



SDI Review Form 1.6

Journal Name:	American Chemical Science Journal
Manuscript Number:	Ms_ACSj_19342
Title of the Manuscript:	Effect of Infra-red drying on the stability of physicochemical properties, phenolics, flavonoids and on antioxidant activity of Allium sativum
Type of the Article	Review 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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



SDI Review Form 1.6

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		
Minor REVISION comments	IR ray drying is a common method for plants and its tissues. the paper describes the effects of this method on the properties of active substances as well as their activity. So it is important topic to be worked on. I support it to be published in the journal after make a major revision. 1, the equations in the text are not very clear to see, as well as the Fig.1. 2, the digital numbers in the context and tables are not significant. The number of initial sample weight is $64.88g \pm 0.12g$, the relative error is 1.85%, but the moisture is 1.3892, 1.2676, 1.1360, and 1.0465, which are best be expressed as 1.39; 1.27, 1.14; and 1.05. 3, the data in the tables may be modified for temperature, because the weight of substance may be changed with temperature change, as well as the balance. 4, The antioxidant activity was evaluated in vitro, but from the experimental section, I cannot find the in vitro procedure. 5, the drying rate is not defined in the context. This curves can be deal with exponential function, which can be used to extract the drying rate. 6, "Index term" may be changed into "keywords". 7, how to control the temperature in the experiments? in the figure 1, there is no temperature controlling system. As we known the IR lamp can control light intensity and time, not the the temperature, and with the time increase, the temperature will be increased dramatically. 8, the English expression is very difficult to understand, for example, evolution means progress, but it not the progress;	The manuscript has been reviewed. Please find below my answers to the comments received: 1. The equations and figure 1 were redone. I hope it is better now. 2. Initial moisture content of the fresh garlic of 64.88%, was calculated at 100g fresh matter. Whereas the final moisture content after drying were calculated at dry matter. Thus, I have corrected the unit of the initial moisture content. So we have the same unit and we will be able to compare. 3. The data in the tables are obtained at the end of drying at different temperature, i.e. after having a constant mass of samples. 4. The methods used to test the antioxidant activity are < in vitro > Method. To avoid any confusion, I reviewed the article and removed the term < in vitro > from the text. 5. Two types of curves make it possible to describe the evolution of the product during drying: — Moisture content (g water/g dry matter) (M) of the product, versus time (s): obtained directly starting from the recording of the mass in the course of time, — the drying rate (dM/dt): (gwater/g dry matter. s^{-1}) versus the moisture content (M), – sometimes called curve of Krisher. The drying rate is obtained by deriving (dM/dt) the



SDI Review Form 1.6

	The dimensionless moisture ratio is the normalized moisture not the ratio; and so on. Please read and correct them carefully. So I suggested to get a native speaker or company of English editor to correct all the text.	experimental points of moisture content, and there is no relationship between drying rate and fitting of curves. 6. “Index term” was changed into “keywords” 7. The device control the intensity of the infrared rays until having the instruction temperature, and if you look the characteristics of the device, you will see that we can vary the temperature of drying from 40°C until 160°C. 8. Moisture ratio=(M/M_0), and its not expressed in any unit hence it is qualified as a dimensionless number, this is why it is called the dimensionless moisture ratio
<u>Optional/General</u> comments		