

This article was downloaded by:

On: 28 January 2011

Access details: *Access Details: Free Access*

Publisher *Taylor & Francis*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Phosphorus, Sulfur, and Silicon and the Related Elements

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713618290>

A Novel Phosphoryl Derivative Method for Peptide Sequencing by ESI-MS/MS

Jing Chen^a; Yi Chen^a; Peng Gong^a; Yang Jiang^a; Yu-Fen Zhao^a

^a Tsinghua University, China

Online publication date: 27 October 2010

To cite this Article Chen, Jing , Chen, Yi , Gong, Peng , Jiang, Yang and Zhao, Yu-Fen(2002) 'A Novel Phosphoryl Derivative Method for Peptide Sequencing by ESI-MS/MS', *Phosphorus, Sulfur, and Silicon and the Related Elements*, 177: 8, 2087

To link to this Article: DOI: 10.1080/10426500213398

URL: <http://dx.doi.org/10.1080/10426500213398>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

A NOVEL PHOSPHORYL DERIVATIVE METHOD FOR PEPTIDE SEQUENCING BY ESI-MS/MS

Jing Chen, Yi Chen, Peng Gong, Yang Jiang, and Yu-Fen Zhao
 Tsinghua University, China

(Received July 29, 2001; accepted December 25, 2001)

In the past decade, mass spectrometry has become a powerful tool on peptide sequencing. Different derivative methods for peptide have been used to simplify the mass spectra analysis.^{1,2}

Here, we report a novel derivative method for peptide sequencing. A homo-peptide (Phe)₆ was derived by N-Di-methyloxyposphoryl group at the N-terminal. The sodium adduct was selected and analyzed by ESI-MS/MS which presented very simple fragments.

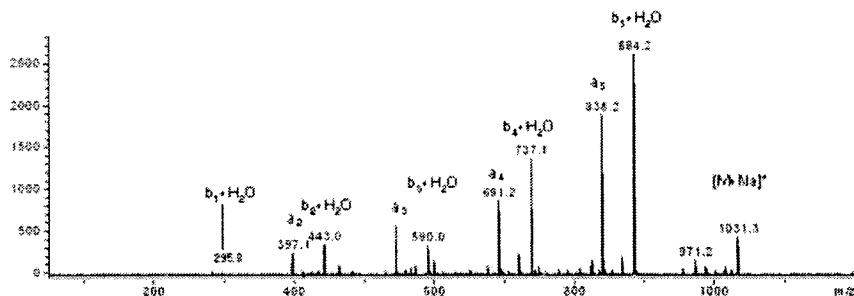


FIGURE 1 Tandem mass spectrometry of DMP-Phe₆.

REFERENCES

- [1] E. V. James and K. Biemann, *Int. J. Mass Spectrom. Ion Processes*, **100**, 287 (1990).
- [2] Z. H. Huang and J. Wu, *Anal. Chem.*, **69**, 137 (1997).

The authors would like to thank financial supports from the Chinese National Natural Science Foundation (No. 29632004, No. 39870415), the Ministry of Science and Technology, the visiting scholar fund of the Chinese Education Ministry, and Tsinghua University.

Address correspondence to Yu-Fen Zhao, Bioorganic Phosphorus Chemistry Laboratory, Department of Chemistry, School of Life Science and Engineering, Tsinghua University, Beijing 100084, P. R. China. E-mail: tp-dch@mail.tsinghua.edu.cn