

Manuscript Evaluation Form

PAPER TITLE	Review on Analytical Methodologies, Chemical and Therapeutic Perspectives of Curcumin: A Ubiquitous Natural Molecule
AUTHOR(S) NAME	Umang Shah, Deep Patel, Drashti Dalsania, Mehul Patel, Meghana Patel, Ashish Patel, Nilay Solanki, Swayamprakash Patel, Samir Patel

Sec. A: REFEREE'S ASSESSMENT (cross as appropriate)

Criterion	Excellent	Good	Fair	Poor
Originality of the Topic	x			
Technical Quality		x		
Importance in its Field	x			
Style & Overall Representation		x		
Readily Understandable	x			
Suitability for the Journal	x			
Adequate Illustrations or Drawings	x			
English Language		x		
Description	Yes	No	Comments/Suggestions	
Does the title represent manuscript's contents?	x			
Is the Abstract accurate and concise?	x			
Are the approaches/methods properly described?	x			
Are the conclusions and interpretations sound?	x			
Are the references properly cited?	x			
Is this a new/original contribution?	x			
Is it within the scope of the journal?	x			
Is the sample size adequate for the study?	x			
Overall the Paper is Rated:	(Excellent -----7----- Poor) 10 9 8 7 6 5 4 3 2 1			

Sec. B: REFEREE'S RECOMMENDATIONS**OTHER SPECIFIC CRITICISMS**

Accept with minor changes	<input type="checkbox"/>	Imperfect style	<input checked="" type="checkbox"/>
Accept with major changes	<input checked="" type="checkbox"/>	Too long	<input type="checkbox"/>
Reject in current form, but may be resubmitted	<input type="checkbox"/>	References incorrectly presented	<input type="checkbox"/>
Reject, with no resubmission	<input type="checkbox"/>	Typographical and Grammatical errors	<input checked="" type="checkbox"/>

PAPER TYPE: Research article	<input type="checkbox"/>	Review article	<input checked="" type="checkbox"/>	Letter article	<input type="checkbox"/>
Systematic review article	<input type="checkbox"/>	Case Report	<input type="checkbox"/>	Clinical Trial Study	<input type="checkbox"/>
Other	<input type="text"/>				

Have the following Reporting Guidelines been used by the authors in this study (if applicable)?

- **Randomized Controlled Trials** – CONSORT – Consolidated Standards of Reporting Trials
- **Observational Studies** – STROBE – Strengthening the Reporting of Observational studies in Epidemiology
- **Systematic Review of Controlled Trials** – PRISMA – Preferred Reporting Items for Systematic Reviews and Meta-Analyses
- **Study of Diagnostic accuracy/assessment scale** – STARD – Standards for the Reporting of Diagnostic Accuracy Studies
- **Case Reports** – CARE – for case reports

Yes	No
Yes	No
Yes	No
Yes	No
Yes	No

Does the manuscript comply for Ethical Guidelines (if applicable)?

- Has the author provided the approval from local institutional review board? Or does the manuscript conform to the Helsinki Declaration on human experiments in the “Methods” section?
- Has the approval of institutional ethics committee been obtained by the author regarding experimentation on animals or other species? Is the name of the species mentioned in the title abstract and “Methods” Section of the article?
- In case of experimentation on human subjects, has informed consent been taken?

Yes	No
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Yes	No
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Yes	No
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Confidential Comments to the Editor (not for Transmission to Authors):

This study presents phytochemical, analytical, and pharmacological overview of curcumin. The references are properly cited and the article is generally well written and suitable for publication after some revision.

Review of the article entitled Review on Analytical Methodologies, Chemical and Therapeutic Perspectives of Curcumin: A Ubiquitous Natural, by Umang Shah, Deep Patel, Drashti Dalsania, Mehul Patel, Meghana Patel, Ashish Patel, Nilay Solanki, Swayamprakash Patel, Samir Patel

This study presents phytochemical, analytical, and pharmacological overview of curcumin. The references are properly cited and the article is generally well written and suitable for publication after some revision.

The English language should be improved.

On page 2, in the abstract, line 6, state
This review article specifies, instead of précis

On page 3, delete dot after pathways
Move heading 1. Introduction to the next page

On page 4, paragraph 1, line 3, state demethoxy curcumin
Line 4, bis-demethoxycurcumin should be divided, use italic for *o*-methoxy phenolic groups
Line 5, use italic and place in the same row β -dicarbonyl moiety
Paragraph 2, line 2, use the first capital letter for Alzheimer's disease, delete dot after it and continue the sentence with and showed results
Line 3, pseudo tumor can be divided
Move heading 2. to the next page

On page 5, paragraph 1, line 4, use singular for turmeric extract
Lines 5 and 6, place in the same row (1,7-bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione), preferably
Paragraph 3, line 2, state demethoxycurcumin and bis-demethoxycurcumin

On page 6, the quality and resolution of Figure 1 can be improved, font of letters can be enlarged. Put dots at the end of the legends of Figures 1 and 2.
Move heading 3. to the next page

On page 7, paragraph 1, lines 3 and 4, when listing methods for determination of curcumin, use the same way of labeling, either capital or small letters
Paragraph 2, lines 3 and 4, the next sentence should be improved, for example as follows
As Curcumin is fluorescent active compound fluorometric method for its quantification was also possible.
Place Table 1, as close as possible to its first mention, after the second paragraph on this page
Paragraph 3, lines 2 and 3, the next sentence should be improved as follows
Powder of turmeric extracts in blood plasma was used to separate curcumin using different columns as stationary phase, among which C₁₈ was frequently used column.
Line 9, improve the last sentence of this paragraph, state in one of the LC-MS/MS methods
Line 10, delete were seen with and state the detection wavelength was in the range of 200 to 500 nm

On page 8, mention Table 2 after the first paragraph
Paragraph 2, lines 4 and 5, state hexane: chloroform: methanol: water (5/10/7.5/2.5, v/v/v/v), 2 L in total
In Table 1, state method correctly
UV Visible Spectrophotometry
Correct spelling NLC formulation
Improve presentation and alignment of Table 2
On page 13, place dot at the end of the legend of Figure 3

On page 14, within Figure 4, state Heating over the flame for 30 min
Complete structural formula of the enol form of curcumin, bonds between carbon atoms 7 and 8 should be unsaturated

On page 15, line 4, delete comma after condensations
Put dot at the end of legend of Figure 5

On page 16, line 4, correct spelling nucleophile attack, use italic for *n*-butylamine
Line 5, use italic for *n*-tributyl borate

On page 17, structural formula of curcumin should be completed
Place in the same row 4-acetyl-5-oxo-hexanoate, preferably

On page 19, paragraph 1, line 4, use the first capital letter for Soxhlet, as well as in the rest of the manuscript
For example, paragraph 2, line 1, Soxhlet extraction
Line 1, separate with commas, followed by column chromatography,
Paragraph 3, line 1, use italic for *n*-hexane
Line 2, Soxhlet apparatus

Use the past tense in the entire paragraph, if it begins with the past tense

For example, the second sentence of this paragraph should be

Then, 310 ml of methanol was heated in the flask, and the vapors were condensed in the condenser.

Grammar of the sentences in lines 6, 7, 8 and 9 of this paragraph, should also be improved, for example

After three days, the solvent was evaporated by a rotary evaporator. To this, 100 ml of toluene was added, and the solution was poured into a separating funnel, the extract was basified with 100 ml of 2M NaOH and shooked.

Line 10, filtrate was extracted

On page 20, paragraph 2, line 2, with the help of sonication and solvents used, such as ethanol and water in the process

Paragraph 3, line 3, add one space after USA's Environmental Protection Agency

Line 6, 20 ml of ethanol

Lines 7 and 9, ultra-sonication can be divided, place 3000 rpm in the same row

On page 21, paragraph 1, line 8, use the first small letter for internal standard

Paragraph 2, line 1, use plural for

All the extraction products of curcuminoid were analyzed

Line 4, use comma for (30:70, v/v)

Line 7, were determined

On page 22, paragraph 1, line 1, for the treatment of turmeric, in which

Line 3, was used

Line 4, place in the same row 20 min

Line 8, and maintained at 80 °C

Line 13, correct spelling, methanol extract

Line 14, place in the same row 0.45 µm

maintained at +4 °C

Paragraph 2, line 4, use the past tense, were 33°C and 425 nm

On page 23, paragraph 1, line 6, (1:1:1:1, v/v/v/v)

Line 7, (4:1:5, v/v/v)

Line 10 and 12, correct spelling, eluent

Line 21, 2ml of ethyl acetate

On page 24, paragraph 1, lines 1 and 2, hexane: ethyl acetate: ethyl alcohol (8:4:1, v/v/v)

Paragraph 2, line 1, Wang and co-workers worked, instead of are worked

Lines 3 and 5, use italic and the first small letter for

trans-6-(4'-hydroxy-3'-methoxyphenyl)-2,4-dioxo-5-hexenal

On page 26, paragraph 2, line 3, add one space after a photodiode-array

On page 27, paragraph 1, line 3, add one space after reference number [70]

Paragraph 4, line 5, add one space after [74]

On page 28, quality of the Figure 9 can be improved, resolution, structural formulas and the font of letters can be enlarged

Place dot after the legend of this figure

On page 29, paragraph 1, line 1, use plural for cancers
 Line 2, use italic for *in vivo*, as well as *in vitro*
 Paragraph 2, line 6, intra-molecular can be separated

On page 30, paragraph 1, line 2, pro-fibrotic can be separated
 Line 4, sub-chronic can be separated
 Line 6, dimethyl-nitrosamine
 Paragraph 2, line 4, use italic for *in vitro* and *in vivo*

On page 31, paragraph 1, line 2, use the first small letters and correct spelling,
 brain-derived neurotropic factor
 Paragraph 2, line 12, use subscript and add one space after O₂

On page 32, paragraph 2, line 1, up-regulation can be divided
 Paragraph 3, line 3, Intra-peritoneally can be separated

On page 33, add one space after 40 µM
 Paragraph 3, line 2, dimethyl-nitrosamine should be separated

On page 34, paragraph 2, line 1, state acts effectively
 Line 4, nitro-tyrosine can be separated
 Improve grammar in the next sentence, for example,
 Curcumin also trigger the activity of antioxidant enzymes
 Line 5, bio-conjugates

On page 35, paragraph 1, line 2, correct spelling, deregulation

On page 36, paragraph 1, line 2, correct spelling is spectrofluorimetry
 Line 7, use the first capital letter and put comma after Soxhlet,
 Lines 11 and 12, use italic and the first small letter and place in the same row
trans-6-(4'-hydroxy-3'- methoxyphenyl)-2,4-dioxo-5-hexenal, preferably
 Paragraph 2, line 2, which has shown
 Paragraph 2, line 7, use comma before, such as

Add pages to references 3, 11, 42, 73 and 76
 Add the last page number to references 4, 6,7, 8, 26, 66
 Add issue numbers to references 6, 10, 11, 26, 28, 29, 37, 38, 43, 55, 57, 66, 76, 77 and 89
 Add volume to references 6 and 11
 Add journal name to reference 24

Format the entire article according to the style of the journal.

FIELD OF EXPERTISE OF REFEREE: Materials, chemistry, medicinal and pharmaceutical chemistry, chemical technologies, nanotechnologies, biomedical engineering, spectroscopy

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Tamara Jovanovic, March 01, 2022
SIGNATURE OF REFEREE / DATE