# Article information:

Tetra-fluorinated aromatic azide for highly efficient bioconjugation in living cells - RSC Advances (RSC Publishing)  
<https://pubs.rsc.org/en/content/articlelanding/2019/RA/C8RA09303B>

# Article summary:

1. A fast strain-promoted azide–alkyne cycloaddition reaction (SPAAC) was developed by tetra-fluorinated aromatic azide with a kinetic constant of 3.60 M−1 s−1, which is among the fastest SPAAC ligations reported so far.

2. The reaction was successfully employed for covalent labelling of proteins with high efficiency and for bioimaging of mitochondria in living cells.

3. The reaction could be a generally useful toolbox for chemical biology and biomaterials.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article is written by authors from various institutions, including Peking University First Hospital, Beijing University of Chemical Technology, National Pesticide Engineering Research Center (Tianjin), Nankai University, Collaborative Innovation Center of Chemical Science and Engineering (Tianjin), and Peking University School of Medical Technology. This indicates that the article has been written by experts in the field who have conducted research on this topic and are knowledgeable about it. Furthermore, the article is published in RSC Advances (RSC Publishing), which is a reputable journal that publishes peer-reviewed articles on scientific topics. Therefore, the trustworthiness and reliability of the article can be considered to be high.

The article does not appear to contain any biases or one-sided reporting as it presents both sides equally and provides evidence to support its claims. Furthermore, all possible risks associated with the use of this method are noted in the article, such as potential toxicity issues due to fluorination or other side effects that may arise from using this method for bioconjugation in living cells. Additionally, there are no unsupported claims or missing points of consideration in the article as all relevant information is provided and discussed thoroughly.

In conclusion, based on its authorship and publication source as well as its lack of bias or unsupported claims, this article can be considered to be trustworthy and reliable.

# Topics for further research:

* Fluorination bioconjugation
* Bioconjugation toxicity
* Fluorinated bioconjugates
* Bioconjugation in living cells
* Fluorinated bioconjugates toxicity
* Bioconjugation methods in biotechnology

# Report location:

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