

## SUPPLEMENTARY MATERIAL

### Isolation and synthesis of a new benzylated alkamide from the roots of *Lepidium meyenii*

Yan-Qing Ye,<sup>a</sup> Zu-Hong Ma,<sup>a</sup> Qiao-Fen Yang,<sup>a</sup> Yan-Qi Sun,<sup>a</sup> Rui-Qi Zhang,<sup>b</sup> Run-Fang Wu,<sup>b</sup> Xin-Ren,<sup>b</sup> Li-Juan Mu,<sup>b</sup> Zhi-Yong Jiang,<sup>b,\*</sup> and Min Zhou<sup>a,b,\*</sup>

**Abstract:** A new benzylated alkamide, *N*-(3,4-dimethoxybenzyl)-9*Z*-oleamide (**1**), along with two known ones (**2** and **3**) were isolated from the roots of *Lepidium meyenii* collected from Lijiang, Yunnan Province of China. Their structures were elucidated by extensive spectroscopic analyses and the new compound further confirmed by a one-step synthesis. All the isolated alkamides were evaluated for their cytotoxicity against five human cancer cell lines. However, no significant activities were detected at concentrations up to 40  $\mu$ M.

## Contents of Supporting Information

No.	Contents	Pages
Figure S1	Selected HMBC correlations of <b>1</b> and its possible structures <b>1a–1d</b> .	3
Figures S2-S7	1D NMR, HSQC, HMBC, COSY, and ROESY spectra of isolated <b>1</b>	3-6
Figures S8-S9	1D NMR spectra of synthetic <b>1</b>	6-7

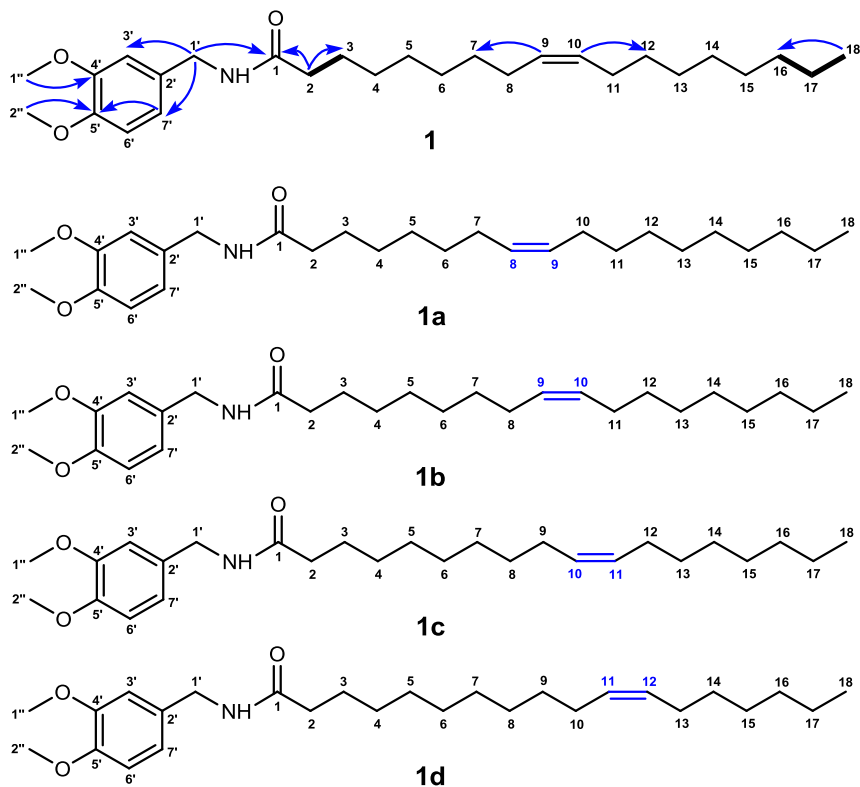


Figure S1. Selected HMBC (H  $\rightarrow$  C) correlations of compound **1** and its possible structures **1a**–**1d**.

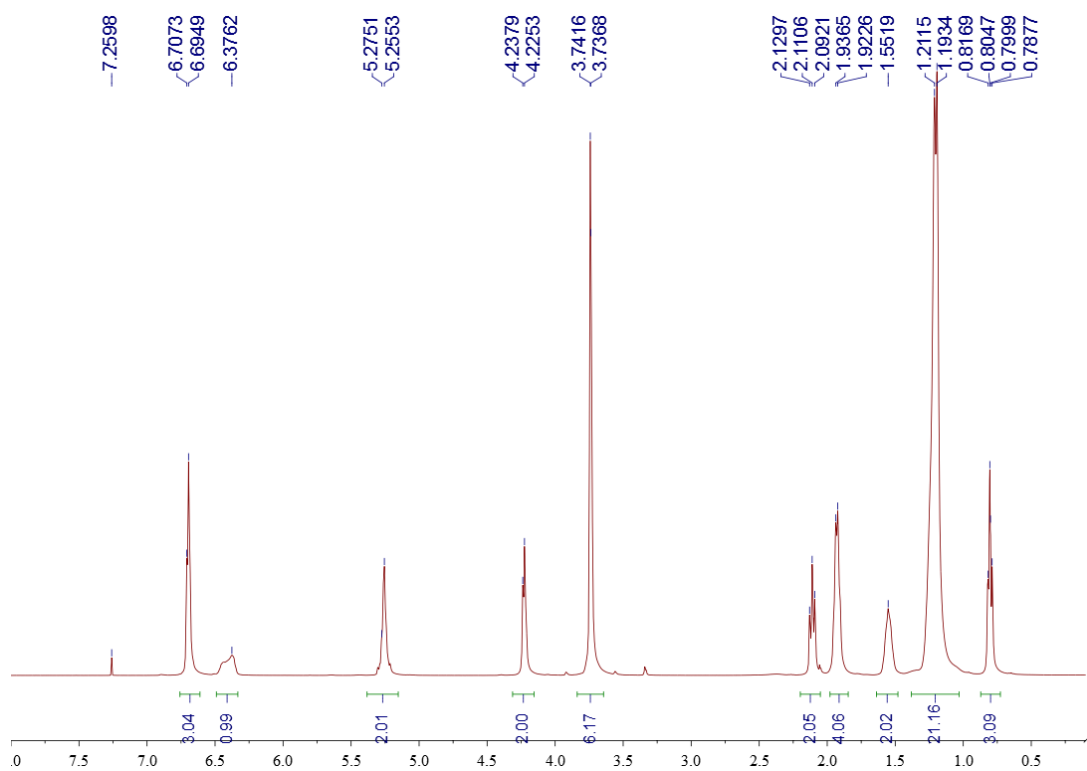


Figure S2.  $^1\text{H}$  NMR spectrum of isolated *N*-(3,4-dimethoxybenzyl)-9*Z*-oleamide (**1**)

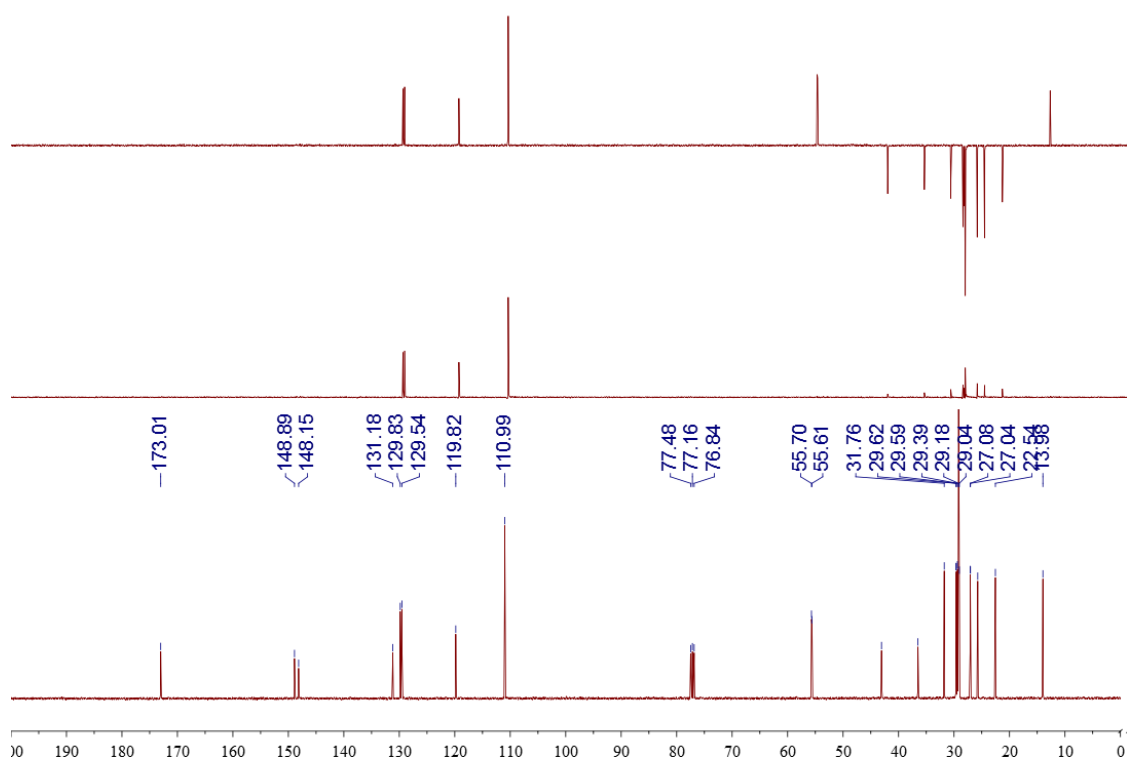


Figure S3.  $^{13}\text{C}$  NMR spectrum of isolated *N*-(3,4-dimethoxybenzyl)-9*Z*-oleamide (**1**)

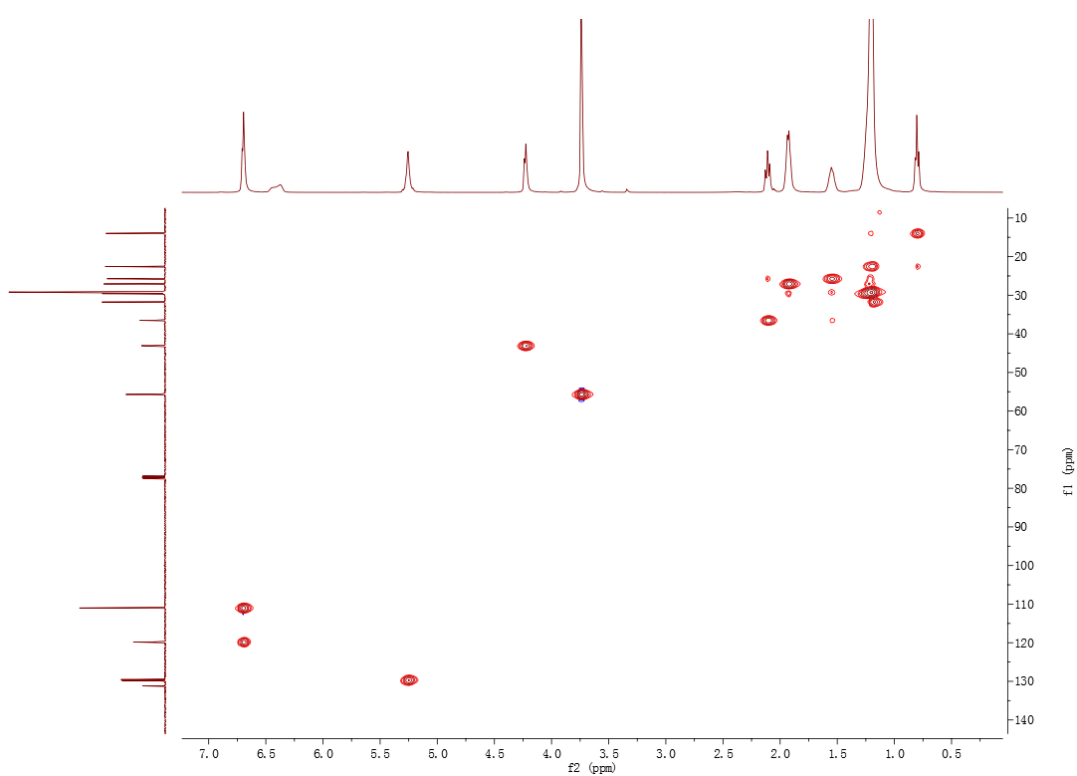


Figure S4. HSQC spectrum of isolated *N*-(3,4-dimethoxybenzyl)-9*Z*-oleamide (**1**)

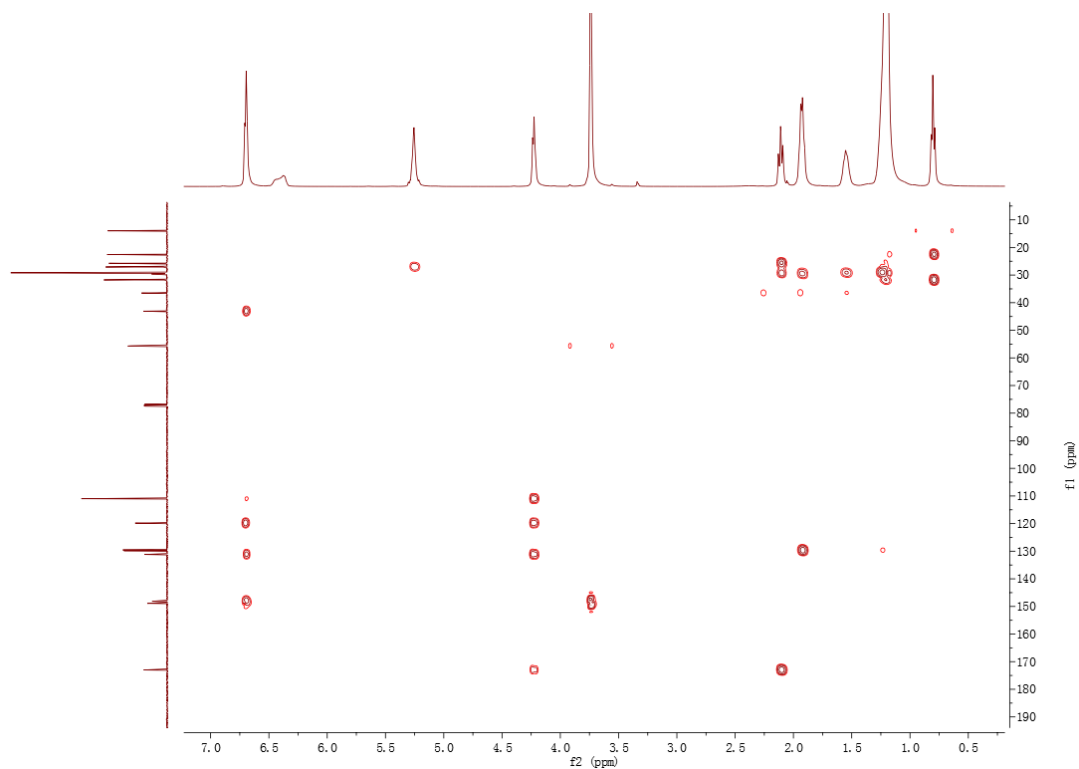


Figure S5. HMBC spectrum of isolated *N*-(3,4-dimethoxybenzyl)-9*Z*-oleamide (**1**)

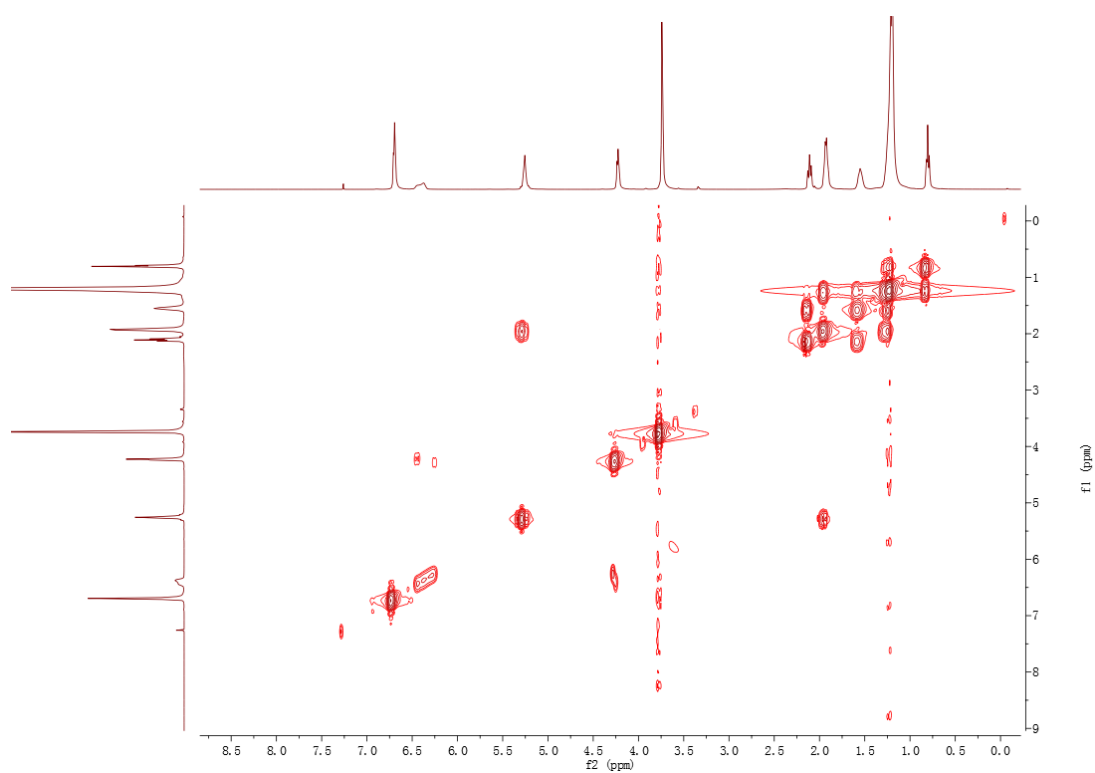


Figure S6.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of isolated *N*-(3,4-dimethoxybenzyl)-9*Z*-oleamide (**1**)

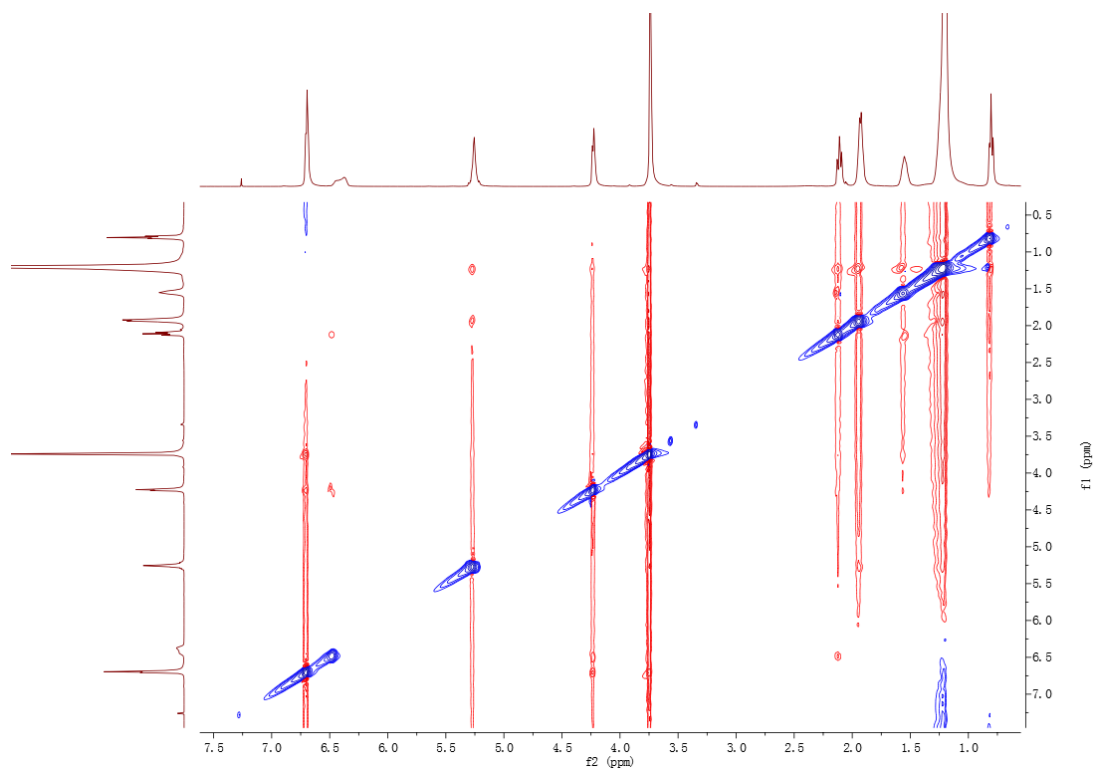


Figure S7. ROESY spectrum of isolated *N*-(3,4-dimethoxybenzyl)-9*Z*-oleamide (**1**)

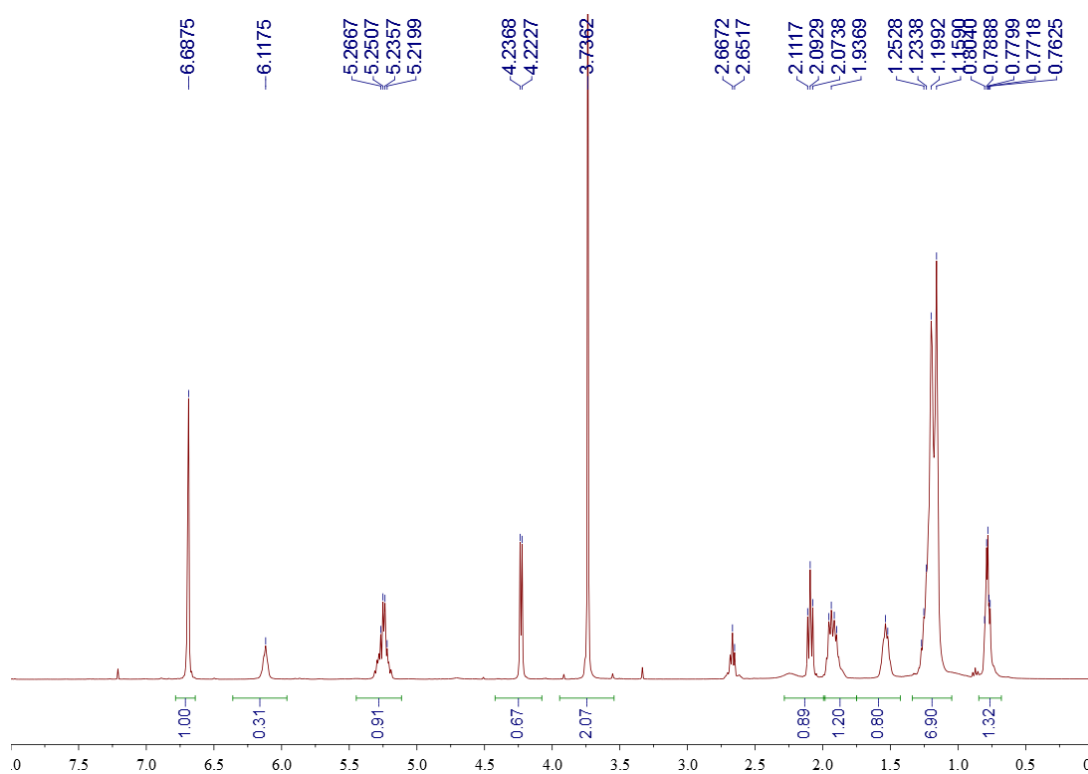


Figure S8.  $^1\text{H}$  NMR spectrum of synthetic *N*-(3,4-dimethoxybenzyl)-9*Z*-oleamide (**1**)

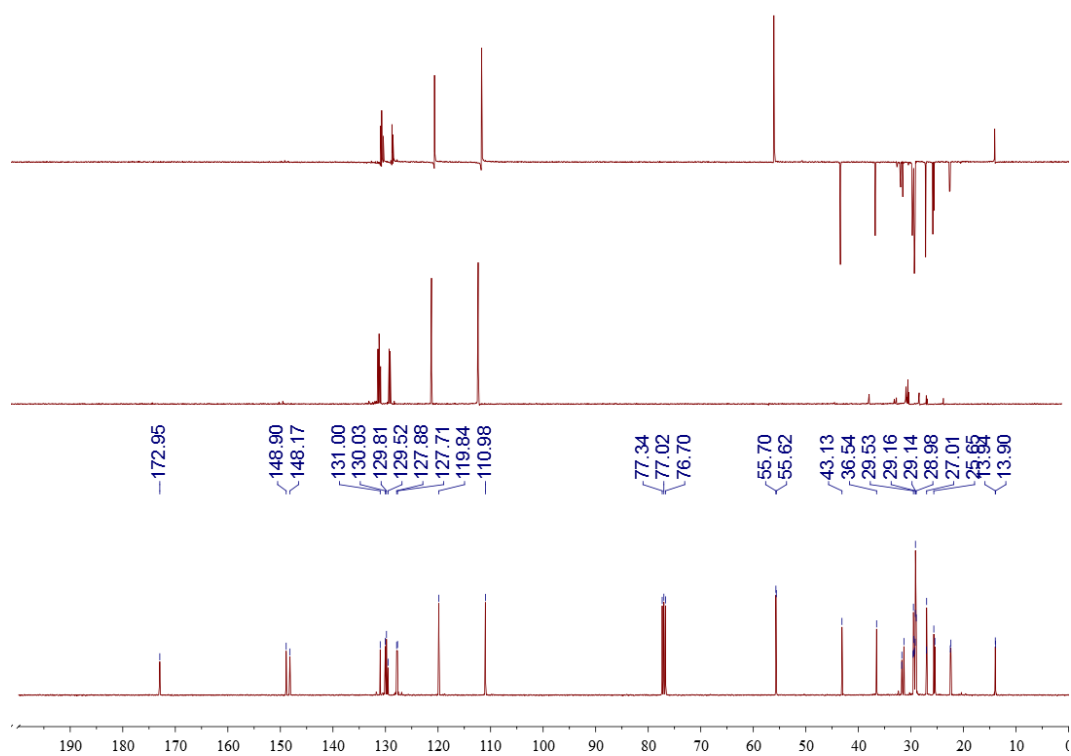


Figure S9.  $^{13}\text{C}$  NMR spectrum of synthetic *N*-(3,4-dimethoxybenzyl)-9*Z*-oleamide (**1**)