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Journal Name:	Physical Science International Journal
Manuscript Number:	**Ms_PSIJ_27243**
Title of the Manuscript:	**Effective atomic numbers to some alloys at 662 kev by back scattering technique**
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.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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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	**Line 3- When we read "back scattering", we must read "backscattering".** **Lines 107 -109- The author or authors mention that "These values are the effective atomic number of alloys under study. The effective atomic numbers of these samples are also evaluated from known elemental concentration of the constituent elements using Eq. 2.". No equation it was found on the manuscript. If we have an equation 2 what is the equation 1? He/she or they need to clarify the sentence and explain which model was used to evaluate the effective atomic numbers.**	
Minor REVISION comments	Line 7- When we read "In Gamma backscattering technique there is no direct contact with the…", we don't need to writhe the word gamma with caps lock. In the line 6 the word gamma was writhe with small caps. Line 11- When we read "662KeV" it is important to have a word space between "662" and "keV". It is not necessary to mention at the abstract the atomic number of Pb, Zn and Sn because is redundant. Only the Pb as an atomic number of 82, only the Zn as an atomic number of 30 and only Sn as an atomic number of 50. Line 14- When we read "76 mmNaI(Tl) scintillator detector", we must read "76 mm NaI(Tl) scintillator detector". Line 19- When we read "Back Scattering" we must read "Backscatter or Backscattering or back-scattered". When we read "Effective Atomic number", we must read "Effective Atomic Number", starting the word "number"	

	with Caps lock. Line 40 – When we read "..available and easy to prepare their alloy in the laboratory..", we must read "available and easy to prepare their alloys in the laboratory", with the word "alloy" plural (alloys). Line 45- The melting points of Zn, Sn and Pb pointed by the Royal Society of Chemistry are 419.527°C (instead the mentioned 419ºC for Zn), 231.928°C (instead the mentioned 231ºC for Sn) and 327.462°C (instead the mentioned 327ºC for Pb), respectively. If the author or authors want to have an approximation to the unity of the metals melting points must be 420ºC for Zn, 232ºC for Sn and 327ºC for Pb. A scientific reference is needed for the melting points. Line 55 – When we read "for 600sec", we must read "for 600 sec", with a space word between "600" and the abbreviation "sec". Line 56- When we read "back scattering of gamma rays", we must read "backscattering of gamma rays". Lines 57 and 58- When the author or authors mention the calibration sources they need to mention at least on reference for the presented numbers. For example, they mention the calibration source of 57Co as emitting a radiation of 122 keV, but Enger et al. (2012) (Exploring (57)Co as a new isotope for brachytherapy applications) mention for the 57Co decays by electron capture to the stable 57Fe with emission of 136 and 122 keV photons. This mean that the mentioned energies for 57Co, 133Ba as 81 keV, 302 keV and 356 keV, 137Cs (662 keV), 22Na (511 keV) and 60Co (1173 keV & 1332 keV) need references. Another example that justifies the importance of the references is the fact that the most stable barium isotope, 133Ba, emits a whole range of gammas, some which can be readily identified with a sodium iodide detector, and many that require higher resolution to see.	

	Line 62 – When we read "the sources for the time of 600s, so", we must read "the sources for the time of 600s, so". The author or authors should adopt, in whole the work the same time unity symbol (sec or s). If they want to adopt the symbol (s for second), they must change the unit symbol of line 15 (600 sec) for (600 s). Line 66- When we read "600sec were analyzed to measure" we must read " 600 s were analysed". It is proposed the use of the symbol "s" for second instead of "sec" because the symbol "s" are more used then the abbreviation "sec". Line 75 – It is need a space word between the word peak and the words (with sample), instead of "peak(with sample)". Line 89- When we read "Fig.2" we must read "Fig. 2 ." with a word space between the abbreviation Fig. and the number 2. The space word between the number 2 and the dot must be removed saying this mention as "Fig. 2.". Line 129- The reference is an electronic source. In this case it is necessary to mention the accessed date (month, year). Line 148- The abbreviation "Int. j. eng. sci. invention.", must be writhed as "Int. J. Eng. Sci. Invention.". It is also important to review the rules for scientific references that start on line 126.	
Optional/General comments	Line 158- The SI unit symbol of gram is g. Gram can be also abbreviated as gm, but is less usual. It is proposed to change gm to g.	

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