



SDI Review Form 1.6

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	2013_IJBcRR_8179
Title of the Manuscript:	Antioxidant activity phenolics flavonoids and proanthocyanidins content of Senecio anteuphorbium
Type of the Article	Original Research Article

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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	In the present study, the authors determine the polyphenols, flavonoids and proanthocyanidins content from a poorly investigated plant species (<i>Senecio anteuphorbium</i>), which seems to be the merit of this work. However, there are some points that need to be clarified. a) Although the comparison with a calibration line obtained with a standard substance can be performed, the standard addition method is most suitable for the quantification of complex samples such as plant extracts. In fact, this is more evident in the quantification of total polyphenol content in which other reducing compounds not considered antioxidants (such as sugars and organic acids) can interfere positively. Studies have shown that the polyphenol content obtained in complex samples has shown different values when gallic and tannic acid are used as standard (see: Modified CUPRAC spectrophotometric quantification of total polyphenol content in beer samples using Cu(II)/neocuproine complexes . T. Nakamura , N. Coichev and H. D. Moya Journal of Food Composition and Analysis, (2012) 28 , 126-134;	a) Values obtained with both standards were approximately similar which suggests that gallic acid and tannic acid are both appropriate for this method.



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	Authors are invited to investigate the reasons for such consistent values as shown in Table 1. b) In page 3, item 2.6, the name of the method used is not correct. The original FRAP method uses the TPZT (2,4,6-triazine-tripyrityl) ligand (see: The Ferric Reducing Ability of Plasma (FRAP) as a Measure of “Antioxidant Power”: The FRAP Assay. Iris F. F. Benzie and J. J. Strain. Analytical Biochemistry (1996) 239, 70–76). The method used in the present work should be cited as "Reducing power activity assay" (see: Determination of in vitro antioxidant activities of different extracts of Marrubium parviflorum Fish et Mey. L. and Lamium amplexicaule from South east of Turkey. Onder Yumrutas and Saadet Demirors Saygideger. Journal Plants of Medicinal Research (2010), 4 (20), 2164-2172). c) In page 4, lines 125-127, 137-139, 146-148 do not discuss the results and would be better in the introduction. Finally, it would be interesting to investigate which compound (or compounds) is present in greater amounts in subclasses of polyphenolic compounds studied. For this, high performance liquid chromatography (HPLC) would be a useful tool.	b) Corrected c) I am trying to elucidate the value of phytochemicals found in this plant that's why I put these informations in order to introduce results
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Minor REVISION comments	a) Aiming to improve their study, the authors should emphasize in the introduction that there are few studies available to this plant species studied (see: Development of filter-pressure membranes from finely divided biomaterials derived from the <i>Launaea arborescens</i> plants, <i>Euphorbia echinus</i>, and <i>Senecio anthophorbium</i> for removal of metal cations Benhima, H.; Chiban, M.; Sinan, F.; Arrow, P. Recents Progres en Genie des Procèdes (2003), 89 (Integration des Membranes dans les Procèdes 2), 353 - 360, Two tricyclic sesquiterpenes from <i>Senecio anteuphorbium</i> and nails <i>Ursinia Bohlmann</i>, Ferdinand;. Ziesche, Juergen, Gupta, Rajinder K. <i>Phytochemistry</i> (1982), 21 (6), 1331-4, Naturally occurring terpene derivatives Part 218 New germacrene <i>Senecio</i> derivatives from species <i>Bohlmann</i>, Ferdinand;. Ziesche Juergen. <i>Phytochemistry</i> (1979), 18 (9), 1489-93). b) In page 2, line 57, should be clear from the text whether the extraction time was continuous or not Regarding the reagents used their source and purity should be mentioned. c) Regarding the plant material it must be specified which part of the plant was used (leaves, twigs or stems) because only mention aerial part is not enough (see: Analysis of the polyphenols content in medicinal plants based on the reduction	a) It's mentioned in the introduction b) Soxhlet extraction is known to be continuous c) Added : aerial parts (leaves and stems)
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	of Cu(II)/bicinchoninic complexes D.C. Marino, L.Z.L. Lacerda , J. Armando Jr., A. A. Ruggiero and H.D. Moya . Journal of Agricultural and Food Chemistry, (2009) 57 (23), 11061-11066). d) If the same equipment was used for all the absorbance measurements it should be mentioned in "Materials". e) There are too many significant figures in Tables considering phytochemical analysis.	d) Added : Absorbance was measured using an UV-visible spectrophotometer (Thermo electron corporation, Biomate 3) e) I don't understand this comment
<u>Optional/General</u> comments	a) Although some papers are considered "classics", the references cited in the text should be updated. b) In formal terms, the manuscript should be checked and corrected in the English point of view. In addition, there are probably typos. They should be reviewed.	a) I added some references b) Reviewed and corrected