

## Supporting Information

The first cyclic monomeric 3-alkylpyridinium alkaloid from natural sources:  
identification, synthesis, and biological activity

Christoph Timm,<sup>1</sup> Christian Volk,<sup>1</sup> Florenz Sasse<sup>2</sup>, and Matthias Köck<sup>1\*</sup>

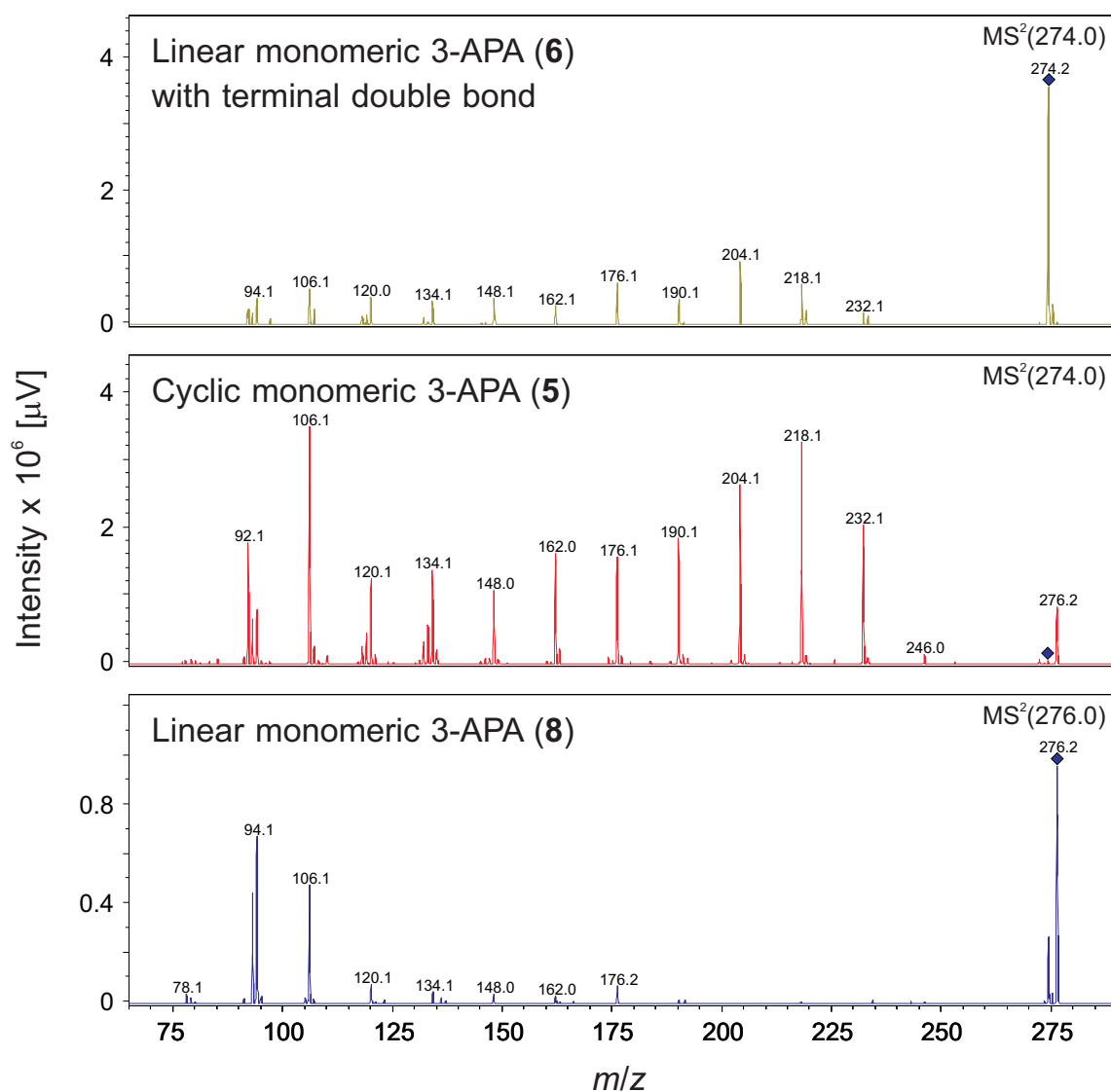
<sup>1</sup> *Alfred-Wegener-Institut für Polar- und Meeresforschung in der Helmholtz-Gemeinschaft,  
Am Handelshafen 12, D-27570 Bremerhaven, Germany*

<sup>2</sup> *Helmholtz-Zentrum für Infektionsforschung, Inhoffenstraße 7, D-38124 Braunschweig,  
Germany*

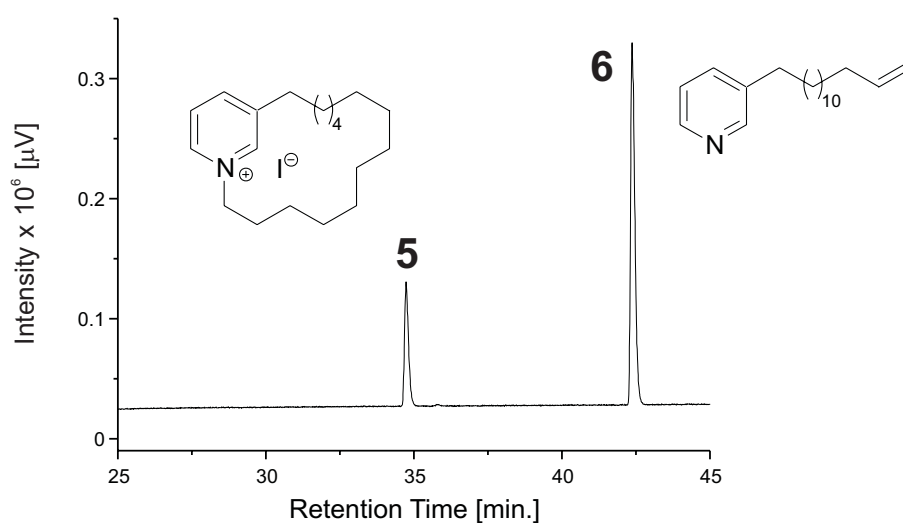
\* To whom correspondence should be addressed: [mkoeck@awi.de](mailto:mkoeck@awi.de)

### Table of contents:

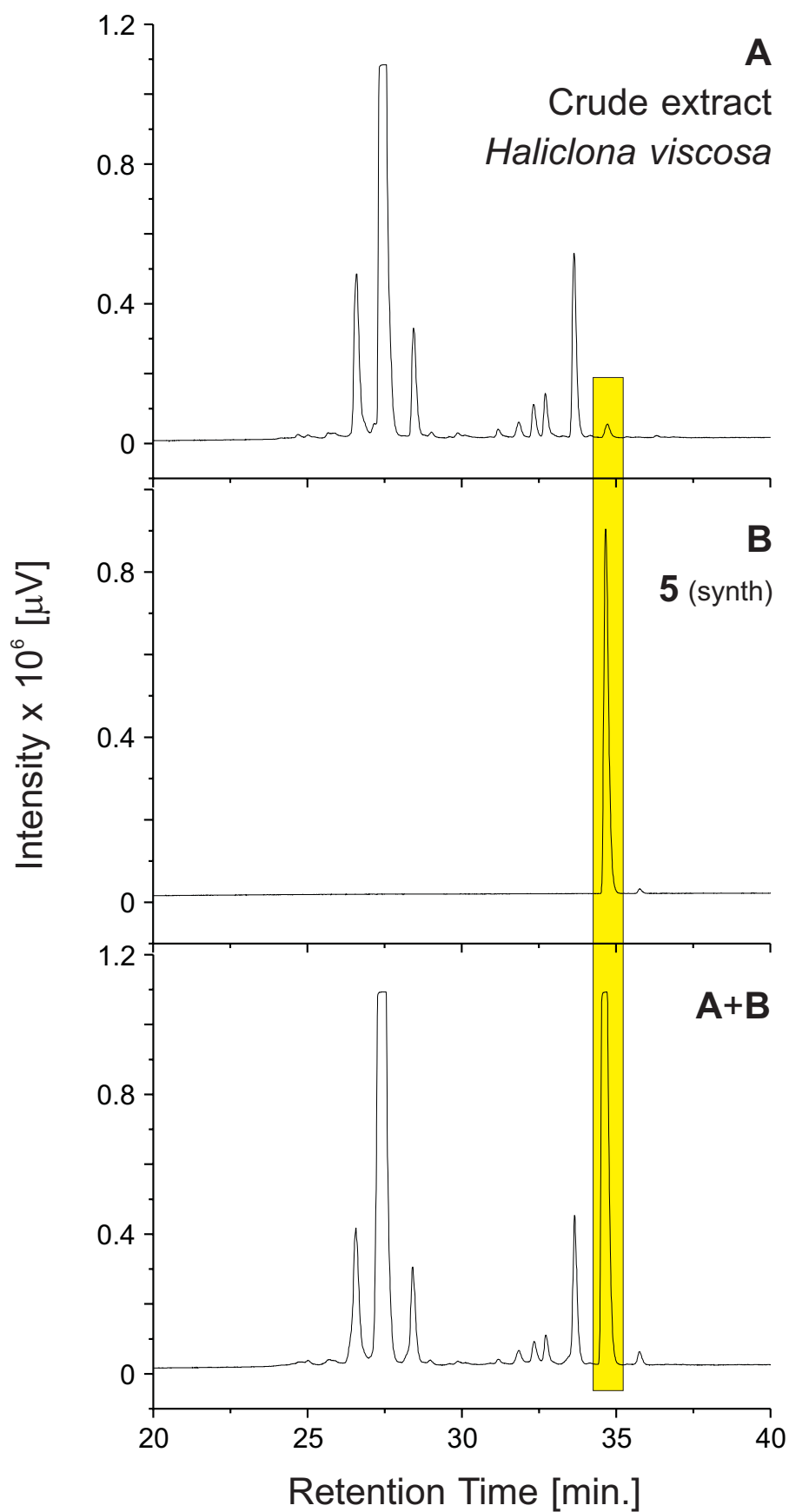
Figure S1: MS/MS spectra of <b>5</b> , <b>6</b> , and <b>8</b> .....	S2
Figure S2: HPLC chromatogram of <b>5</b> and <b>6</b> .....	S2
Figure S3: HPLC comparison of the crude extract and synthetic <b>5</b> .....	S3
Figure S4: MS/MS spectra of the natural product and synthetic <b>5</b> .....	S4



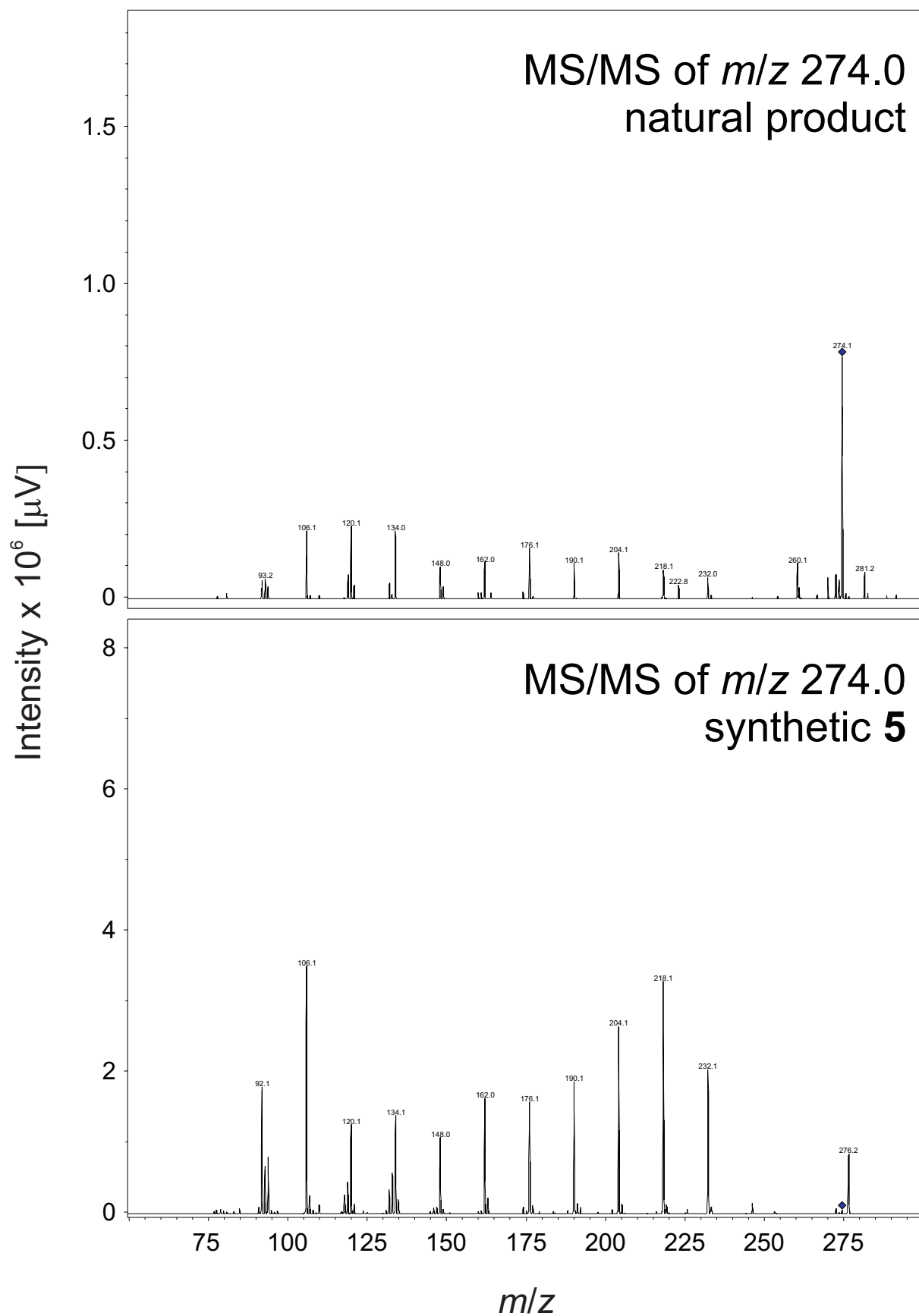
**Figure S1:** MS/MS spectra of the linear 3-APAs **6** and **8** and the cyclic monomeric 3-APA (**5**). The fragmentation pattern of the cyclic monomer (**5**) is identical to linear monomeric 3-APA with terminal double bond (**6**).



**Figure S2:** HPLC chromatogram of the cyclic monomer (**5**) and the linear isomer (**6**).



**Figure S3:** Comparison of the HPLC chromatograms of the crude extract of *Haliclona viscosa* (A), synthetic **5** (B), and a mixture of both (A+B).



**Figure S4:** Comparison of the MS/MS spectra of the natural product (from the MS of the crude extract of *Haliclona viscosa*) and synthetic **5**.