Current Pharmaceutical Analysis

Manuscript Evaluation Form

Editor-in-Chief: Anastasios Economou, Department of Chemistry, Laboratory of Analytical Chemistry, University of Athens, Athens, Greece

	A Comparative Chemometric Study for Quantitative Determination of Duloxetine Hydrochloride in presence of its Toxic Impurity 1-Naphthol
AUTHOR(S) NAME	Basma H. Anwar, Nessreen S. Abdelhamid, Maimana A. Magdy, Ibrahim A. Naguib

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	Х						
Style & Overall Representation				X			
Readily Understandable	Х						
Suitability for the Journal	Х						
Adequate Illustrations or Drawings	Х						
English language				X			
Description			No	Commo	ents/ Sugges	tions	
Does the title represent manuscript's contents?		х					
Is the Abstract accurate and concise?		Х					
Are the approach/ methods properly described	?	X					
Are the conclusions and interpretations sound?		X					
Are the references properly cited?		х					
Is this a new/ original/ contribution?		X					
Is it within the scope of the journal?		Х					
Overall the Paper is Rated:	(Excell 10 9		7	6	5 4	Po	oor) 1

Sec. B: REFEREE'S RECOMMENDATIONS		OTHER SPECIFIC CRITICISMS	
Accept with minor changes	X	Imperfect style	
Accept with major changes		Too long	
Reject in current form, but may be resubmitted		References incorrectly presented	
Reject, with no resubmission		Typographical and Grammatical errors	х
PAPER TYPE: Research article	Review article	Letter article	

BENTHAM SCIENCE PUBLISHERS:

Confidential Comments to the Editor (not for Transmission to Authors): This article is generally well written, within the scope of the journal and suitable for publication after some revision.

Comments for the Authors (continue on another sheet, if necessary):

Review of the article entitled

A Comparative Chemometric Study for Quantitative Determination of Duloxetine Hydrochloride in presence of its Toxic Impurity 1-Naphthol, by Basma H. Anwar, Nessreen S. Abdelhamid, Maimana A. Magdy, Ibrahim A. Naguib

In this study, three multivariate chemometric models, called classical least squares (CLS), partial least-squares (PLS) and linear support vector regression (SVR) were developed and compared among each other for the quantitative determination of duloxetine hydrochloride (DUL) in the presence of its toxic impurity 1-naphthol in raw materials and pharmaceutical dosage form, by using the UV spectral data. The obtained results indicated that compared to the CLS and PLS models, the SVR model gives the best results regarding to the accuracy with a lower prediction error and better generalization ability. However, the CLS and PLS models were found to be simpler and faster in usage and management, for routine analysis of such simple mixtures. Moreover, the three models can save time, money and equipment rather than the reported HPLC methods.

This article is generally well written, within the scope of the journal and suitable for publication after some revision.

The English language, grammar and spelling have to be improved at some places.

In the title of the article use the first capital letter for Presence

In the Abstract brackets are not necessary for 1-naphthol

In Keywords, UV can be added before spectrophotometry

In the Introduction, the correct spelling is British Pharmacopeia

On page 2, state: There are two HPLC chromatographic methods for detection of DUL in the presence of its common impurities, including 1-naphthol, which were reported [13, 14].

with a quartz cell of 1 cm path length

Use plural in the entire heading 2. Materials and reagents

Use capital letters for Eva Pharma Company

1-Naphthol was bought from El Nasr Company for Pharmaceutical Chemicals

The second sentence of the last paragraph on this page should also be in the Past tense: Methanol and ethanol of HPLC grade were acquired from Fischer, UK.

Move the last subheading to the next page.

On page 3, state: Equal amounts of 0.1 mg of DUL and 1-naphthol were accurately weighed into two separate 100-mL volumetric flasks

BENTHAM SCIENCE PUBLISHERS:

Add comma before, then the volume was completed with methanol to the mark

Equal volumes of 10 mL of DUL and 1-naphthol stock standard solutions were accurately transferred into two separate 100-mL volumetric flasks

State: ranging between 1 -15 µg/mL

DUL exhibited linearity between 2-14 μ g/mL at its λ_{max} of 229 nm.

Place in the same row 3.8 µg/mL of 1-naphthol

Place in the same row 1-naphthol, in the fourth paragraph of this page, as well as on page 5

An amount of 60 mg of DUL was accurately weighed and transferred into a 100 mL volumetric flask to which 75 mL of methanol was added.

On page 4, replace the abbreviation PLS, instead of PJS, in the third paragraph

In the fourth paragraph, delete repeated word by

Move to the next page the last subheading.

On page 5, delete the second point at the end of the second sentence.

The correct spelling is regularization constant, which determines

≊-Insensitive loss function was applied and used in this study to optimize the SVR model.

Use comma for, which was shown in Fig. 2

On page 6, use two words for over-fitting; the three models show a better chance to save time, money and use less equipment

Use one space between the adequate words and the numbers of references, as well as one space between the numbers and units of measure in the entire manuscript.

State the complete term and the abbreviation at the first place where it appears in the manuscript, in the rest of the text use either the abbreviation or full term.

Table captions should begin with the capital letter, including Table 1: The 3 level 2 factor and

Table 2: The analysis of the results

Correct the alignment in Table 1

Place the words, such as Taken, Found and RSD in one row and units of measure, such as $\mu g/mL$ or % in the same, second row. Place complete numbers with two decimals in the same row.

In Table 3, state the reference in superscript with the adequate letter and the entire reference in footnote The quality of Figures 1 and 2 can be improved, the resolution increased.

Put the points after the legends of Figures 1, 2 and 4.

Format the entire manuscript, including references, according to the style of the journal.

In the first reference state The British Pharmacopeia, correct typographical error, London

Check the numbers of volumes, issues and pages, as well as the years of publication in some references and add some of these data where it is necessary.

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

Name & Affiliation of referee: Tamara Jovanovic, Department of Biomedical Engineering, Faculty of Mechanical Engineering, University of Belgrade, Kraljice Marije 16, 11120 Belgrade, Serbia

Dr Tamara Jovanovic / March 25, 2019

SIGNATURE OF REFEREE / DATE

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