

# New Facile General Method for the Conjugation Chemistry Including F-18 Fluorination

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To understand biological functions and processes, the research scientists have frequently faced the synthesis of big biomolecules connected with one or more different molecules. Oligopeptides, oligonucleic acids, and oligosaccharides can rapidly and conveniently be prepared by commercial automatic synthesizer using similar and repeated coupling methods of limited number of protected monomers.

The conjugations are, however, not easy, even when one wants to conjugate two different compounds such as peptides, nucleic acids, carbohydrates, lipids, and synthetic molecules. For this reason, Huisgen azide/alkyne 1,3-dipolar cycloadditions, so called as one of Click chemistry, have been widely applied after these cycloaddition reactions can be proceeded regiospecifically by using Cu(I) catalyst including F-18 fluorination.<sup>[1,2]</sup> Conjugation of two different big molecules which one has azido group and the other a terminal alkyne group became feasible without complicated protective groups. Herein, the development of new convenient method which can conjugate complicated molecules will be discussed. This method could be applied for the preparation of F-18 labeling radiopharmaceuticals.

## References

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