



SDI Review Form 1.6

PART 1:

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	2012_IRJPAC_2622
Title of the Manuscript:	Comparison of Biophysical and Radiological Responses of Bio-test objects to Pulsed and Continuous X- and Neutron-Irradiations

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PART 2: Review Comments

	Reviewer's comment	Author's comment <i>(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)</i>
<u>Compulsory</u> REVISION comments	This paper abounds in interesting information. However I am afraid the context is not appropriate up to the point to be misleading, especially concerning those questions related to clinical application of radiations. For example (in the introduction), neutron-therapy is nowadays totally abandoned, and if it is true that the few remaining "believers" (Seattle, Detroit and iThemba) prescribe it in 20 % of the cases, it is totally wrong to suggest that it is prescribed for 30% of (the whole) of oncologic patients and that it allows 20% enhancement of the treatment results. In other respects, it is not clear how devices of the type "Dense Plasma Focus" could be used in radio-diagnostic or radiotherapy taking into account their huge dose rate (dose power) that is by 10 orders of magnitude greater than those used in therapy. In addition, the dosimetry of such sources of radiations raises a problem by itself, question which is not approached here and which is one of the most important problem for (pulsed) high-LET radiations. In this view, we know that the dose accuracy required in radiation therapy is 3.5%, what withdraws much clinical interest to the biological results which are not related to absorbed doses of that precision. Still in the clinical field, the radiobiological effect of the concerned type of radiations have been indeed determined for biological systems and doses that are relevant to radio-diagnostic (i.e. chromosome aberration in lymphocytes), but not to radiation therapy. Besides, the material and method section is very vague and incomplete and - apart from aberrations - deals with biological system (bio-test	



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	objects) whose relevance is not clear. In conclusion I would say that this article is more a technical apologia for the Dense Plasma Focus (DPF) device than a scientific study of its technical-biological performances. Instead of providing a ragbag of information, I would suggest to the authors to focus themselves on a precise question and to bring information that are perfectly and totally documented in their relevant context.	
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		

Note: Anonymous Reviewer