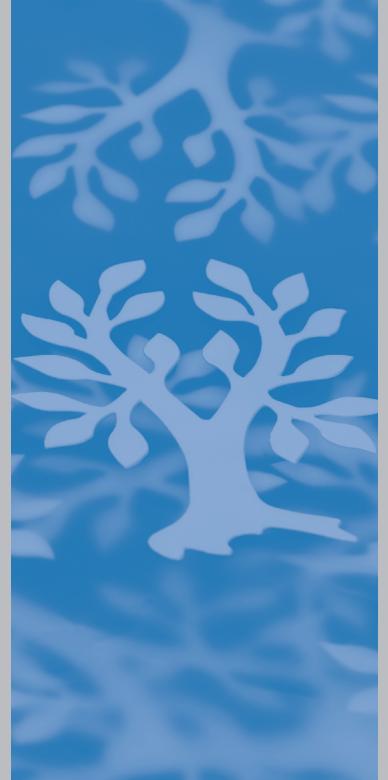
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# SYNFACTS Highlights in Current Synthetic Organic Chemistry

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Z. XU, X. BAO, Q. WANG, J. ZHU\* (ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE, SWITZERLAND)

An Enantioselective Total Synthesis of (–)-Isoschizogamine *Angew. Chem. Int. Ed.* **2015**, *54*, 14937–14940.

# Total Synthesis of (-)-Isoschizogamine

# Significance: The rearranged alkaloid

(-)-isoschizogamine was accessed by a cascade sequence via aza-ortho-quinone methide **L** as the key reactive intermediate. This methide underwent a conjugate addition, followed by aminal formation, to give the tetracyclic core structure of the natural product.

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**Comment:** An enantioselective decarboxylative allylation was used en route to fragment **E**, that was coupled to iodide **J** under microwave irradiation. Further irradiation of the coupled product **K** in the presence of pivalic acid gave aminal **N** in 45% yield, that was converted into the natural product by selenoxide pyrolysis.

# Category

Synthesis of Natural Products and Potential Drugs

### Key words

(-)-isoschizogamine decarboxylative allylation conjugate addition aza-ortho-quinone methide