SDI Review Form 1.6

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**
Type of the Article	**Original Research Article**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.
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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments	There are some important weaknesses that make this MS not suitable for publication in IRJPAC in the actual form, in particular: - All obtained results cannot be considered reliable since they were acquired by an analytical method that was not validated. Several high concentrations of benzoic acid were obtained, also in food types for which no substantial confirmation is available in literature (it is very hard to justify values up to 180 mg kg^{-1} in food for infants). Considering the lacking validation (specificity tests were not carried out), to the absence of chromatograms related to these samples, it is very probable that several high concentrations registered in this monitoring were due to matrix interfering that caused "false positive" results. - The authors should complete the validation by evaluating at least method specificity, accuracy (precision and recovery) and ruggedness (under major changes: matrix to analyse). Then, they should re-elaborate all obtained data. - Data should be re-elaborated considering that LOD and LOQ values seem not correctly evaluated. The values reported in table 1 are referred to decreased concentrations in standard solution; the dilution factors (50 for solids and 5 for liquids) were not considered for LOD and LOQ calculation. For solid matrices, LOQ values would be too high. It is suggested to elaborate LOD and LOQ by following a different approach (Miller & Miller, 1993): LOD = 3.3sa / b and LOQ = 10sa / b, where sa is	

	the standard deviation of the intercept and b is the slope of the regression line obtained from the calibration curve. - There is the necessity to clearly distinguish between samples with no benzoic acid declared on the label from those with added benzoic acid. Only after this, a correct data elaboration, both for an evaluation on "natural" levels in different foodstuffs and for a contribution to risk assessment for samples containing this food additive, will be possible. - The number of analysed samples (32) is not adequate for a useful contribution to risk assessment; however, if the authors complete the validation procedure, the paper could be proposed as method optimization and validation and its application to commercial samples analyses. - There are too many grammatical and keying errors in this MS, proofing and editing by native English writer has been recommended.	

Minor REVISION comments	The authors have reported a very important data collection related to benzoic acid determinations in foods; however the graphic type adopted to report these data seems not appropriate since there are no trends but independent data. Concentrations should be reported as mg kg^{-1} for solid matrices and mg L^{-1} for liquids. Regarding juice samples, it is necessary to include an important reference to Gardner & Lawrence *J. Agric. Food Chem.*, 1993, *41*, pp 693–695 and their study about Benzene production from benzoic acid in the presence of ascorbic acid and a transition-metal catalyst. Some characteristics of HPLC method should be included: flow rate, total run time; moreover, it is strange that no centrifugation, no microfiltration (20 µm) and no pre-column were reported, especially considering some types of matrix (cheeses, cakes, etc.), how the column can maintain its performances injection-by-injection? Many references reported in Introduction, relating to analytical methods available in literature, seem not referred to benzoic acid determination, so, they seem not appropriate.	
Optional/General comments	After full validation of the analytical method and substantial re-elaboration of obtained data, this Paper could be reconsidered for publication.	

Note: Anonymous Reviewer