

# Design, Synthesis, and Spectral Properties of Novel 2-Mercaptobenzothiazole Derivatives

Agnieszka Skotnicka \*, Janina Kabatc-Borcz

Faculty of Chemical Technology and Engineering, Bydgoszcz University of Science and Technology, Seminaryjna 3, 85-326 Bydgoszcz, Poland

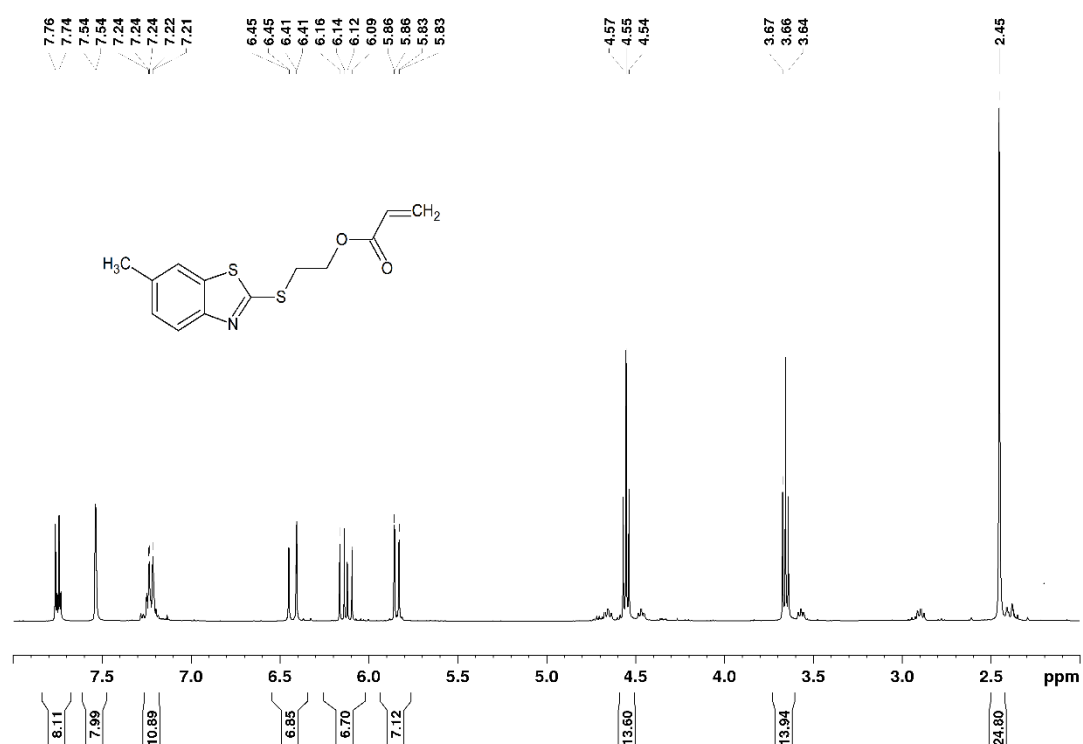
\*Correspondence: askot@pbs.edu.pl

## Supporting Information

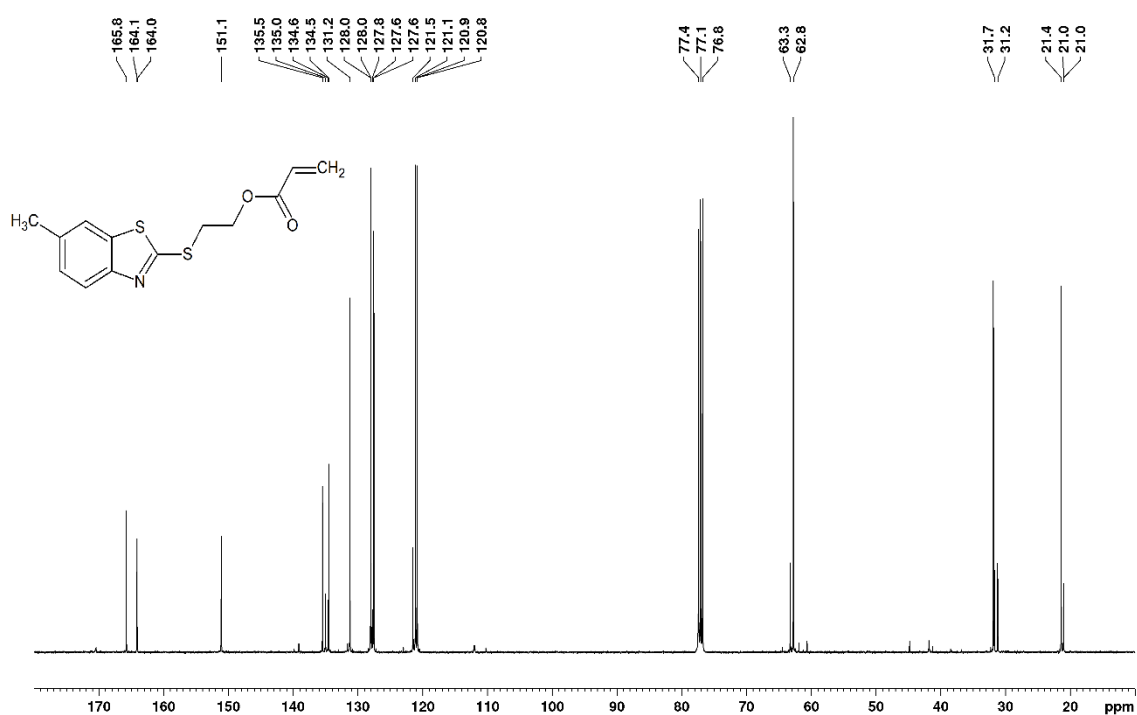
### Table of contents

S1	<sup>1</sup> H NMR spectrum (400 MHz) of 2-(2-(6-methylbenzothiazolyl)thio)ethyl acrylate ( <b>1</b> ) in CDCl <sub>3</sub>	s 3
S2	<sup>13</sup> C NMR spectrum (400 MHz) of 2-(2-(6-methylbenzothiazolyl)thio)ethyl acrylate ( <b>1</b> ) in CDCl <sub>3</sub> .....	s 3
S3	<sup>1</sup> H NMR spectrum (400 MHz) of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>2</b> ) in CDCl <sub>3</sub>	s 4
S4	<sup>13</sup> C NMR spectrum (400 MHz) of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>2</b> ) in CDCl <sub>3</sub>	s 4
S5	<sup>1</sup> H NMR spectrum (400 MHz) of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>3</b> ) in CDCl <sub>3</sub>	s 5
S6	<sup>13</sup> C NMR spectrum (400 MHz) of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>3</b> ) in CDCl <sub>3</sub>	s 5
S7	<sup>1</sup> H NMR spectrum (400 MHz) of 2-(2-(6-methylbenzothiazolyl)thio)ethyl methacrylate ( <b>4</b> ) in CDCl <sub>3</sub> .....	s 6
S8	<sup>13</sup> C NMR spectrum (400 MHz) of 2-(2-(6-methylbenzothiazolyl)thio)ethyl methacrylate ( <b>4</b> ) in CDCl <sub>3</sub> .....	s 6
S9	<sup>1</sup> H NMR spectrum (400 MHz) of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl methacrylate ( <b>5</b> ) in CDCl <sub>3</sub> .....	s 7
S10	<sup>13</sup> C NMR spectrum (400 MHz) of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl methacrylate ( <b>5</b> ) in CDCl <sub>3</sub> .....	s 7
S11	<sup>1</sup> H NMR spectrum (400 MHz) of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl methacrylate ( <b>6</b> ) in CDCl <sub>3</sub> .....	s 8
S12	<sup>13</sup> C NMR spectrum (400 MHz) of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl methacrylate ( <b>6</b> ) in CDCl <sub>3</sub> .....	s 8
S13	Chromatogram of 2-(2-(6-methylbenzothiazolyl)thio)ethyl acrylate ( <b>1</b> ) .....	s 9
S14	Mass spectrum of 2-(2-(6-methylbenzothiazolyl)thio)ethyl acrylate ( <b>1</b> ) .....	s 9
S15	Chromatogram of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>2</b> ) .....	s 9
S16	Mass spectrum of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>2</b> ) .....	s 9
S17	Chromatogram of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>3</b> ) .....	s 10
S18	Mass spectrum of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>3</b> ) .....	s 10
S19	Chromatogram of 2-(2-(6-methylbenzothiazolyl)thio)ethyl methacrylate ( <b>4</b> ) .....	s 10

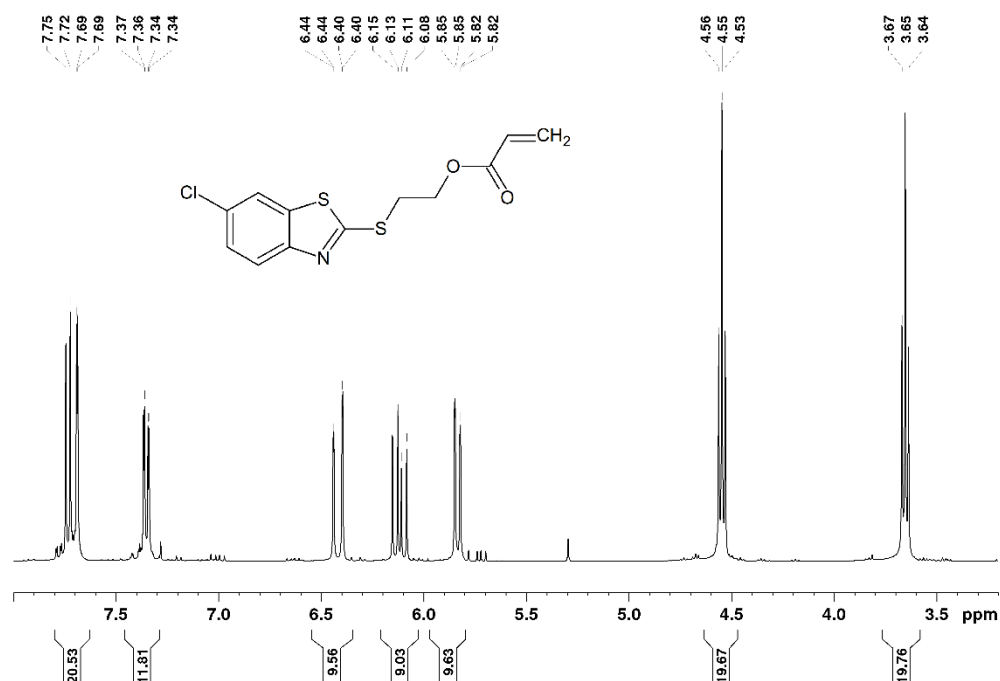
S20	Mass spectrum of 2-(2-(6-methylbenzothiazolyl)thio)ethyl methacrylate ( <b>4</b> ) .....	s 10
S21	Chromatogram of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>5</b> ) .....	s 11
S22	Mass spectrum of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>5</b> ) .....	s 11
S23	Chromatogram of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>6</b> ) .....	s 11
S24	Mass spectrum of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl acrylate ( <b>6</b> ) .....	s 11



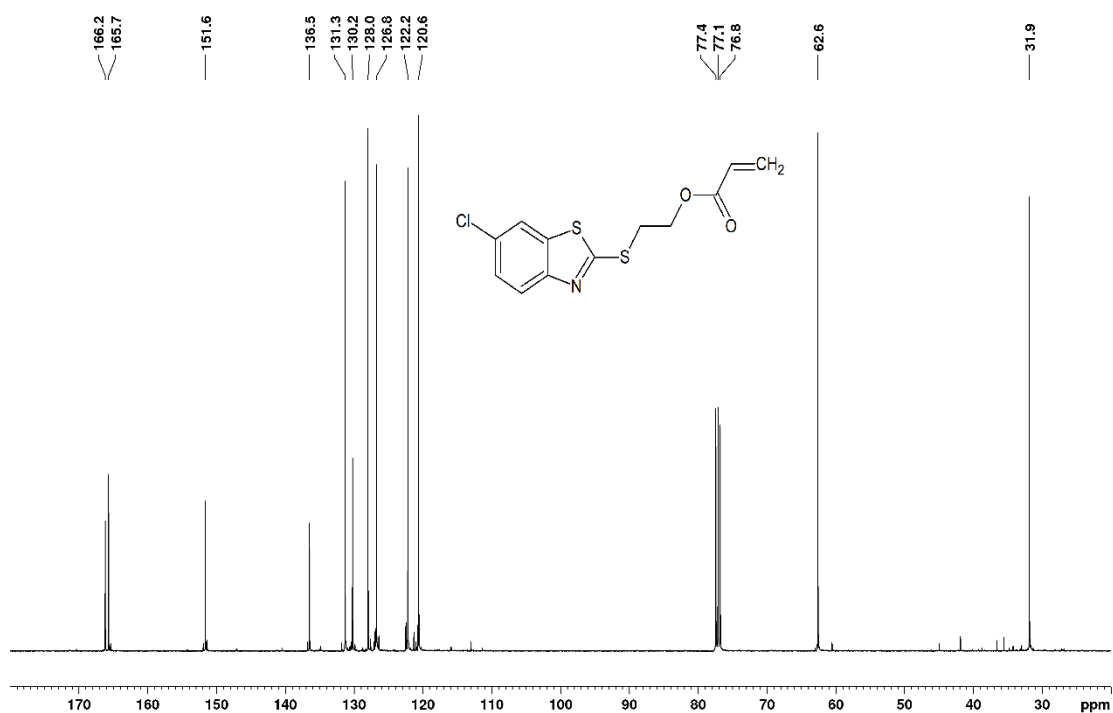
**Figure S1.** <sup>1</sup>H NMR spectrum (400 MHz) of 2-(2-(6-methylbenzothiazolyl)thio)ethyl acrylate (1) in CDCl<sub>3</sub>.



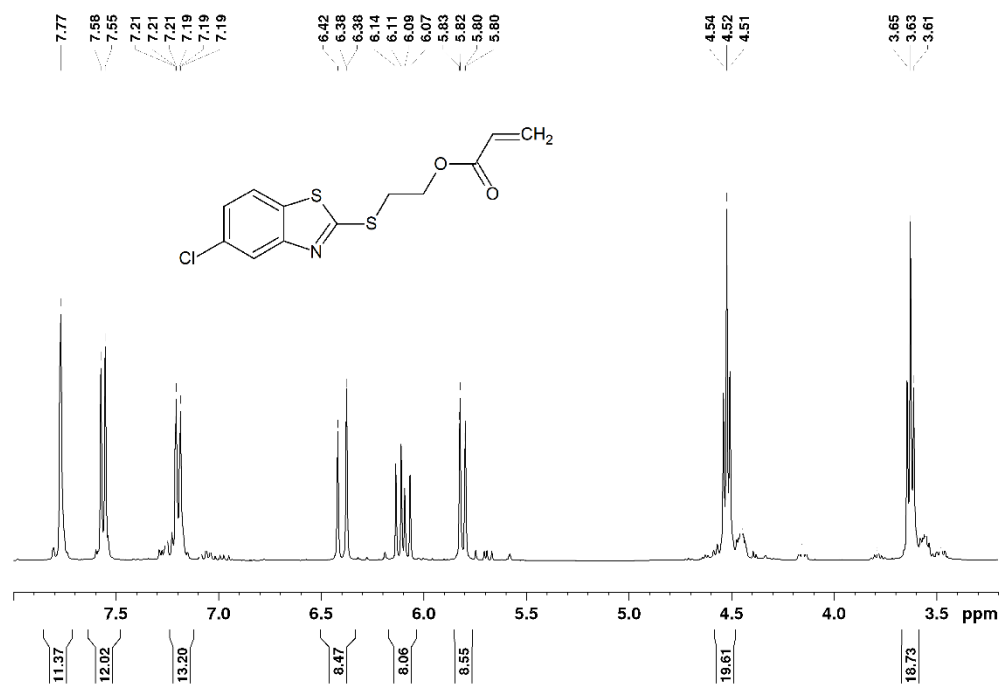
**Figure S2.** <sup>13</sup>C NMR spectrum (400 MHz) of 2-(2-(6-methylbenzothiazolyl)thio)ethyl acrylate (1) in CDCl<sub>3</sub>.



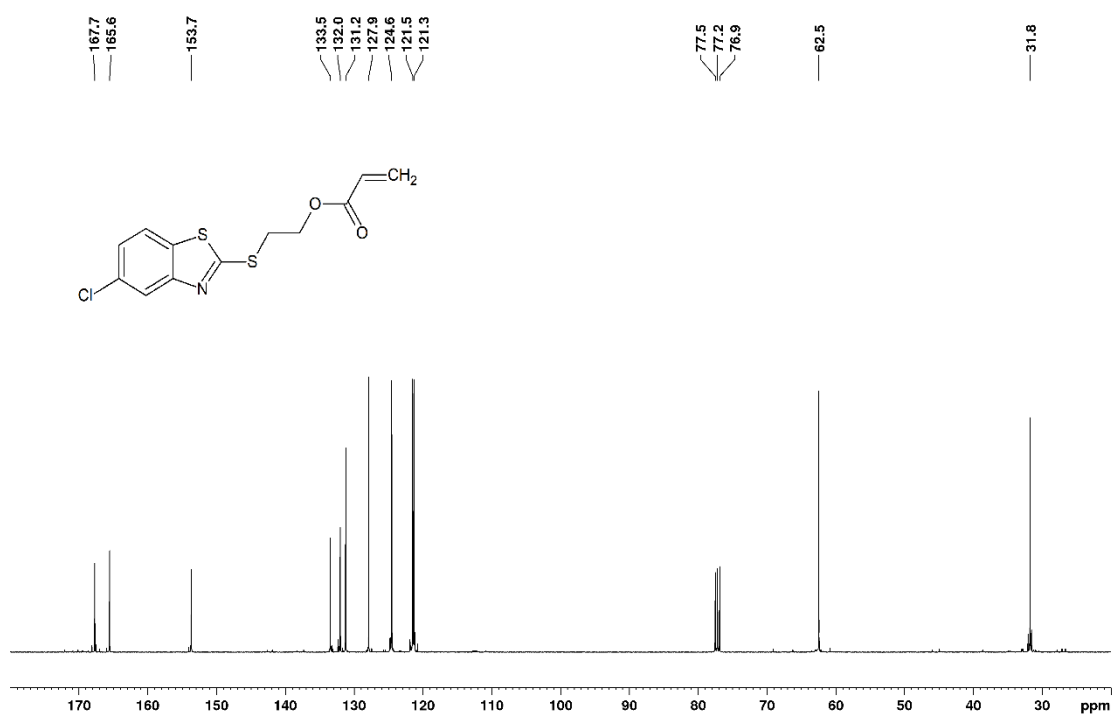
**Figure S3.** <sup>1</sup>H NMR spectrum (400 MHz) of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl acrylate (**2**) in CDCl<sub>3</sub>.



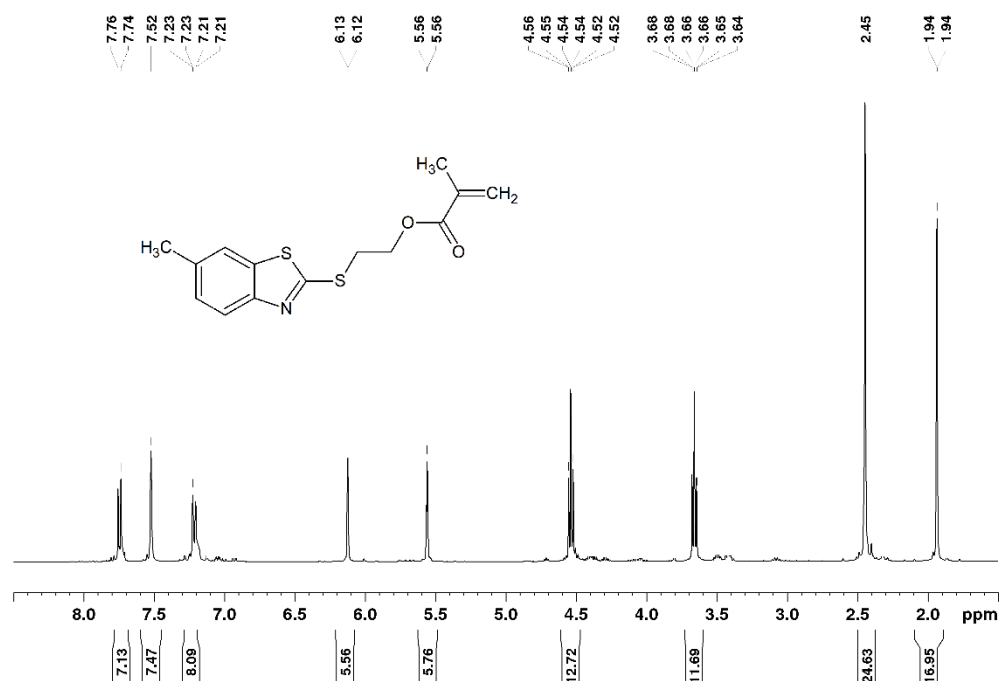
**Figure S4.** <sup>13</sup>C NMR spectrum (400 MHz) of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl acrylate (**2**) in CDCl<sub>3</sub>.



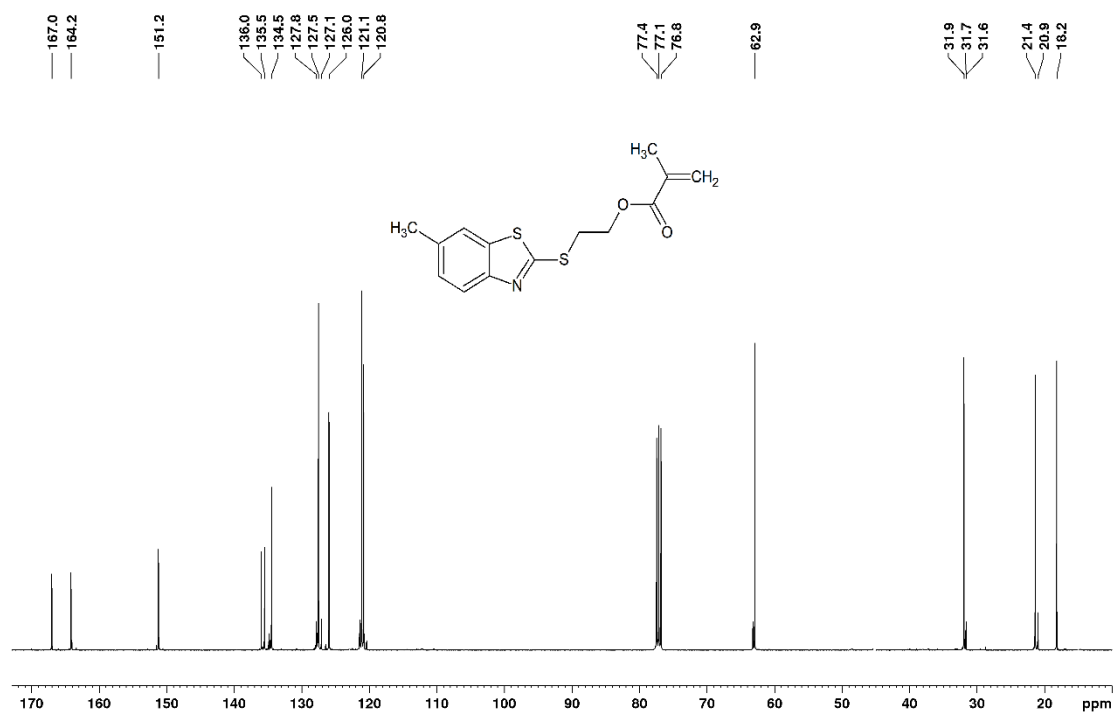
**Figure S5.** <sup>1</sup>H NMR spectrum (400 MHz) of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl acrylate (**3**) in CDCl<sub>3</sub>.



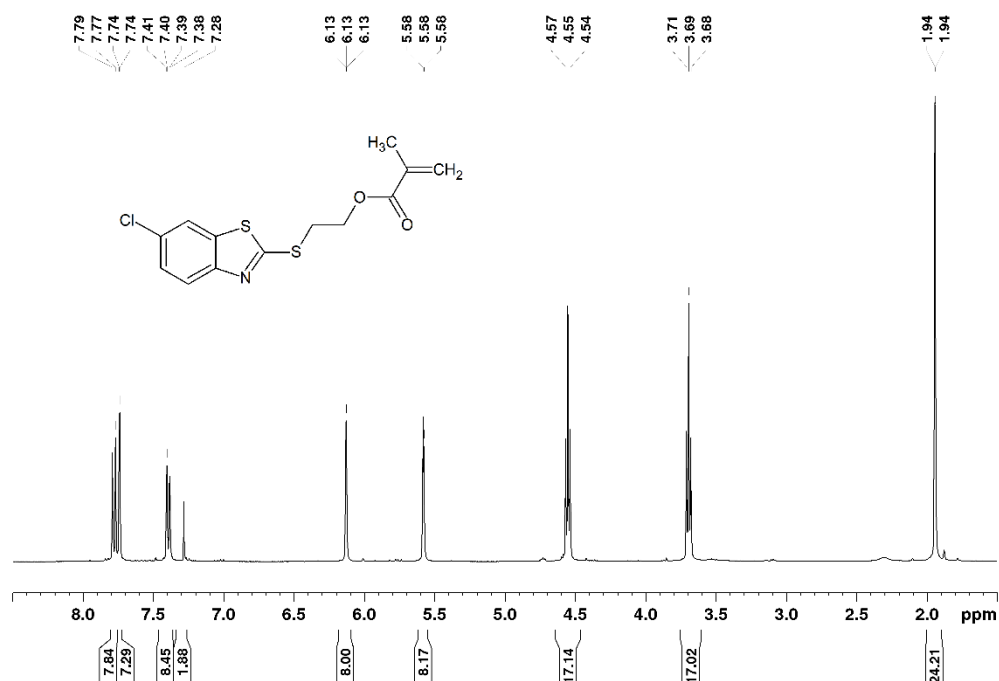
**Figure S6.** <sup>13</sup>C NMR spectrum (400 MHz) of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl acrylate (**3**) in CDCl<sub>3</sub>.



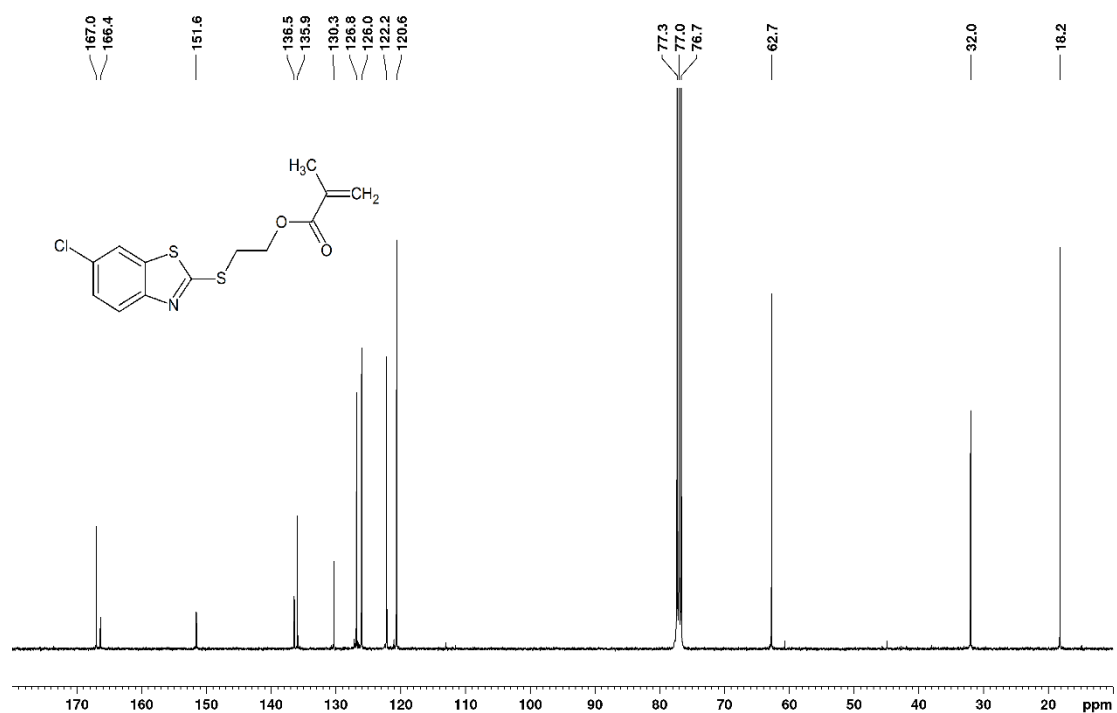
**Figure S7.** <sup>1</sup>H NMR spectrum (400 MHz) of 2-(2-(6-methylbenzothiazolyl)thio)ethyl methacrylate (4) in CDCl<sub>3</sub>.



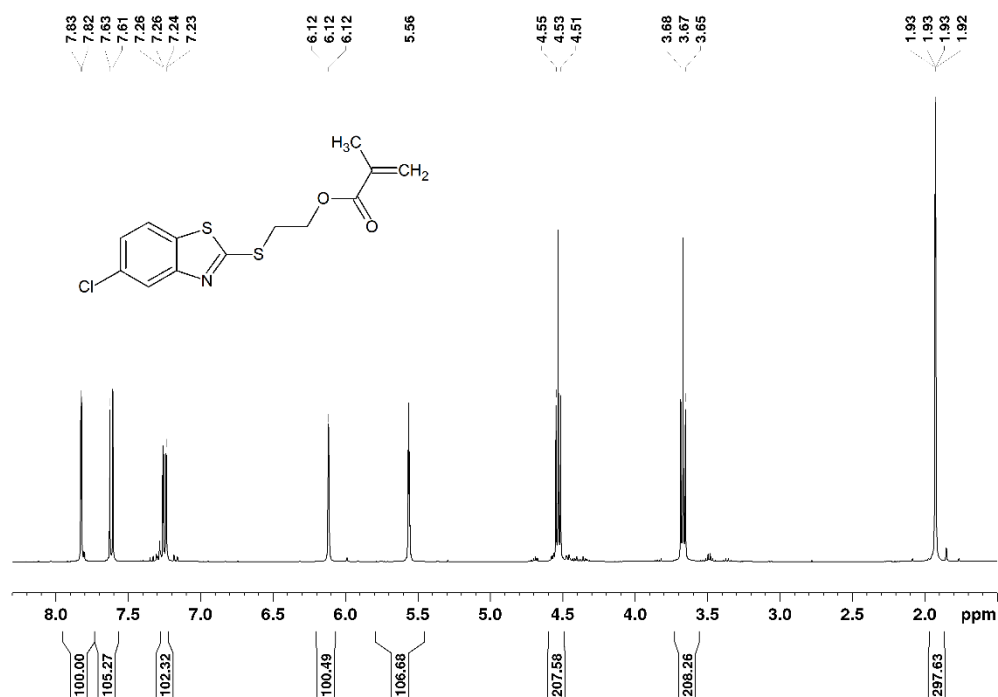
**Figure S8.** <sup>13</sup>C NMR spectrum (400 MHz) of 2-(2-(6-methylbenzothiazolyl)thio)ethyl methacrylate (4) in CDCl<sub>3</sub>.



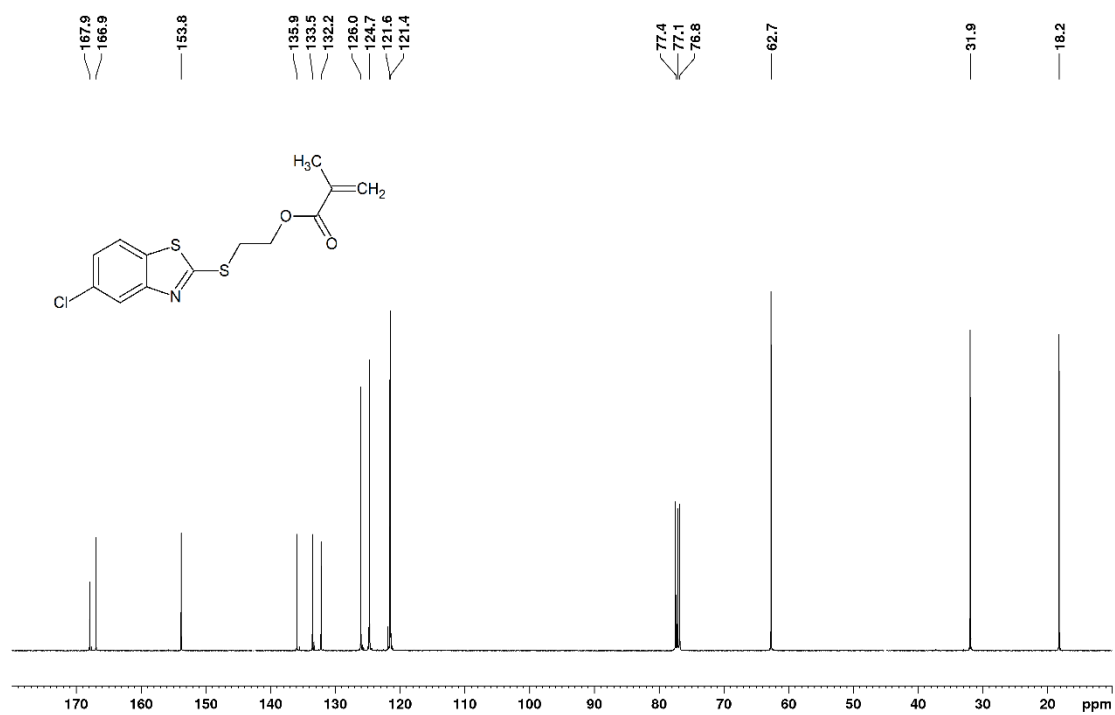
**Figure S9.** <sup>1</sup>H NMR spectrum (400 MHz) of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl methacrylate (**5**) in CDCl<sub>3</sub>.



**Figure S10.** <sup>13</sup>C NMR spectrum (400 MHz) of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl methacrylate (**5**) in CDCl<sub>3</sub>.

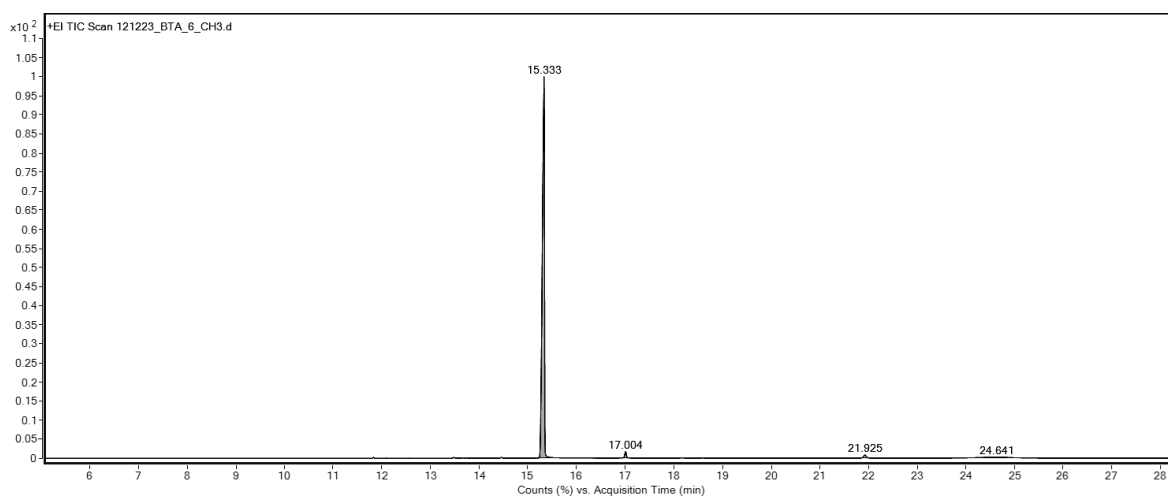


**Figure S11.** <sup>1</sup>H NMR spectrum (400 MHz) of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl methacrylate (**6**) in CDCl<sub>3</sub>.

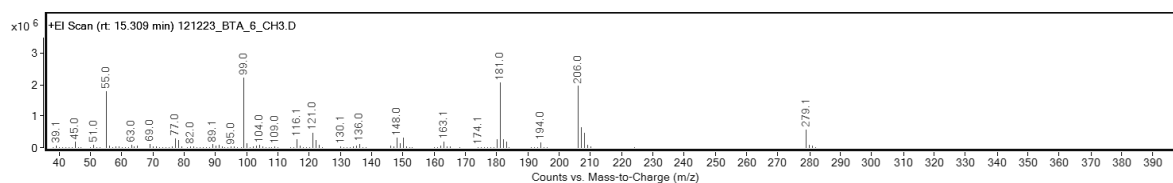


**Figure S12.** <sup>13</sup>C NMR spectrum (400 MHz) of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl methacrylate (**6**) in CDCl<sub>3</sub>.

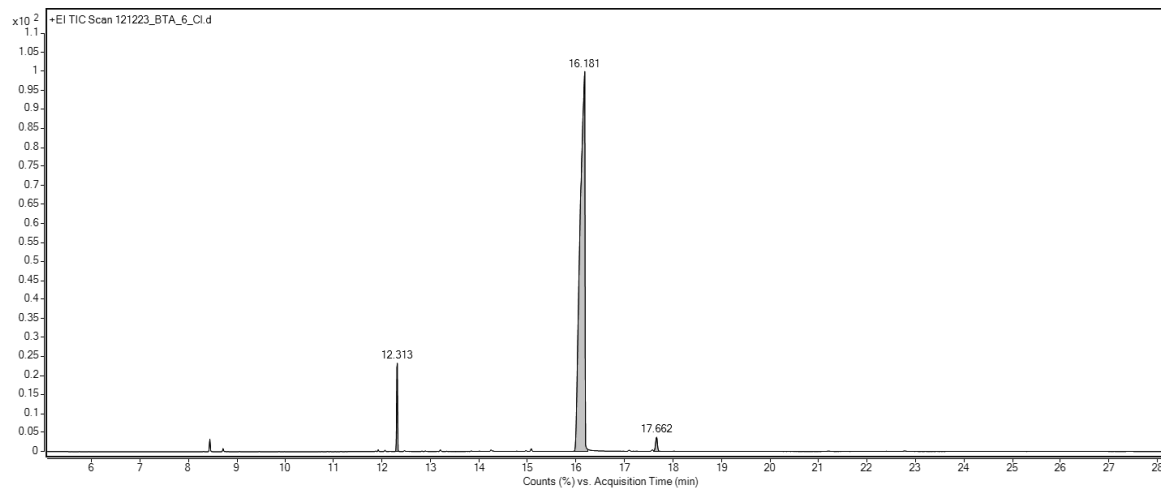




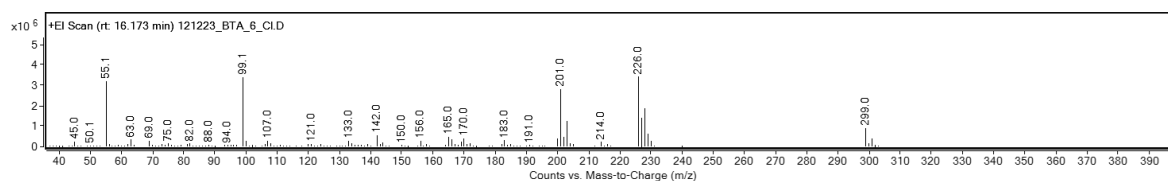
**Figure S13.** Chromatogram of 2-(2-(6-methylbenzothiazolyl)thio)ethyl acrylate (**1**).



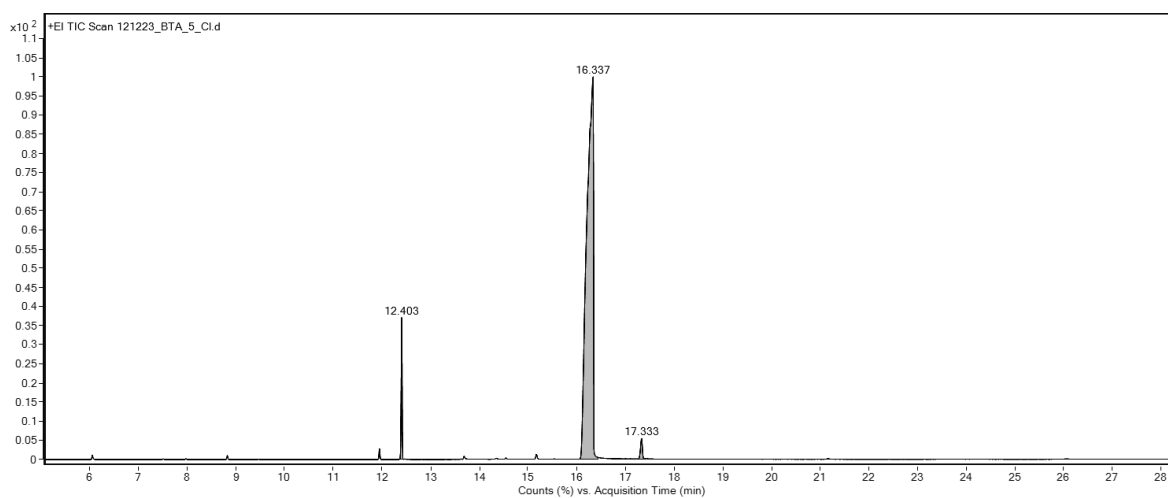
**Figure S14.** Mass spectrum of 2-(2-(6-methylbenzothiazolyl)thio)ethyl acrylate (**1**).



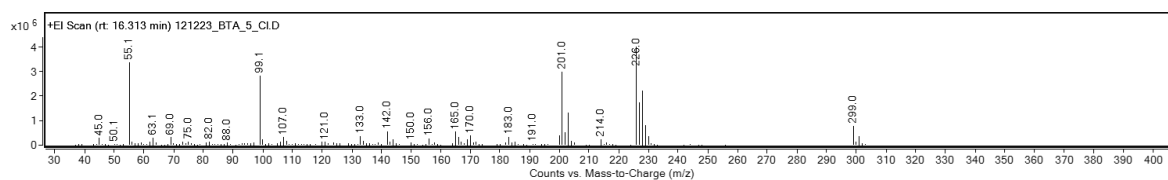
**Figure S15.** Chromatogram of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl acrylate (**2**).



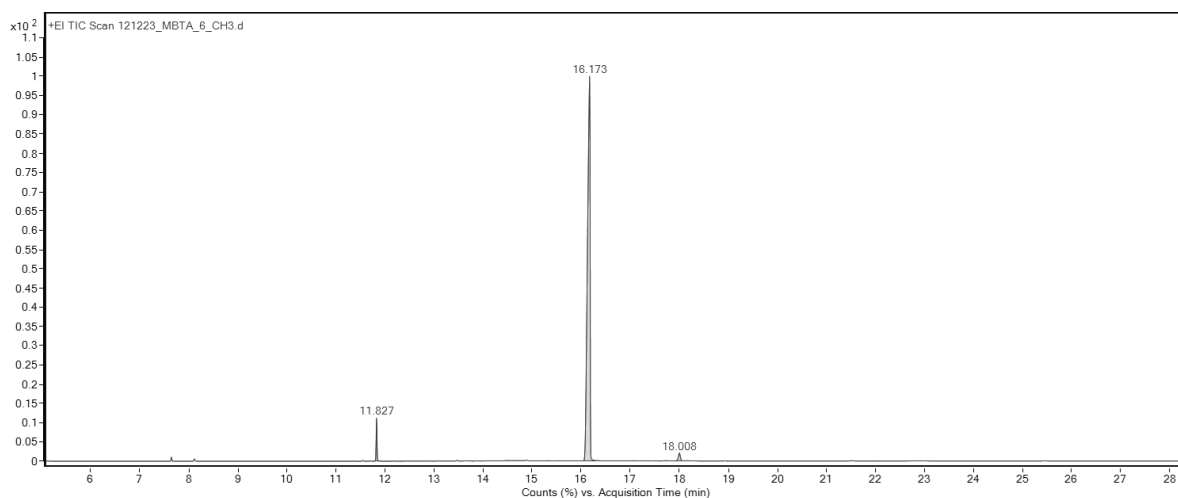
**Figure S16.** Mass spectrum of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl acrylate (**2**).



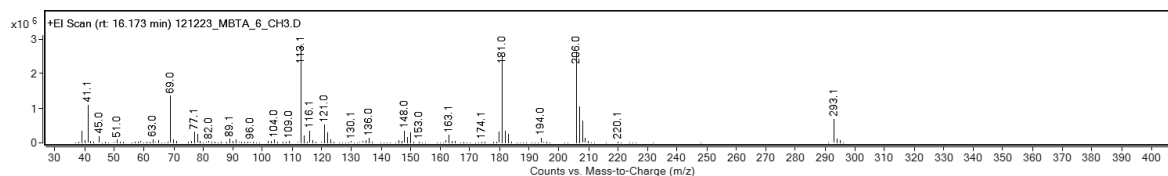
**Figure S17.** Chromatogram of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl acrylate (**3**).



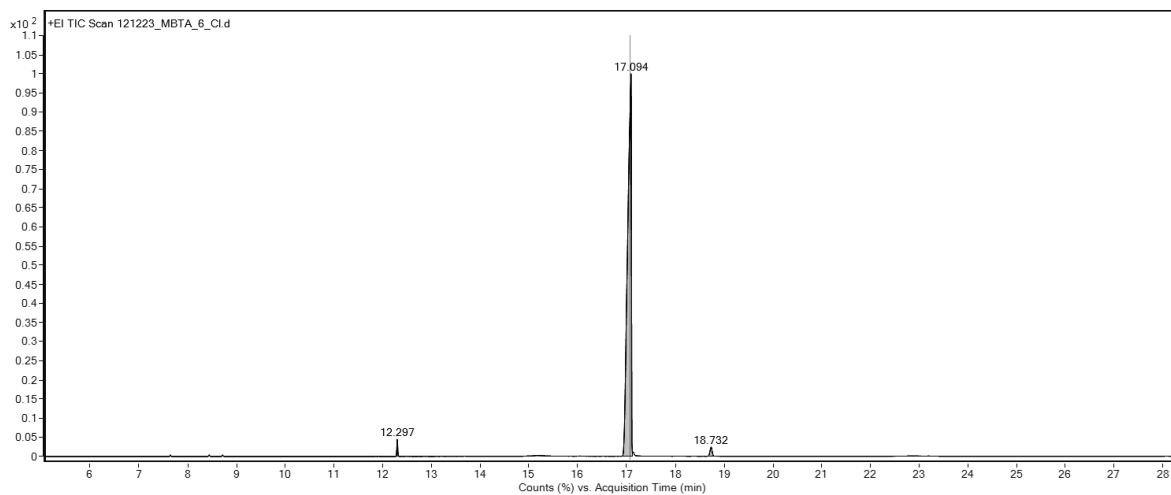
**Figure S18.** Mass spectrum of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl acrylate (**3**).



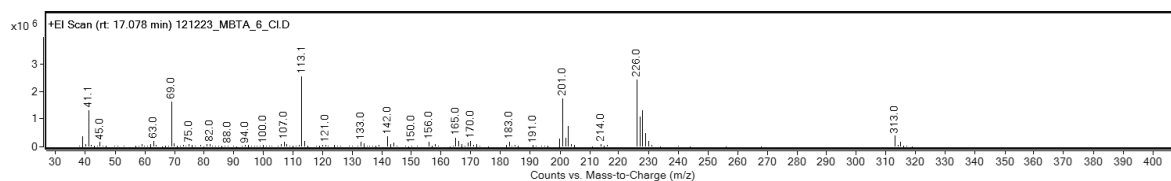
**Figure S19.** Chromatogram of 2-(2-(6-methylbenzothiazolyl)thio)ethyl methacrylate (**4**).



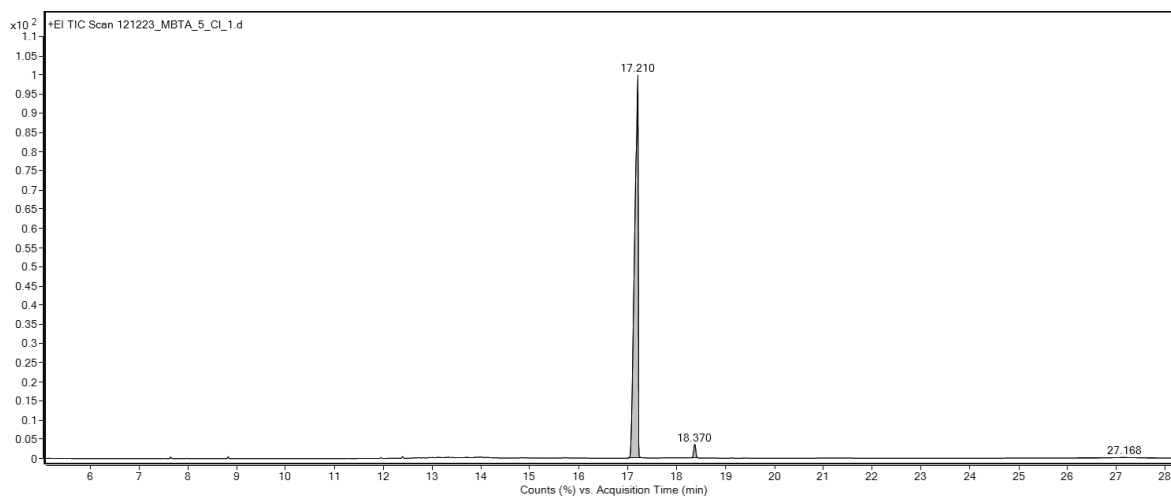
**Figure S20.** Mass spectrum of 2-(2-(6-methylbenzothiazolyl)thio)ethyl methacrylate (**4**).



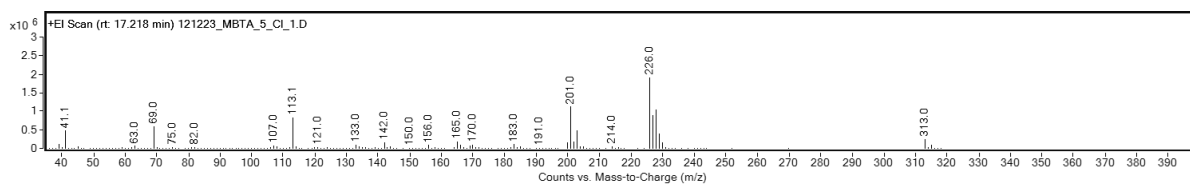
**Figure S21.** Chromatogram of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl methacrylate (**5**).



**Figure S22.** Mass spectrum of 2-(2-(6-chlorobenzothiazolyl)thio)ethyl methacrylate (**5**).



**Figure S23.** Chromatogram of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl methacrylate (**6**).



**Figure S24.** Mass spectrum of 2-(2-(5-chlorobenzothiazolyl)thio)ethyl methacrylate (**6**).