Language is an intricate system with sophisticated rules of grammar and style governing its use. It doesn't matter who uses English and in what profession, the language is the same. If in a profession, arbitrary rules are invented and used, it inevitably impairs grammar and style seriously.

In this linguistic article, the "history of the passive" in scientific writing and the present situation are explained. <u>https://jcom.sissa.it/sites/default/files/documents/JCOM\_1301\_2014\_A03.pdf</u>

Why did the passive become fashionable? Because somebody a long time ago said it was "more objective". Is "I did an experiment" less objective and reliable than "An experiment was done"? Did I do the experiment incorrectly, without proper preparation etc. just because I mentioned that I did it? Hardly.

If I don't want to say who performed the experiments, why do I even write my name on the paper?

Or how "objective" is the passive sentence: "The colour of the product was found to be pleasing"? Is it a lot more objective than "We found the colour of the product pleasing?" I don't think so.

It is also a common misconception that the passive emphasizes the action and the active (wrongfully) emphasizes the performer of the action. Nothing could be further from the truth. English has end-focus, which means that the end of the sentence carries stress. Actually, there are three possible levels of stress on the "doer" of an action.

1. No stress – Passive voice:

The performer of the action is hidden because it is not important, obvious, unknown or should be kept secret. No stress on the performer whatsoever. Examples:

A mistake has been made. (I don't want to say I did it.)

A new bridge was built last year. (Obvious: the government/workmen built it.)

Jack's car has been stolen. (Unknown.)

A new method has been developed... (In the Abstract or Introduction, it is highly incorrect: who did it? The authors? Other researchers? Even if it can be deciphered that it was most probably the authors, it is absolutely unscientific to deliberately use a more complicated method with the sole aim of losing relevant information.)

Correctly: We developed a new method... (Not only simpler but more accurate—isn't this what science should be about?)

2. Little stress – Active voice:

The performer is mentioned but what is really important comes at the end of the sentence (end-focus). The performer receives limited emphasis. Examples:

My brother has written a bestseller. (My brother is not the important information here. The active voice does not "emphasize" the performer of the action! What is important comes at the end of the sentence: ... written a bestseller. This is what I wanted to say not that I have a brother.)

We developed a new method... (What is important—developing a method—comes at the end of the sentence. The performers of the action are mentioned but do not get much emphasis. They are mentioned because it is a part of scientific accuracy to disclose who performed the research.). This is correct.

3. Much stress – Passive voice with the agent (the performer of the action) mentioned:

Because of end-focus, what I put at the end of the sentence receives extra emphasis. I can put the agent there to give them extra emphasis. Example:

Jack's car was stolen by Lemuel. (Finally! The police have caught the thief! Jack is not important information, the theft is not important information, what is important is the performer of the action. So actually the passive voice emphasizes the "doer" not the active voice! In this case, the passive was just the tool that enabled us to put the agent at the end of the sentence, where it receives end-focus in this case.)

Obviously, the correct use of the passive is more complicated than this, but these are basic rules.

Here are some sources that suggest using the active voice instead.

Expunge virtually all use of the passive voice. Use of the passive voice confuses readers because it does not tell the reader "who" did the action.

https://www.elsevier.com/\_\_data/promis\_misc/adveiwrsty051203.pdf

I think Elsevier is important enough.

Elsevier also rely on the APA Publication Manual. However, APA style is used by many other publishers and journals as well.

https://www.elsevier.com/journals/learning-and-instruction/0959-4752/guide-for-authors

The APA Publication Manual does not force the use of the passive.

When writing in APA Style, you can use the first person point of view when discussing your research steps ("I studied ...") and when referring to yourself and your co-authors ("We examined the literature ...").

It is a common misconception that foregrounding the research requires using the passive voice ("Experiments have been conducted ..."). This is inaccurate. Rather, you would use pronouns in place of "experiments" ("We conducted experiments ...").

APA Style encourages using the active voice ("We interpreted the results ...").

https://owl.purdue.edu/owl/research and citation/apa6 style/apa formatting and style guide/apa stylistics basics. html

APA stylists prefer first person (I reviewed the literature) to third person (the researcher reviewed the literature), and certainly, to passive voice (the literature was reviewed). The main reason for using first person rather than third person or passive voice is to achieve clarity in our writing.

Students often believe it is not acceptable to use "I" in their writing. Teachers sadly sometimes perpetuate the belief, cautioning students that avoiding first person will help their writing be more objective and scientific. https://loveyourdissertation.com/using-first-person-in-apa-style/

Avoid the passive voice; use the active voice.

https://www.ulm.edu/library/documents/apastyle.pdf

Both the active and the passive voice are permitted in APA Style. However, writers often overuse the passive voice. https://apastyle.apa.org/style-grammar-guidelines/grammar/active-passive-voice

Springer is also an important publisher.

Use the *active voice*, not the passive voice, when possible.

https://www.springer.com/gp/authors-editors/authorandreviewertutorials/writinginenglish/concise-writing/10252678 Nature also encourages the use of the active voice.

Nature journals prefer authors to write in the active voice ("we performed the experiment...").

http://www.nature.com/authors/author\_resources/how\_write.html

I think this material from the American Chemical Society is quite straightforward on the use of the passive (pp. 7–13). <u>https://www.acs.org/content/dam/acsorg/events/professional-development/Slides/2015-04-09-active-passive.pdf</u> Also, some universities provide guidelines for their researchers.

http://advice.writing.utoronto.ca/types-of-writing/active-voice-in-science/

The problem is that some writers incorrectly think passive voice is inherently scientific. In fact, some students are taught that passive voice is more objective. Really, the way you write doesn't make your experiments any more objective; instead, your results should speak for themselves.

For whatever reason, many scientists rely on passive voice excessively.

https://sites.duke.edu/scientificwriting/lesson-2-cohesion-coherence-and-emphasis/

I mentioned that intricate linguistic rules govern correct grammar and style. It would obviously not be correct not to use the passive either. It has to be used when it is the right choice (see also levels of stress above!). You can read about some of the more sophisticated rules in some of the sources I listed, for example in the Duke University resource.

Therefore there is definitely no such rule that says "passive is scientific" or "I" or "We" cannot be used in a scientific article!

Correct use of the language deserves just as much scientific accuracy as scientific research, no less. After all, linguistics is a science, too.