Supporting Information for

Cellular stress upregulates indole signaling metabolites in *E. coli*.

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Supplementary figures.

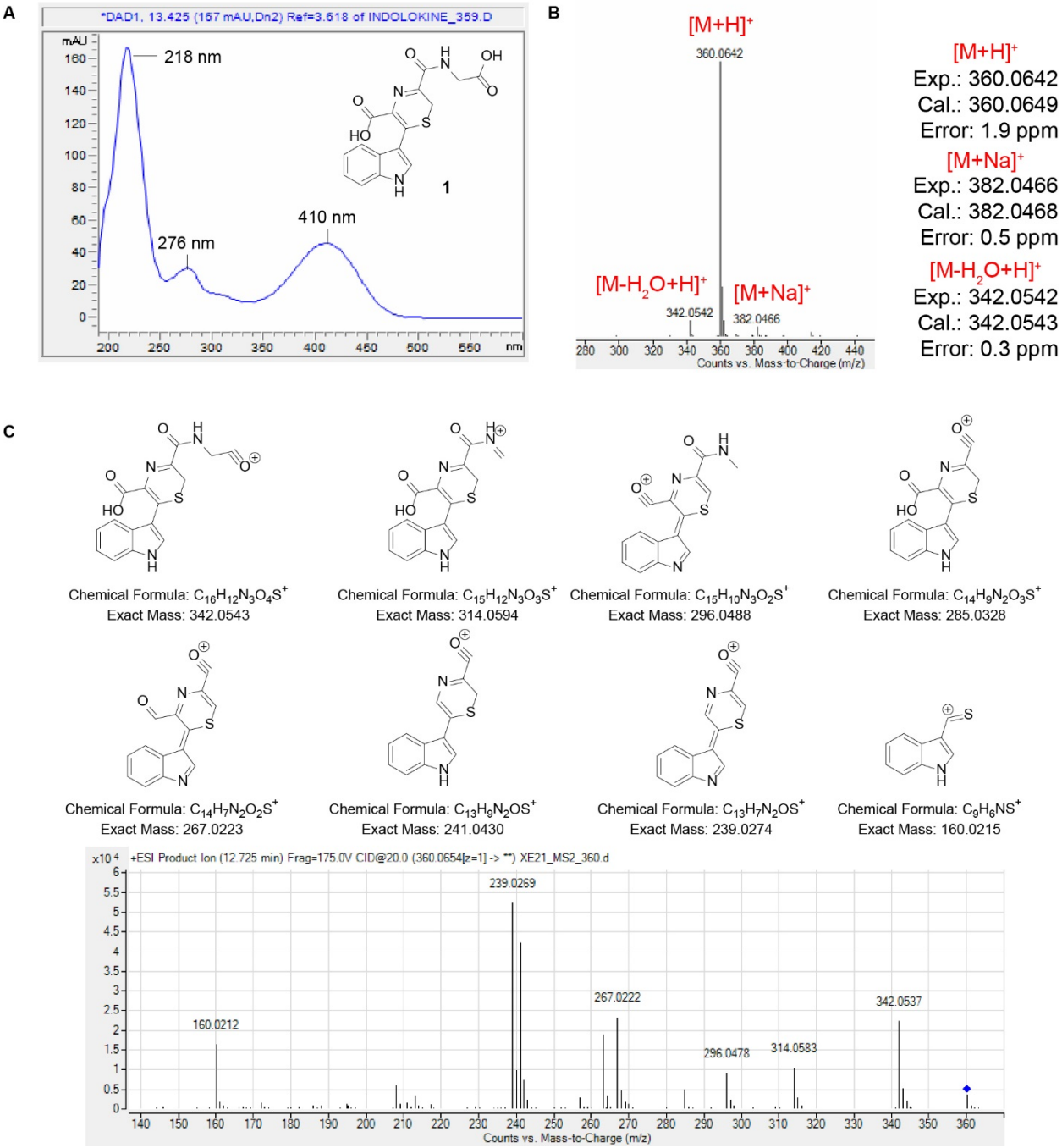


Figure S1. UV-Vis, HR-MS, and tandem MS data of 1 (related to Figure 1). **A**, The UV-Vis spectrum of **1** showed the maximum absorptions at 218, 276, and 407 nm. **B**, The HR-ESI-QTOF-MS data of **1** supported its structural assignment with <2 ppm error for $[M+H]^+$, $[M+Na]^+$, and $[M-H_2O+H]^+$ ion peaks. **C**, Fragment ion structures (top) and tandem MS spectrum of **1** (bottom) are shown.

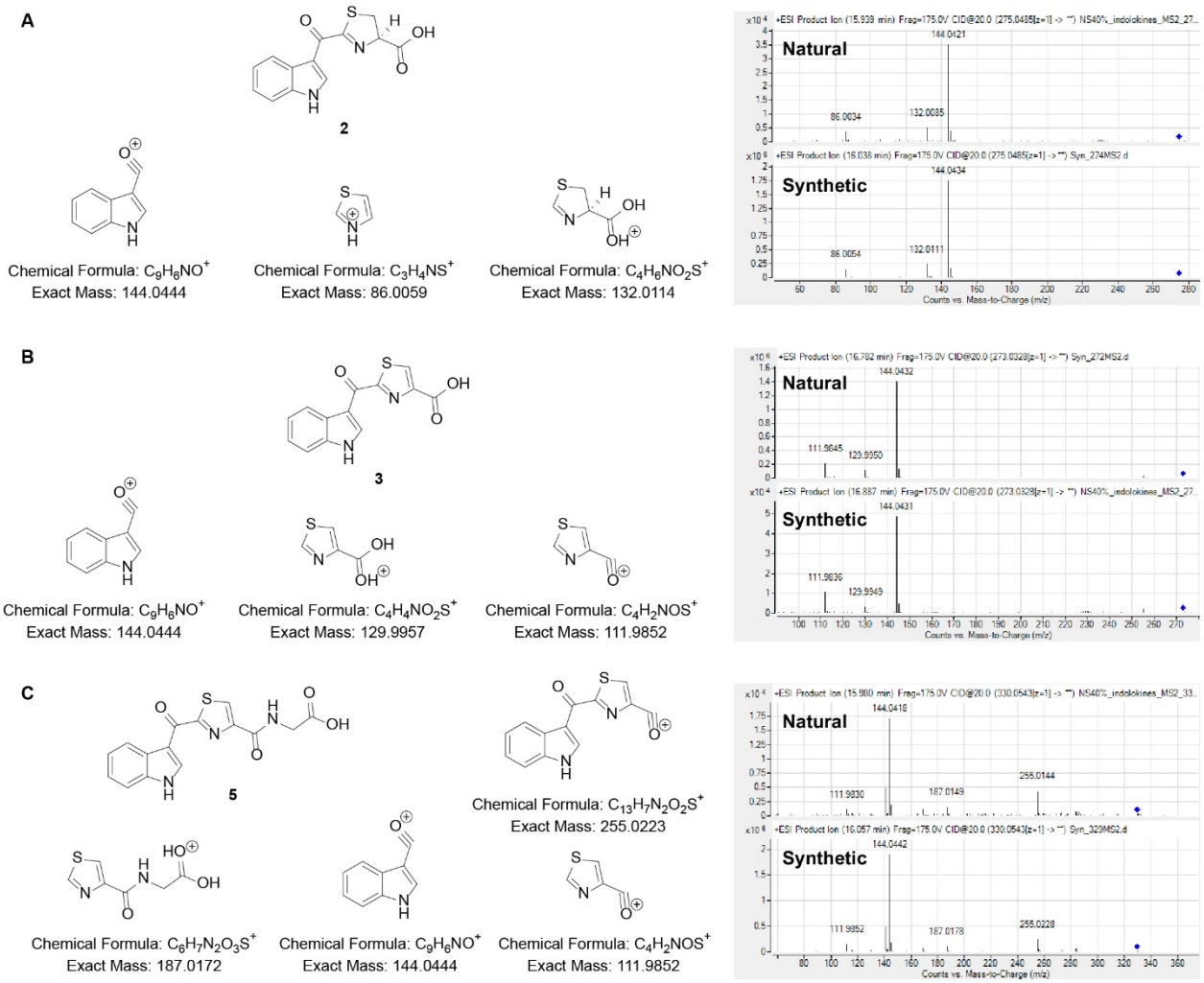


Figure S2. Structural identification of bacterial indolokines 2 (A), 3 (B), and 5 (C) by comparing their tandem MS spectra to those of synthetic compounds (related to Figure 1)**.** Structure of the parent molecule and its fragment ions (left), and tandem MS spectra of natural and synthetic indolokines (right) are shown.

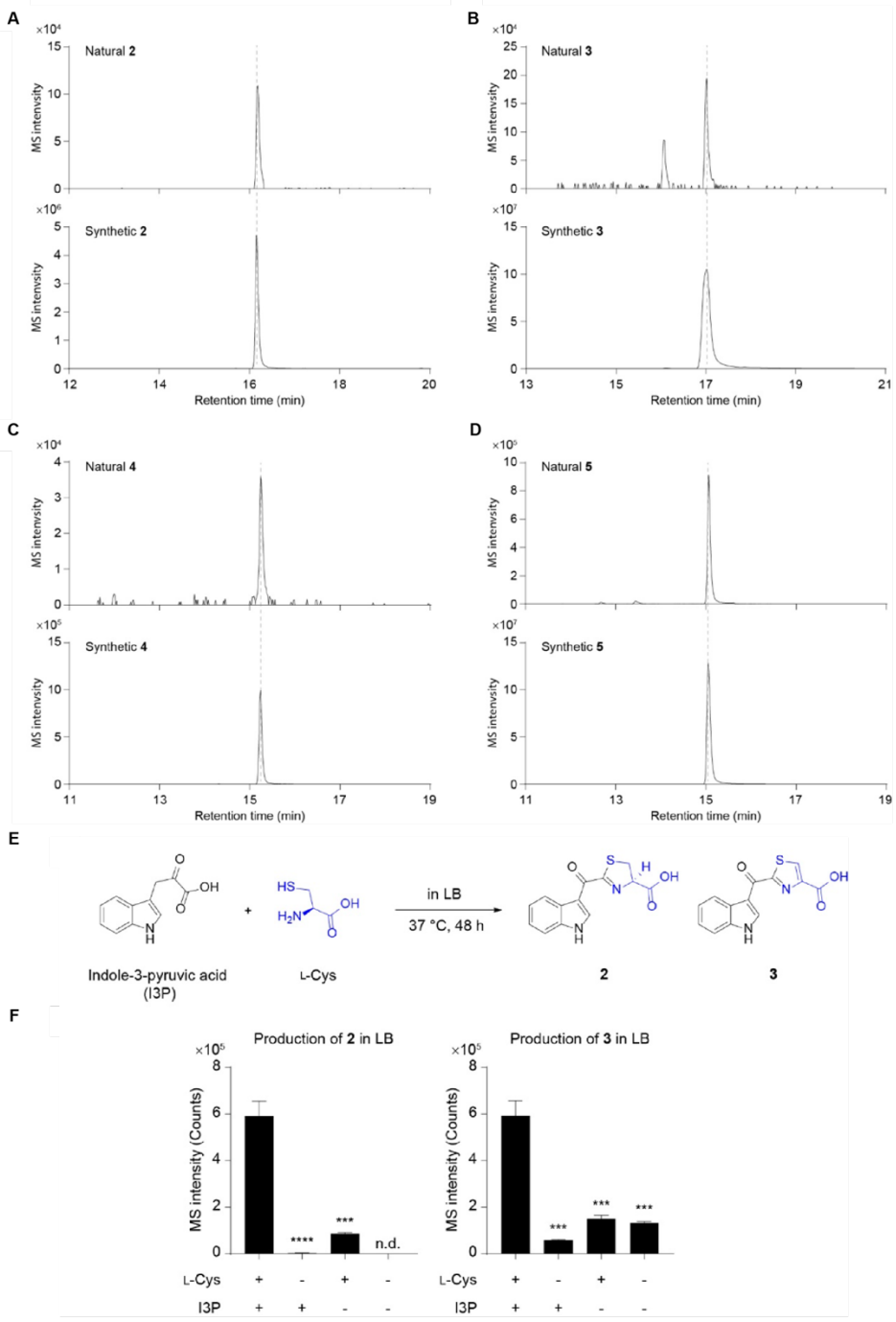


Figure S3. Structural identification of bacterial indolokines 2-5 by comparing their retention times to those of synthetic compounds and biomimetic synthesis of 2 and 3 in LB medium (related to Figure 1 and Figure 3)**.** EICs of natural (top) and synthetic (bottom) indolokines **2-5** (**A-D**, respectively). **E**, Scheme of metabolites **2** and **3** and their formation by non-enzymatic reactions. **F**, Metabolites **2** and **3** were produced when both L-Cys and I3P were present in the LB

medium. Because of diverse components in LB, small amounts of **2** and **3** were observed when either L-Cys or I3P were not added under these conditions. n = 3 biological replicates. Data are mean ± s.d. ***P< 0.001, ****P< 0.0001. n.d., not detected. Two-tailed t-test.

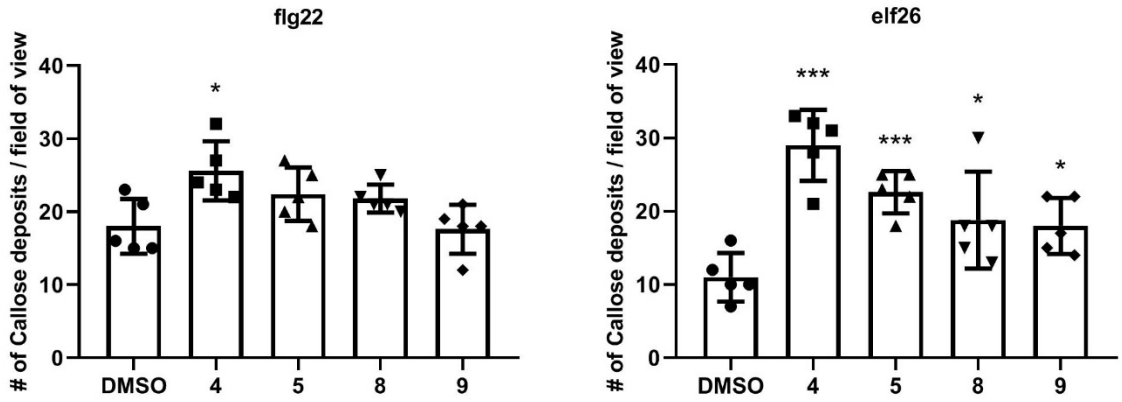


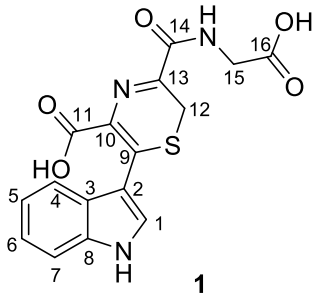
Figure S4. Quantification of callose deposition of *Arabidopsis* seedlings (related to Figure 4)**.** Seedlings were elicited with flg22 (left) or elf26 (right) supplemented indolokine A2 (**4**), A3 (**5**), B2 (**8**) and B3 (**9**). *n* = 5 biological replicates. Data are mean ± s.d. **P*< 0.05, ****P*< 0.001. Two-tailed t-test.

Table S1.[1]H and [13]C NMR data of **1**and **5** isolated from *X. bovienii* (related to Figure 1).

	1[a]		**5**[b]	
pos.	δ_H	δ_C	δ_H	δ_C
	[ppm, mult. (*J* in Hz)]		[ppm, mult.]	
1	7.79, d (2.8)	131.9	9.32, s	139.7
2		111.3		113.8
3		124.7		127.9
4	7.40, d (8.0)	119.9	8.37, m	122.8
5	7.12, brt (7.5)	120.4	7.27, m	123.6
6	7.18, brt (7.5)	122.3	7.28, m	124.6
7	7.46, d (8.1)	112.4	7.52, m	112.9
8		137.1		137.9
9		135.7		178.4
10		130.2		171.6
11		164.1	8.49, s	129.9
12	3.62, s	23.5		151.6
13		137.0		163.3
14		162.5	4.19, s	41.8
15	3.97, d (6.1)	41.2		172.9
16		171.0		
1-NH	11.89, brs			
14-NH	9.09, t (6.1)			

[a]Measured in DMSO-d_6

[b]Measured in methanol-d_4



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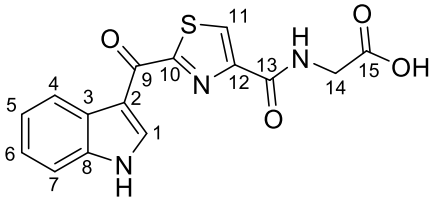

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