrations of analyte and by establishing the minimum level at which the analyte can be quantified with acceptable accuracy and precision.Detection limits is estimated as, $\text{LOD}=3.3\text{SD}/\text{S}$ and quantitation limit as, $\text{LOQ}=10\text{SD}/\text{S}$,were SD is the standard deviation of the intercept ,and S is the slop of the regression line obtained from the calibration curve. The calibration curve is done using (5-100 mg/l)standard benzoic acid .The validity is based on the above mentioned calibration curve , therefore the mentioned method performance is quite right . THERE IS NO NEED TO MULTIPLY THE CONCENTRATION Y DILUTION FACTORS. The dilution factor were employed in the calculation of studied commercial liquid and solid samples as you mentioned .



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Experimental part: 2. please delete the points after mL (use mL in the place of ml). 3. How samples were ground? Please specify. 4. Please include more info about "BDH". 5. How many replicates were analysed for each sample? Please specify. 6. Please include the flow rate of HPLC method 7. and more info about "Origin" program. 8. Please specify the concentrations of standards used to build the calibration curve. Results and discussion: 1. Please correct the title of paragraph: "Application to commercial samples". Please include a reference for the sentence 2. "The content of benzoic acid in these samples.....in milk and cheese to benzoic acid" and an update relating to European Regulations (Reg. 1129/2011/EC). 3. The samples characterized by high concentrations (i.e. 632, 849 mg kg⁻¹) should be better described, especially regarding the risk assessment (legal limits - conformity/not conformity). 4. References: some references (Fatibello-Filho et al., Zen & Ting, seem not referred to benzoic acid analysis. Are they necessities? 5. Table 1 (heading): Analytical performances of RP-HPLC method. 6. Figure 1: Please show the entire chromatogram and check the unit of signal which should be AU and not mV (UV detector) 7. Please use mg kg⁻¹ for solid matrices (and mg L⁻¹ for liquids) • Please improve English language and spell-check the MS since many keying and grammatical errors are still present.	(lines,176,258,281,pages,6,9,10 respectively) Figures,3,4,5 were adopted using vertical bar type . (line 7. Page 1) Analytical performance (lines,60,65,72,75, page 2) mL (line 72,page 2) in electric mixer (Line 80 ,page 2) (BDH),VWR,UK, 3-6 replicates (Line91, page 3). The flow rate was1mL /min. (line 97, page 2) proprietary computer program for interactive scientific graphing and data analysis, Origin-8.1,from Origin labCorporation. (line 107, page 3) Concentration of standard used ranges from 5-100 mg/L. (line130,pge 5) Application to commercial samples (Line 143,page5) Our studied samples
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	These samples with high concentration of benzoic acid are within the permitted or legal limits . I think it is important ,since it indicates other possible analysis methods . (Line 127 ,page 4) Analytical performances of RP-HPLC method. (Line 103 page 3)  (line 137,..... page5.....and were necessary) mg/kg.
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