Structures of Ciguatoxin and Its Congener

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Figure 2. Relative configurations and NOEs of ciguatoxin (1) and its analogue 2. The figures denote NOEs in percentages obtained from NOE difference spectra measured in CD$_3$CN at $-25$ °C (400 MHz) except for those with asterisks, which were obtained in pyridine-$d_5$ at $-25$ °C. The latter were shown to be approximately 3 times larger negative values than the former, presumably owing to the viscosity of the solvents.
Structure and Partial Stereochemical Assignments for Maitotoxin, the Most Toxic and Largest Natural Non-Biopolymer

Michio Murata,* Hideo Naoki,‡ Shigeki Matsunaga,§ Masayuki Satake,† and Takeshi Yasumoto*†

Figure 1. Structure of maitotoxin. Dashed lines denote cleavage sites by periodate degradation. Diastereomeric relations among rings A–F, G–M, and N–F’ remain unknown.
Complete Relative Stereochemistry of Maitotoxin

Wanjun Zheng, John A. DeMattei, Jiang-Ping Wu, James J.-W. Duan, Laura R. Cook, Hitoshi Oinuma, and Yoshito Kishi*

Figure 3. 1B: Complete relative structure of maitotoxin.
Three-dimensional solution structure of the HIV-1 protease complexed with DMP323, a novel cyclic urea-type inhibitor, determined by nuclear magnetic resonance spectroscopy

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Fig. 7. A: View of the superposed heavy atom (N, C", CO) coordinates of 23 (the maximum number that could be displayed by our software) of the 28 accepted NMR structures of the HIV-1 protease/DMP323 complex. For alignment of the structures, backbone coordinates of residues 1-3, 9-35, 46-66, and 70-99 were used. B: Ribbon diagram of the restrained minimized average NMR structure of the complex. The diagram was created with MOLSCRIPT software (Kraulis, 1991).
Synthesis of the Bicyclic Core of the Esperamicin/Calichemicin Class of Antitumor Agents

Stuart L. Schreiber* and Laura L. Kiessling

esperamicin A₁   2
FURTHER INVESTIGATIONS OF THE TYPE II DIELS-ALDER ROUTE TO THE BICYCLIC CORE OF ESPERAMICIN/CALICHEMICIN REVEAL A REGIOCHEMICAL MISASSIGNMENT: META VS. PARA SELECTIVITY

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Abstract The chemistry of an IMDA reaction product has been investigated and reveals that the regiochemical outcome of the cycloaddition was incorrectly assigned in the original report. The product of this reaction is a skeletal isomer of the esperamicin/calichemicin bicyclic core structure.

Scheme
Isolation and Structure Determination of Diazonamides A and B, Unusual Cytotoxic Metabolites from the Marine Ascidian *Diazone chinensis*

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1 \( R_1 = \text{OH}, R_2 = \text{H}, R_3 = \text{Br} \)

2 \( R_1 = \text{OH}, R_2 = \text{Br}, R_3 = \text{H} \)
**Total Synthesis of Nominal Diazonamides—**
Part 1: Convergent Preparation of the Structure Proposed for (−)-Diazonamide A**

Jing Li, Susan Jeong, Lothar Esser, and Patrick G. Harran*

**Total Synthesis of Nominal Diazonamides—**
Part 2: On the True Structure and Origin of Natural Isolates**

Jing Li, Anthony W. G. Burgett, Lothar Esser, Carlos Amezcua, and Patrick G. Harran*

Scheme 2. Revised structures of (−)-diazonamides A and B.