

Cleanup. Editorial comments for cleaning up the English of scientific manuscripts for publication.

By Dr. Edmond W. Holroyd, III. Based on 6 manuscripts submitted by students of 2023 in University of Monastir, Tunisia

For many decades I have had to clean up my own manuscripts for publication. I have also been a reviewer of manuscripts produced by others, and occasionally I continue to do so. Most of the advice offered here is likely to be valid, though I do make mistakes and have my own opinions.

General advice:

It is recommended that manuscripts be composed in one of the standard word processors. I use WordPerfect (.wpd) for most things and prefer some of its tools. I sometimes use an old version of Microsoft Word (.docx), which is more common. I am not using their Office 360 which needs an annual subscription fee.

When submitted to me for editorial corrections, I like manuscripts in .docx and .wpd and .txt formats. I may add line numbers if they are not present, so that I can identify the precise locations of my corrections. I do not like .pdf formats because old PDF readers that I use do not allow modifications that I might insert.

Word processors have a **spelling checker** which compares typed words against an internal dictionary word list. It will highlight (underline, red color) the questionable word. That list cannot be trusted to include technical and scientific words. If you know a correct spelling of a word in your context you can usually append it to your processor's dictionary. The processor may suggest a correct spelling or a substitute word. Do not always accept such suggestions, but verify them for your context. Look up the spelling in a book dictionary or other reliable source, checking the meaning of that word. Always pay attention to the marks of the spelling checker and evaluate its work. It is often that a spelling needs to be corrected.

Warning: It is easy to type a spelling that is incorrect in your context but is valid in another situation. The spelling checker will not indicate a likely error. (Example: to, two, too) The manuscript must be proof-read by yourself first and then by someone else to catch such errors.

Some word processors will have a **grammar checker**, perhaps underlining a word or series of words in green as questionable. It may catch cases of singular/plural errors, past/present errors, subject/verb missings, and sentence structures. When that happens, study what it seems to be indicating and make corrections or adjustments if needed. The passive case for much scientific writing may trigger a grammar checker which is not trained such a writing style. So not all suggestions from the grammar checker will be valid for your context.

Spaces: There should be only a single space between words. Manuscripts are usually composed with "left justification"; all lines start at the left margin. "Right justification" is not used because all lines would end at the right margin and the left ends would have a variety of starting positions. "Full justification" means that a line (not the sentence) starts at the left margin and ends at the right margin. To accomplish this extra spaces are placed between words and some words may be stretched or shrunk in size. Full justification may look good in the final printed published version, but it is not good while composing the manuscript. Instead, always compose the manuscript with "left justification". That way double-space errors are more easily spotted.

Replace: Word processors usually have an Edit feature that allows a sequence of characters (letters, numbers, symbols, punctuation) to be replaced by correct characters. It may also have a global replacement option allowing all instances of that sequence to be replaced. This can be useful, but dangerous. An easy correction can be to replace all double-spaces by single-spaces. It can be run several times to catch and correct cases of several spaces. Global replacement of spelling errors can be dangerous if the changed word is a fragment of a larger word. If so, it is best to change each by itself.

Spaces and Punctuation: Several types of punctuation should not be preceded by a space: comma, period, colon, semi-colon. Do a global replacement, such as replace space-comma by comma, everywhere. Do not do so with opening brackets, (, [, { because they will usually have a space in front of them, except in equations.

Simplify: Sometimes it is helpful to break down a complicated sentence to the basic subject, verb, object by ignoring the extra phrases and modifiers. The simplicity may reveal an error of some type. There will be examples below where I replace some words with "..." to more easily reveal a sentence structure.

Below are classified (in **bold black**) editorial corrections made for 6 actual manuscripts. The context words will be in black. The words around the errors will be in **red**. The corrections will be after the ">" with the words around the corrections in medium dark **green**. I will be coloring words that need no correction so that error and its correction are more visible. Explanations will be in **blue**. Note the frequency of particular corrections and learn from them. In some cases I will illustrate a common error and its correction and indicate in square brackets how many times I found that style of error, like [8 times]. Doing so consolidates this report, saving space and increasing readability. Pay particular attention to the frequency of such errors because it may help to avoid those errors in your own manuscript.

Rather than try to reproduce equations and certain strings of words I will substitute (equation), (variable) or a similar summary into the quote. To be brief, my explanations may not be sentences or have the usual articles.

Simple corrections

Excess spaces (corrected by global replacements)

In one manuscript I initially did these replacements, finding the indicated number of such errors: [space-comma by comma - 9 times], [space-period by period - 5 times], [space-colon by colon - 17 times], [space-space by space - 48 times, then 5 times, then 3 times]

Spelling error detected (a publication editor may have a spelling preference)

accuray > accuracy

Mixt > Mixed

Hperparameters > Hyper-parameters

nonsingular > non-singular (suggested by spelling checker) [6 times]

modeled > modelled (suggested by one spelling checker but refuted by another)

fulfills > fulfil (suggested by Word spelling checker, but both forms acceptable by this spelling checker) [3 times]

unkown > unknown (found by spelling checker) [2 times]

prameters > parameters

spectrun > spectrum [2 times]

Spelling error not detected (including to, two, too, etc.; or a correctly spelled word in a wrong context)

“... mechanism versus **to other** processes ...” > “... mechanism versus **other** processes ...” Perhaps the author meant “two other”, but removing the “to” seems to be appropriate.

“Then **its** redshifts until a temperature close to T_{deloc} .” > “Then **it** redshifts until a temperature close to T_{deloc} .” Also a subject is needed.

“... supposed to be the **aim** reason for this blueshift.” > “... supposed to be the **main** reason for this blueshift.”

American vs British spellings (depends on where the journal is published)

behavior - behaviour

favor - favour

favorite - favourite

color - colour

Repeated word

“... affect **the the** systems ...” > “... affect **the** systems ...”

“... interval of the ML **for for** reaching ...” > “... ML **for** reaching ...”

“... and **no peak** secondary peak is observed.” > “... and **no** secondary peak is observed.”

Common errors

Singular/Plural (English requires that subject and verb forms are matched for singular or plural content.)

“... cause health problems to **human** and **animal**.” > “... cause health problems to **humans** and **animals**.” Or those words may be left as adjectives if followed by a plural noun, such as cases or patients.

“The obtained finding **demonstrate** the effectiveness ...” > “The obtained finding **demonstrates** the effectiveness ...” Singular

“... the authors developed **an** improved **classifiers** based on ...” > “... the authors developed improved **classifiers** based on ...” OR “... **an** improved **classifier** ...”

“... solutions for **a** climatic variety **conditions**.” > “... solutions for climatic variety **conditions**.” Conditions must remain plural in this context because “variety” means many of them.

“... at least one current-carrying **conductors** and ...” > “... at least one current-carrying **conductor** and ...”

“... the variables ... **undergoes** a diminution of ...” > “... the variables ... **undergo** a diminution of ...”

“... the output voltages **undergoes** a minor increase, ...” > “... the output voltages **undergo** a minor increase, ...”

“... while (variable) **witness** a decrease ...” > “... while (variable) **witnesses** a decrease ...”

“(variable1, variable 2 and variable 3) **refers** respectively ...” > “(variable1, variable 2 and variable 3) **refer** respectively

“where (variable1, variable2 and variable 3) **stands** for ...” > “where (variable1, variable2 and variable 3) **stand** for ...”

“where (variable) **denote** the known ...” > “where (variable) **denotes** the known ...”

“... of the orthosis (variable) **attain** the desired position q.” > “... of the orthosis (variable) **attains** the desired position q.”

“Substituting Eqs. (11) and (13) in Eq. (18) **result** in:” > “Substituting Eqs. (11) and (13) in Eq. (18) **results** in:” It is singular, even though two substitutions are made. It helps to make a skeleton sentence or phrase: “Substituting ... results in:”

“The band structure of GaAsBi QD/GaSb including the strain effect **were** also calculated.” > “The band structure of GaAsBi QD/GaSb

including the strain effect **was** also calculated.” The subject, band structure, is singular. Alternatively, if “including” is changed to “and”, then there is a double subject and “were” can be retained.

“... quenched for **temperature** beyond 100K.” > “... quenched for **temperatures** beyond 100K.” There are many warmer temperatures.

“... in low temperature **range.**” > “... in low temperature **ranges.**” There are many ranges of low temperature.

“... at **temperature** lower than 658°C.” > “... at **temperatures** lower than 658°C.” > There are many colder temperatures.

“... should melt in the **temperature** above 658°C ...” > “... should melt in the **temperatures** above 658°C ...” There are many warmer temperatures.

“... the PL intensity ..., which **indicate** that ...” > “... the PL intensity ..., which **indicates** that ...”

“... the density of the small QDs **have** to be larger than ...” > “... the density of the small QDs **has** to be larger than ...” The subject is the singular “density” rather than the plural “QDs” (Quantum Dots).

“... (as shown in **Figure** 1 and 2).” > “... (as shown in **Figures** 1 and 2).” There are two figures.

“... phase diagram **show** a liquid miscibility gap ...” > “... phase diagram **shows** a liquid miscibility gap ...” Singular

“... segregation and phase separation processes ... **has** a strong effect ...” > “... segregation and phase separation processes ... **have** a strong effect ...” Plural

“... where L_{ij} **is** the interaction parameters ...” > “... where L_{ij} **are** the interaction parameters ...” There are many L_{ij} terms in the equation.

“... liquid solution ... between the **constituent.**” > “... liquid solution ... between the **constituents.**” A solution has plural ingredients.

“... of Al-As-Bi alloys could be affected by the **constituent.**” > “... of Al-As-Bi alloys could be affected by the **constituents.**” An alloy has plural ingredients.

“... multiple quantum **well** (MQW) ...” > “... multiple quantum **wells** (MQW) ...” “multiple” makes it plural.

“... a series of experiments **have** been performed.” > “... a series of experiments **has** been performed.” The subject is “series” which is singular even though referring to plural experiments, so the verb needs to be singular.

“... such as lasers and photovoltaic **cell.**” > “... such as lasers and photovoltaic **cells.**”

“... any change of the ... of the active layer **seem be** of importance.” > “... any change of the ... of the active layer **seems to be** of importance.” The subject is “change” which is singular. (The verb also needs a change.)

“The pattern **exhibit** most intense ...” > “The pattern **exhibits** most intense ...”

“This result excludes ... and **advance** the idea ...” > “This result excludes ... and **advances** the idea ...”

Articles (a, an, the) [Perhaps if le, la, les are used in French, an appropriate article is expected in English. In quick informal English speech articles are sometimes omitted.] “A and an” are used for general things and “the” for a specific thing.

“... the data sheet of **manufacturer** stated ...” > “... the data sheet of **the manufacturer** stated ...”

“Indeed, **a** ML is applied to ...” > “Indeed, **an** ML is applied to ...” When speaking, the “M” sound is “em” which starts with a vowel, thereby justifying the “n” in “an”.

“... is **a** ML algorithm ...” > “... is **an** ML algorithm ...”

“... to extract features through **PCA** model ...” > “... to extract features through **the PCA** model ...”

“... to the grid **a** three-phase coupling ...” > “... to the grid **a** three-phase coupling ...” Italics removed.

“... the nano-holes on **GaAs** surface, ...” > “... the nano-holes on **the GaAs** surface, ...” Use “the” if a specific surface, or use “a” if a general surface.

“... thermal quenching **of** as-grown sample ...” > “... thermal quenching **of the** as-grown sample ...”

“... thermal stability **of** as-grown sample ...” > “... thermal stability **of the** as-grown sample ...”

“... optical qualities **of** GaAsBi layer because ...” > “... optical qualities **of the** GaAsBi layer because ...”

“The decrease **of** FWHM ratio shows that ...” > “The decrease **of the** FWHM ratio shows that ...”

“... resulting **from** inter-diffusion process.” > “... resulting **from the** inter-diffusion process.”

“... using **little** Bi flux ...” > “... using **alittle** Bi flux ...” I questioned the intent of the author. “Using little” means minimizing its use. “Using a little” means using a small amount rather than none.

“... direct in AlAsBi [17]. **While** Al-As-Bi system **prove** challenging ...” > “... direct in AlAsBi [17]. **The** Al-As-Bi system **proved** challenging ...” Incomplete sentence started with “While”, so it is deleted. An article is needed. Past tense is needed to match previous sentence.

“Calculations **of** phase diagram ...” > “Calculations **of the** phase diagram ...”

“... a ternary interaction parameter in **ternary** Al-As-Bi system ...” > “... a ternary interaction parameter in **a ternary** Al-As-Bi system ...” Match previous article.

“The phases considered **for** thermodynamic ... prediction ...” > “The phases considered **for the** thermodynamic ... prediction ...”

“**For** calculation of the phase diagram ...” > “**For the** calculation of the phase diagram ...”

“The phase diagram **of** Al-Bi system ...” > “The phase diagram **of the** Al-Bi system ...”

“The areas surrounding **binodal** curve correspond to ...” > “The areas surrounding **the binodal** curve correspond to ...”

“... for **same** Bi composition.” > “... for **the same** Bi composition.”

“... structure **with** 12 nm GaAsBi well ...” > “... structure **with the** 12 nm GaAsBi well ...”

“... energies in 12 nm **of** GaAsBi well ...” > “... energies in 12 nm **of the** GaAsBi well ...”

“... quantum size **of** GaAsBi layer ...” > “... quantum size **of the** GaAsBi layer ...”

“... **between** p-GaAs cap layer **and** GaAsBi intrinsic ...” > “... **between the** p-GaAs cap layer **and the** GaAsBi intrinsic ...”

“... the growth **of** GaAsBi active region ...” > “... the growth **of the** GaAsBi active region ...” [2 times]

“... while **growth** temperature ...” > “... while **the growth** temperature ...”
 “...structures **with** different QW thickness ...” > “...structures **with a** different QW thickness ...”
 “... the temperature **of** buffer or capped layer.” > “... the temperature **of the** buffer or capped layer.”
 “... the optimal condition **of** III/V ratio ...” > “... the optimal condition **of the** III/V ratio ...”
 “... this distortion **of** lattice parameter ...” > “... this distortion **of the** lattice parameter ...”
 “... clearly visible **in** PR spectrum.” > “... clearly visible **in the** PR spectrum.”
 “Analysis **of** PR spectrum ...” > “Analysis **of the** PR spectrum ...”
 “... formation **of** metallic cluster ...” > “... formation **of a** metallic cluster ...”
 “... metallic clusters create **local** Schottky junction ...” > “... metallic clusters create **a local** Schottky junction ...”
 “... of ~50 nm. **HR-XRD** pattern of this structure is shown ...” > “... of ~50 nm. **The HR-XRD** pattern of this structure is shown ...”
 “The pattern exhibits **most** intense ...” > “The pattern exhibits **the most** intense ...”
 “... structure obtained **by** alternating injection ...” > “... structure obtained **by the** alternating injection ...”
 “... structures grown **by** conventional growth method.” > “... structures grown **by a** conventional growth method.”

Pointers

Capitals (in Fig., Tab., Eqn., Sec. and their full words)

“... **section** 3.” > “... **Section** 3.”
 “... in **figure** 4 ...” > “... in **Figure** 4 ...” [11 times, with various numbers and introductory words]
 “... in **equation** 2) was ...” > “... in **Equation** (2) was ...” Also note opening parentheses to match referenced equation.
 “... of the **equation** (3).” > “... of the **Equation** (3).”
 “... in **Fig.1.c** ...” > “... in **Figure 1.c** ...”

Numbering (in Fig., Tab., Eqn., Sec. and their full words; make sure that the number is correct!)

“As shown in **Figure** the concept ...” > “As shown in **Figure 8** the concept ...” The Figure number was missing.
 “... of **Figure 4** shows ...” > “... of **Figure 2** shows ...” Figures 3 and 4 have not yet been introduced and the discussion seems relevant to the contents of Figure 2.
 “As an example, **the figure 1** shows ...” > “As an example, **Figure 2** shows ...” Wrongly numbered.
 “**Figure 4.a** shows ...” The two graph panels of Figure 4 are not labeled a and b, not to be confused with A, B, C labels on the three curves. The figure legend does describe them separately.
 Table 1 is missing from manuscript.
 Table 2 is missing from manuscript.

Abbreviated or full (may be determined by the editor)

“**Fig.** 5” > “**Figure** 5” [4 times, with various numbers]
 “... in **Fig.1.c** ...” > “... in **Figure 1.c** ...”

Capitals or not

Acronyms

These classifiers include **KNN, DT, RF, SVM, NB and DA**. > These classifiers include KNN, DT, RF, SVM, NB and DA, **as named in Section 1 and described below.** These are abruptly listed and subsequently described. Otherwise define the acronyms here.
 PL is first seen on line 54. It should be defined earlier in line 51 as “... photoluminescence (**PL**) intensity ...”
 PR is first seen on line 157. It should be defined earlier in line 158 as “... photoreflectance (**PR**) spectroscopy.”

Capitalize all words defining an acronym, if some are capitalized

“3.1 Robust **Non singular Terminal sliding mode control** (**RNTSMC**)” > “3.1 Robust **Non-singular Terminal Sliding Mode Control** (**RNTSMC**)” This is a section title line.
 “3.2 Adaptive **Non singular Terminal sliding mode control**(**ANTSM**)” > “3.2 Adaptive **Non-singular Terminal Sliding Mode Control**(**ANTSMC**)” This is a section title line. Also notice the “C” appended to the acronym to match the previous acronym.

Remove Capitalization, especially if this is not the start of a sentence

“... of aflatoxin B1 and **It** is responsible for ...” > “... and **it** is ...”
 “... within PV **systems**. **Where** the photovoltaic ...” > “... **systems where** ...” The following explanation was not a sentence.
 “Similarly, **For** the ANN ...” > “Similarly, **for** the ANN ...”
 “(variable) **Corresponds** to ...” > “(variable) **corresponds** to ...” The Greek variable with subscripts is the start of a sentence.
 “(equations) **Whereas** the discontinuous command ...” > “(equations) **whereas** the discontinuous command ...” This is a continuation of the same sentence started by that Greek variable but offers the definition of a second Greek variable.
 “... is proposed as (24). **Then**, the tracking error ...” > “... is proposed as (24) **then** the tracking error ...” Not the start of a new sentence.

Also, the period and comma are removed.

“... stronger (As shown in ...” > “... stronger (as shown in ...” The “as” does not start a new sentence.

“QDS” > “QDs” QD was introduced as Quantum Dot, so QDs represents its plural. Consistency is needed. (4 times)

“LQDS” > “LQDs”

“... of the As-grown ...” > “... of the as-grown ...”

“The ... Multiple quantum well ...” > “The ... multiple quantum well ...” The style has already been introduced in “a single quantum well”

“(equation) And (equation).” > “(equation) and (equation).” “And” does not start a new sentence.

“Given the fact that: (equations) (16) The NTS surface (15) can be rewritten:” > “Given the fact that: (equations) (16) the NTS surface (15) can be rewritten:” “The” does not start a new sentence.

Basic sentences

Subject or verb needed

“Considering a new data matrix ...” > “Consider a new data matrix ...” The following words lacked a subject and verb.

“Next to predict ...” > “The next step is to predict ...” Both a subject and verb were missing.

“... the lower energy peak (E2=1.00 eV) related to large ...” > “... the lower energy peak (E2=1.00 eV) is related to large ...” Verb needed.

“... effect can be related to ... and/or may be to the fluctuation of ...” > “... effect can be related to ... and/or may be related to the fluctuation of ...” Verb needed.

“... is found to drop slowly while decreases rapidly with ...” > “... is found to drop slowly while it decreases rapidly with ...” Subject needed.

“... which presents larger activation energy and extracted from ...” > “... which presents larger activation energy and is extracted from ...” Verb needed.

“... the thermal annealing leading to reduce the dispersion of ...” > “... the thermal annealing helps to reduce the dispersion of ...” The sentence wants a verb, one with a different meaning.

“Phase diagram data for ... systems are with a liquid miscibility gap are quite common.” > “Phase diagram data for ... systems with a liquid miscibility gap are quite common.” The first “are” is deleted to avoid a double verb.

“This makes the growth of III-V-Bi alloys is challenging ...” > “This makes the growth of III-V-Bi alloys challenging ...” “Makes” is already the main verb, so delete “is”.

“The phase diagram of Al-Bi system involving the liquid miscibility gap.” This is not a sentence. It needs a verb and object.

“The spinodal curve defined by the condition: (equation) (3)” > “The spinodal curve is defined by the condition: (equation) (3)” Verb needed.

“... when the temperature reduced, ...” > “... when the temperature is reduced, ...” Verb needed.

“... their fractions unchanged with temperature.” > “... their fractions are unchanged with temperature.” Verb needed.

Active/Passive, Present/Past verb structures

“... using male ... mice that treated, orally, by AMF1 alone ...” > “... using male ... mice that were treated, orally, by AMF1 alone ...” The mice did not inflict the treatment on something, but instead received the treatment.

“... direct in AlAsBi [17]. While Al-As-Bi system prove challenging ...” > “... direct in AlAsBi [17]. The Al-As-Bi system proved challenging ...” Incomplete sentence started with “While”, so “While” is deleted. An article is needed. Past tense is needed to match previous sentence.

“... were summarized in Table 2.” > “... are summarized in Table 2.” The Table in this manuscript is presented in the present tense.

Variations of verb “to be”

“... it is concluded that ... BT be beneficial in ... detoxification ...” > “... it is concluded that ... BT is beneficial in ... detoxification ...”

“This fact seems be reasonable ...” > “This fact seems to be reasonable ...”

“... any change of the ... of the active layer seem be of importance.” > “... any change of the ... of the active layer seems to be of importance.” The subject is “change” which is singular. The verb also needs a change.

Words

Word Pairs The context may require a particular pair of words, such as in terms of.

“... samples were used to ... assessments.” > “... samples were used for ... assessments.”

“... of three PV arrays providing each a maximum ...” > “... of three PV arrays each providing a maximum ...”

“This behaviour is associated to the reduction ...” > “This behaviour is associated with the reduction ...” [8 times, with different words before and after those words] However, “attributed to” [3 times] is valid in another context.

“... it is worth pointing that ...” > “... it is worth pointing out that ...”

“... which results a significant increase ...” > “... which results in a significant increase ...”

“... transfer between nearby QDs resulted by the inhomogeneous distribution.” > “... transfer between nearby QDs resulted from the

inhomogeneous distribution.”

“... **prediction** their crystallographic data ...” > “... **prediction** of their crystallographic data ...”

“... changes **from** structure to another ...” > “... changes **from one** structure to another ...” [3 times]

“The narrow resonance at 1.42 eV is **related with** the direct band gap ...” > “The narrow resonance at 1.42 eV is **related to** the direct band gap ...”

“... same growth conditions **that** the structure B.” > “... same growth conditions **as** the structure B.” **same ... as**

Word choice

“... maintenance without any real **interest**, causing a waste of time ...” > ... maintenance without any real **justification**, causing a waste of time ...”

“... a subspace of **positive right** directions ...” > “... a subspace of **orthogonal** directions ...”

“... directions by holding the highest captured features **acknowledge**.” > “... directions by holding the highest captured features **found**.”

“(math expression) **covering** the principal subspace while ...” > “(math expression) **covers** the principal subspace while ...”

“(math expression) **covering** the residual subspace.” > “(math expression) **covers** the residual subspace.”

After a new heading “Statistical parameters”: “**Their** statistical measures are utilized, ...” > “**The** statistical measures are utilized, ...”

The following listed expressions were not previously mentioned.

Cline-to-linefault > **Connectivity fault** **Matching the choice in a previous Table.**

“... determine which class the data **appertain for**.” > “... determine which class the data **belong to**.”

“**Consider** the ANTSMC scheme (30), the controller parameters are chosen to be ...” > “**Considering** the ANTSMC scheme (30), the controller parameters are chosen to be ...”

“... structures have been **fascinated** the interest of ...” > “... structures have been **fascinating** the interest of ...”

“... the fabrication of **self-assembles** QDs.” > “... the fabrication of **self-assembled** QDs.” **That makes it an adjective. Alternatively, make it a noun by “... self-assemblies of QDs.”**

“... which **conducts** to a lowering ...” > “... which **contributes** to a lowering ...”

“Moreover, **we** should be noted that ...” > “Moreover, **it** should be noted that ...”

“... is explained by the ... and **to** the ...” > “... is explained by the ... and **by** the ...” **Paired with “explained”.**

“Additionally, **to** the PL peak energy, the full width at half ...” > “Additionally, **for** the PL peak energy, the full width at half ...”

“... by the **thermo** activation of carriers ...” > “... by the **thermal** activation of carriers ...”

“**In the meanwhile**, the LQDs energy ...” > “**Meanwhile**, the LQDs energy ...” **Perhaps the author was thinking of “In the mean time” which is valid. Meanwhile means the same thing but is shorter.**

“... the thermal annealing **leading** to reduce the dispersion of ...” > “... the thermal annealing **helps** to reduce the dispersion of ...” **The sentence wants a verb.**

“... they show **slightly** discrepancy ...” > “... they show **a slight** discrepancy ...”

“... phases are only stable below 270.4°C and the liquid phase is stable **from** this temperature.” > “... phases are only stable below 270.4°C and the liquid phase is stable **above** this temperature.” **To contrast with “below”.**

“... temperature **favourites** the liquid phases.” > “... temperature **favors** the liquid phases.”

“**Much** growth temperatures were used ...” > “**Many** growth temperatures were used ...”

“In this **future**, the structure is considered ...” > “In this **feature**, the structure is considered ...”

“In order to **analysis** the effect of ...” > “In order to **analyze** the effect of ...”

French structure showing

“... is the **constant of Boltzmann**.” > “... the **Boltzmann constant**.”

“**Tableau**” > “**Table**”

Punctuation and emphasis

Capitalize the start of a sentence

“**within** the spinodal region, the Gibbs free energy ...” > “**Within** the spinodal region, the Gibbs free energy ...”

Period at sentence end

“... the number of PCs (in this study, $\ell = 6$) **Figure 5** shows ...” > “... the number of PCs (in this study, $\ell = 6$). **Figure 5** shows ...” **Figure starts a new sentence, so the period is needed.**

“... **binaries** In order to ...” > “... **binaries**. In order to ...”

Remove period (not the end of a sentence)

“... friction forces, **sign**. designates the sign function, ...” > “... friction forces, **sign** designates the sign function, ...” **The letters “sign” are in equation (4).**

“... to be **reached**. So that the ...” > “... to be **reached** so that the ...” **The capitalization was also removed to form a longer sentence.**

“Table **II**. presents ...” > “Table **II** presents ...”

Insert hyphen

“... a group of **one class** classifiers is ...” > “... a group of **one-class** classifiers is ...”

“... to **one class** classifier ...” > “... to **one-class** classifier ...”

“... (the case of **as grown** sample), ...” > “... (the case of **as-grown** sample), ...” [3 times] A similar correction was needed in 3 Figures. However, the hyphenated version was used [9 times]. Consistency is needed. A global replacement of “as grown” by “as-grown” can be made carefully in the text but that does not affect the words within the Figure drawings.

“... thermodynamic **binary based** prediction ...” > “... thermodynamic **binary-based** prediction ...”

Remove hyphen

“**Dealing-** with the ...” > “**Dealing** with the ...”

Mathematical and chemical

“... ratio were 9.5 and **68 10⁻⁴**, respectively, ...” > “... ratio were 9.5 and **68 * 10⁻⁴**, respectively, ...” A multiplication symbol is needed. Perhaps the notation using E before the powers of ten is acceptable.

“**CCl4** or **SiH4**” > “**CCl₄** or **SiH₄**” Subscripts needed.

Remove comma

“... two parallel strings, **in** which ...” > “... two parallel strings **in** which ...”

“It is clearly **shown**, from these interpretations ...” > “It is clearly **shown** from these interpretations ...”

“**Therefore**, Eq. (2) can be written as:” > “**Therefore** Eq. (2) can be written as:”

“**Therefore**, (1) can be written ...” > “**Therefore** (1) can be written ...”

“(equation) (37) becomes: (38) **Then, we** get: (equation) (39) ...” > “(equation) (37) becomes: (38) **Then we** get: (equation) (39) ...”

“... the large-QDs, **as** a function of ...” > “... the large-QDs **as** a function of ...”

“This means **that**, the thermally activated ...” > “This means **that** the thermally activated ...”

Space after comma, not before comma

“... during FDD),**to** make ...” > “...FDD), **to** make ...”

“To do **this**, a machine ...” > “... **this**, a ...”

“Generally,**this** type ...” > “Generally, **this** type ...”

Replace ; by ,

“All the calculations **done; we** get: (equations) ...” > “All the calculations **done, we** get: (equations) ...”

“... are the arm joint **lengths; m₁** and **m₂** are ...” > “... are the arm joint **lengths, m₁** and **m₂** are ...” for consistency with the rest of the sentence where only commas are used in describing variables

Replace ; by :

“... as **follows;**” > “... as **follows:**”

Insert space

“The RF **[35]is** a ...” > “The RF **[35] is** a ...”

“**[25,26]**” > “**[25, 26]**”

“**[15,16]**” > “**[15, 16]**”

Replace periods by semicolons [after “(equation) where ...” - multiple phrases explaining variables and relationships are ended with periods, but all belong in the same sentence after “where”.]

Number commas and periods (Depends on the publishing country. American usage has a period separating the fractional part and commas separating the thousands, millions, billions, and so on.)

“... of **550000** samples with **50000** samples ...” > “... of **550,000** samples with **50,000** samples ...”

“... over **50000** observations (5000 x 10).” > “... over **50,000** observations (5000 x 10).”

Possessive/Plural

“... the **systems** availability ...” > “... the **system's** availability ...” Though plural systems are mentioned elsewhere, this context is about a singular system, so it is possessive, not plural.

By themselves, “system availability” treats system as an adjective. For a possessive system changes are needed.

Singular: ... the system's availability ...

Plural: ... these systems' availability ...

Alternate: ... the availability of the system ... (singular)

Alternate: ... the availability of the systems ... (plural)

“... these **systems** dependability ...” > “... these **systems'** dependability ...” The “these” means plural systems, yet possessive structure.

“... decrease of the **carriers** confinement potential ...” > “... decrease of the **carrier's** confinement potential ...” Made it possessive.

“... caused by the **carriers** transfer and ...” > “... caused by the **carrier’s** transfer and ...” Made it possessive. [2 times]

Comparisons (-er, -est)

“... exhibits a **fast** redshift than that ...” > “... exhibits a **faster** redshift than that ...” The word “than” indicates a comparison.

Connections and continuations

Connections - which (Is what follows a sentence or a continuation phrase?)

“... for fault diagnosis of PV systems **aims** to identify ...” > “... for fault diagnosis of PV systems **which aims** to identify ...”

“... denotes the diagonal matrix **comprises** the eigenvalues ...” > “... denotes the diagonal matrix **which comprises** the eigenvalues ...”

“... when a serious fault occurs ... **which** causes real damage ...” > “... when a serious fault occurs ... **it** causes real damage ...” The rest of the sentence wants a subject in this location.

“... Bayes **theorem. Which** supposes that ...” > “...Bayes **theorem which** supposes that ...” Merge into single sentence.

Connections - while (Is what follows a complete sentence or a continuation phrase to the previous sentence? Starting with “While” wants a subject-verb combination listed after the named conditions.)

“**While, in [23],** a fault detection procedure ...” > “**In [23]** a fault detection procedure ...” The context starts a new sentence which introduces another reference. Otherwise we have a skeleton construction “While ... a procedure ... is developed.” which looks like a phrase rather than a sentence.

“... are the nominal parts **While** (variable list)” > “... are the nominal parts **while** (variable list)” While does not start a new sentence.

“... temperatures beyond **100K. While** the LQDs PL intensity increases ...” > “... temperatures beyond **100K while** the LQDs PL intensity increases ...” While does not start a new sentence.

“... the larger **QDs. While after** an annealing temperature ...” > “... the larger **QDs. After** an annealing temperature ...” Though I could remove the period and use “while”, the present sentences are already long and detailed. So I deleted the “While” and started the second sentence with “After”.

“While the ... increases ... (300K). **The** reduction of ...” > “While the ... increases ... (300K), **the** reduction of ...” “While” started an incomplete sentence. The context links it to the following sentence, not the previous sentence.

“**While the** FWHM ratio decreases ...” > “**The** FWHM ratio decreases ...” There is no second, resulting activity in the sentence, so “While” is deleted and the sentence starts with “The”.

“... direct in AlAsBi [17]. **While** Al-As-Bi system **prove** challenging ...” > “... direct in AlAsBi [17]. **The** Al-As-Bi system **proved** challenging ...” Incomplete sentence started with “While”, so it is deleted. An article is needed. Past tense is needed to match previous sentence.

Connections - where (Does “Where” start a proper sentence or is it a continuation phrase after an equation?)

(Sentence) “**Where** this subspace is ... for each operating **mode. They** will then be coded ...” > (Sentence) “**Where** this subspace is ... for each operating **mode, they** will then be coded ...” I left the “Where” and merged its long phrase (incomplete sentence) with the following sentence.

“... system. **Where, we** propose ...” > “... system. **We** propose ...” Where should not start this new sentence.

(Equation) “(4) **Where** “(capital Lambda) = ...” > (Equation) “(4) **where** “(capital Lambda) = ...” The following words are a continuation, not a sentence.

“(Equations) (6) **Where** *T...*” > “(Equations) (6) **where** *T...*” Also the Where was improperly indented because it does not start a new paragraph.

“... comprises 3 modules **related in series. Where each module consists** of 20 cells.” > “... comprises 3 modules, of 20 cells **each, related in series.**” Where does not start a proper sentence.

“... 4888 samples among 5000, where 2.24% **of misclassification is given, where just 112 samples are misclassified.**” > “... 4888 samples among 5000, where 2.24% **(112 samples) are misclassified.**”

“..., as follows: (equation) (1) **Where:** (list of variables)” > “..., as follows: (equation) (1) **where:** (list of variables)” Where does not start a proper sentence. The colon after where may be optional; it was not used in explaining (2).

“(equation) (2) **Where** (list of other variables)” > “(equation) (2) **where** (list of other variables)” This equation is the start of a new sentence, and the equals sign after the first variable serves as the verb.

“... the following inequation: (inequality expression) (3) **Where** (three variables) are positive numbers.” > “... the following inequation: (inequality expression) (3) **where** (three variables) are positive numbers.” Where does not start a proper sentence.

“(equation) (4) **Where** (two variables described).” > “(equation) (4) **where** (two variables described).” Where does not start a proper sentence.

“(equation) (6) **Where** (variable list)” > “(equation) (6) **where** (variable list)” Where does not start a proper sentence.

“... such that: (inequality expression) (9) **Where** (three variables) are positive constants.” > “... such that: (inequality expression) (9) **where** (three variables) are positive constants.” Where does not start a proper sentence.

“as follows” (equations) (13) **Where** (variable) ...” > “as follows” (equations) (13) **where** (variable) ...” Where does not start a proper sentence.

“... is introduced as: (equation) (15) **Where:** (equation) ...” > “... is introduced as: (equation) (15) **where** (equation) ...” Where does not

start a proper sentence. Also the colon is removed.

“... functions, u_{eq} and u_n . **Where** u_{eq} corresponds ...” > “... functions, u_{eq} and u_n **where** u_{eq} corresponds ...” **Where does not start a proper sentence.**

“(equation) (22) **Where** K is the gain ...” > “(equation) (22) **where** K is the gain ...” **Where does not start a proper sentence.**

“The adaptive variables ... are (3 variables). **Where** the adaptation law ...” > “The adaptive variables ... are (3 variables) **where** the adaptation law ...” **Where does not start a proper sentence.**

“... developed as: (equation) (30) **Where** (3 variables) are the estimates ...” > “... developed as: (equation) (30) **where** (3 variables) are the estimates ...” **Where does not start a proper sentence.**

“Then we get: (equation) (39) **Where** (variable defined)” > “Then we get: (equation) (39) **where** (variable defined)” **Where does not start a proper sentence.**

“... the differential inequation: (inequality expression) (41) **Where** (variable range) and (variable range).” > “... the differential inequation: (inequality expression) (41) **where** (variable range) and (variable range).” **Where does not start a proper sentence.**

“... is characterized by: (equation) (42) **Where:** (5 matrix equations) (43) **With:** (multiple equations) (44) **Where** q_1 and q_2 are ...” > “... is characterized by: (equation) (42) **where:** (5 matrix equations) (43) **with:** (multiple equations) (44) **where** q_1 and q_2 are ...” **Where and With do not start proper sentences.**

“... is defined as: (matrix equation) **Where:** (pair of equations)” > “... is defined as: (matrix equation) **where:** (pair of equations)” **Where does not start a proper sentence.**

“... equation: (equation) **Where** I_o is ...” > “... equation: (equation) **where** I_o is ...” **Where does not start a proper sentence.**

“... polynomials [20] as: (equation) (2) **Where** (variable) is ...” > “... polynomials [20] as: (equation) (2) **where** (variable) is ...” **Where does not start a proper sentence.**

“... according to the relation [27]: (equation) **Where** (variable defined) is the ...” > “... according to the relation [27]: (equation) **where** (variable defined) is the ...” **Where does not start a proper sentence.**

Connections - with (Does this continue a sentence?)

“... into: (Equation) (5) **With** (Equations) (6) ...” > “... into: (Equation) (5) **with** (Equations) (6) ...” **With does not start a proper sentence.**

“Moreover, **the** addition of Bi in AIAs **alloys** one may encounter ...” > “Moreover, **with** the addition of Bi in AIAs **alloys**, one may encounter ...” **Inserting “with” isolates the phrase.**

Connections - that (Is what follows a sentence or a continuation phrase?)

“... can be **attained**. **In such a way**, the first one (math expression) ...” > “... can be **attained in such a way that** the first one ...”

“... behave differently **than that** the large-QDs ...” > “... behave differently **than** the large-QDs ...” **Deleted**

“... energy E_{a2} is much larger **than that** E_{a1} for ...” > “... energy E_{a2} is much larger **than** E_{a1} for ...” **Deleted**

“The pattern **exhibits** the most intense narrow peak belongs to ...” > “The pattern **that exhibits** the most intense narrow peak belongs to ...” **“Pattern ... belongs” are the subject and verb, so inserting “that” isolates “exhibits” into a phrase.**

Connections - and

“... intensity ... depends on temperature **is** much stronger ...” > “... intensity ... depends on temperature **and is** much stronger ...”

Revised sentences

Sentence structure (adding or deleting words or punctuation, rearranging them)

“The SURFRAD **comprises seven station** the continental U.S. **measure** a set of climatic parameters including...” > “The SURFRAD **data are from a 7-station network in** the continental U.S. **that measures** a set of climatic parameters including...” **Major restructure. (The inserted network is singular, so measures is used.)**

“... the system in healthy operating mode **behaves** as if it is in faulty conditions; **also, in the opposite way.**” > “... the system in healthy operating mode **may or may not behave** as if it is in faulty conditions.” **Also note “system ... behaves” is changed to “... behave” because of two possible behaviors.**

“Previous researches have considered the irradiance by few operating points **seen its high influence on GCPV system.**” > “Previous researches have considered the **high influence on the GCPV system of** the irradiance of a few operating points”

“This supposition **value is that it** greatly simplifies ...” > “This supposition **value** greatly simplifies ...”

“Each single PV array contains **of two** parallel strings, ...” > “Each single PV array contains **two** parallel strings, ...”

“... decreases by 50%, **also**, the variable ...” > “... decreases by 50%. **Also**, the variable ...” **Start a new sentence.**

“... the high resemblances between the same **faults** regardless of the array (PV1/PV2) which are injected **in** affect the system behavior ...” > “... the high resemblances between the same **faults**, regardless of the array (PV1/PV2) which are injected **in**, affect the system behavior ...” **Adding the two commas isolates the phrase and makes it easier to notice “... resemblances ... affect ...”**

“... serious faults influencing **on power** generation.” > “... serious faults influencing **power** generation.”

“..., **it can be clearly shown** the high misclassification between the studied operating classes.” > “..., the high misclassification between the studied operating classes **can be clearly shown.**” **The “it” is replaced by the stronger “misclassification” as the subject.**

“Based on the results presented in Tables 6, 7 it is can be clearly shown the improvement of techniques based on the new strategy in terms of accuracy, which rectify the high misclassification obtained previously ...” > “Based on the results presented in Tables 6, 7, the improved techniques of the new strategy increase the accuracy and rectify the high misclassification rates obtained previously ...”

“... with negligible misclassification by order of 0.2% is given.” > “... with negligible (0.2%) misclassification.”

“Similarly, for the ANN classifier, reaches a 100% accuracy with 0% of misclassification.” > “The ANN classifier reaches 100% accuracy with no misclassifications.” In addition, perfection is not similar to the results of previous statements, so Similarly is removed.

“For the exoskeleton system ... constraint (9) and suppose that ... are unknown.” > “For the exoskeleton system ... constraint (9), suppose that ... are unknown.” Replacing “and” by a comma makes it a sentence.

“If the NTS surface ... the adaptive law (28). Then, the tracking error ...” > “If the NTS surface ... the adaptive law (28), then the tracking error ...” For this very long sentence, changing the punctuation and capitalization makes the sentence complete.

“... at T=12K (the case of as grown sample), see figure 1(a).” > “... at T=12K (the case of as-grown sample). See Figure 1(a).” The “see figure 1(a).” seems like a separate sentence. If so, replace the comma with a period and capitalize the s. Otherwise move that command forward inside the previous parentheses: “... (see Figure 1(a), the case of as-grown sample.)” Other corrections also shown.

“... the excess Gibbs energy ... is positive, the Gibbs free energy of the solution ...” > “... the excess Gibbs energy ... is positive, so the Gibbs free energy of the solution ...” A connecting word is needed: (so, and, therefore) are possibilities.

“Indeed, as remarked that the increase of temperature favourites the liquid phases.” > “Indeed, as remarked, the increase of temperature favors the liquid phases.” Removed “that”.

“... the possibility of appearing a liquid solution in the Al-As-Bi system at temperature lower than 658°C.” > “... the possibility of a liquid solution in the Al-As-Bi system appearing at temperatures lower than 658°C.”

“This means that Al-As-Bi alloys should melt in the temperatures above 658°C during cooling after solidification.” There is a logical problem with this sentence. The alloys cannot be melting at already colder temperatures after solidification.

“However, the fusion temperature of FCC phase of AlAsBi depends on Bi content. Indeed, for FCC phase of AlAsBi the fusion temperature decreases as a function of Bi content.” > “For the FCC phase of AlAsBi the fusion temperature decreases as a function of Bi content.” The second sentence is superior to the first by explaining the graph better. So the first sentence is deleted.

“... various growth conditions like, temperature, Bi/As ratio, ...” > “... various growth conditions, like temperature, Bi/As ratio, ...” Moved comma. The list continues and a comma is used to end the list and continue the sentence:

“... flux ratio, QWs thickness were proposed.” > “... flux ratio, QWs thickness, were proposed.”

“... lattice parameter due to carbon incorporation due to the low growth temperature ...” > “... lattice parameter due to carbon incorporation resulting from the low growth temperature ...” Having “due to” twice in the sentence is not good style. Another substitution could be “because of”.

“... a sharp peak located at 0° corresponds to the diffraction from the GaAs layer and substrate can be seen in each diffraction pattern.” > “... a sharp peak located at 0° can be seen in each diffraction pattern which corresponds to the diffraction from the GaAs layer and substrate.” Moved the verbal ending closer to the subject and added “which” to refer back to “peak”.

Simplification

A manuscript had a Table 8 with 11 lines for different sample classes. For each class the table lists 35000 Training data and 15000 Testing data. So the data columns have the same numbers for all classes. Therefore I recommended that the entire Table 8 be removed (and subsequent Tables renumbered). Instead of the Table 8, this sentence could be used: “The training phase is performed on 70% of the 50,000 collected observations, while the testing phase is carried out on the remaining 30% of the data.”

The Table 8 was followed by a new paragraph:

“Actually, selecting an appropriate number ...” > “Selecting an appropriate number ...”

“Accuracy is the most important metric in which it computes the correctness of the classification.” > “Accuracy is the most important metric; it indicates the correctness of the classification.”

“As shown in Figure the concept of this strategy addressed in such a way every classifier is trained to classify a precise class with a label 1 in the case where the input features belong to this class if not it is labeled -1 (as illustrated in Table 11).” > “As shown in Figure 8 and Table 11, the strategy of one-class classifiers simply assigns a 1 (logical TRUE) to the Target class and assigns a -1 to all other classes.”

Figure axis label

Between each of a time axis tick marks are the words “6pm to 10pm”, “10pm to 2 am”, and so on for four more intervals. > Instead, label the tick marks directly as 6 pm, 10pm, 2am, 6am, and so on.