

SUPPLEMENTARY MATERIAL TO
**Synthesis of novel *N*-substituted benzyl *N*-(1,3-benzothiazol-2-yl)
acetamides and their *in vitro* antibacterial activities**

HANDAN CAN SAKARYA^{1*}, KAMURAN GÖRGÜN¹ and CANSU FILIK İŞÇEN²

¹Eskişehir Osmangazi University, Faculty of Science, Department of Chemistry, 26480,

Eskişehir, Turkey and ²Eskişehir Osmangazi University, Faculty of Education,

Department of Elementary Education, 26480 Eskişehir, Turkey

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N-[2-Methylphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3a). Yield: 70%. M.p. 132-133°. FT-IR: 3042, 1610, 1597, 1530, 1505 (Fig.S1). ¹H NMR(500 MHz, DMSO-d₆, δ) : 2.45 (s, 3H, CH₃-Benzothiazole), 2.65 (s, 3H, Ar-CH₃), 7.34 (dd, 1H, 4J_{12,14}=1.28 Hz, J_{11,13}=8.23 Hz, H₁₂), 7.38 (d, 1H, J_{14,15}=7.81 Hz, H₁₅), 7.39 (t, 1H, J_{12,14}=8.93 Hz, H₁₃), 7.53 (dt, 1H, 4J_{H14-H12}=1.31 Hz, J_{13,15}=7.42 Hz, H₁₄), 7.83 (s, 1H, H₇), 7.84 (d, 1H, J_{5,4}=8.44 Hz, H₅), 8.12 (d, 1H, J_{4,5}=7.81 Hz, H₄), 9.34 (s, 1H, -CH=N-) (Fig.S2) (The numbering of protons of the compound is given in Fig. 1). ¹³C NMR(125 MHz, DMSO-d₆, δ): 19.07, 21.24, 117.88, 118.67, 121.28, 125.83, 126.45, 126.88, 127.04, 128.68, 130.90, 131.15, 136.48, 138.58, 150.54, 164.16. Anal. Calcd for C₁₆H₁₄N₂S: C 72.15, H 5.30, N 10.52, S 12.04 %; found: C 72.00, H 5.35, N 10.54, S 11.96 %.

N-[2-Methoxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3b). Yield: 76%. M.p. 134-136°. FT-IR: 3045, 1615, 1595, 1551 (Fig.S3). ¹H NMR(500 MHz, DMSO-d₆, δ) : 2.46 (s, 3H, CH₃-Benzothiazole), 3.96(s, 3H, Ar-OCH₃), 7.14 (t, 1H, J_{15,14}=7.51 Hz, H₁₄), 7.24 (d, 1H, J_{13,12}=8.41 Hz, H₁₂), 7.35 (dd, 1H, 4J_{5,7}=1.34 Hz, J_{4,5}=8.31 Hz, H₅), 7.66 (dt, 1H, 4J_{13,15}=1.75 Hz, J_{12,14}=7.24 Hz, H₁₃), 7.83 (d, 1H, J_{4,5}=8.30 Hz, H₄), 7.85 (s, 1H, H₇), 8.11 (dd, 1H, 4J_{15,13}=1.65 Hz, J_{15,14}=7.76 Hz, H₁₅), 9.30 (s, 1H, -CH=N-)(Fig.S4 and fig. S5). ¹³C NMR (125 MHz, DMSO-d₆, δ): 21.21, 56.53, 112.93, 121.50, 122.35, 122.71, 122.77, 128.03, 128.56, 134.62, 135.43, 136.11, 149.86, 161.08, 161.73, 171.33. ESI-MS m/z= Calculated for (C₁₆H₁₄N₂SO + H⁺) 283.1, observed 283.18 (Fig.S8). Anal. Calcd for C₁₆H₁₄N₂SO: C 68.06, H 5.00, N 9.92, S 11.36 %. Found: C 68.20, H 5.20, N 9.98, S 11.35 %.

* Corresponding author. E-mail: hsakarya@ogu.edu.tr

N-[2-hydroxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3c). Yield: 90%. M.p. 137-138°. FT-IR: 3360, 3040, 1620, 1583, 1570, 1545 (Fig.S9). ¹H NMR(500 MHz, DMSO-d₆, δ): 2.44 (s, 3H, CH₃-Benzothiazole); 7.01(d, 1H, J_{15,13}=7.48 Hz H₁₄), 7.04 (d, 1H, J_{13,12}=8.14 Hz, H₁₂), 7.34 (d, 1H, J_{5,4}=8.43 Hz, H₄), 7.52 (dt, 1H, 4J_{13,15}=1.27 Hz, J_{12,14}=8.40 Hz, H₁₃), 7.83 (d, 1H, J_{4,5}=8.20 Hz, H₅), 7.86 (s, 1H, H₇), 7.93 (dd, 1H, 4J_{15,13}=1.21 Hz, J_{15,14}=7.80 Hz, H₁₅), 9.45 (s, 1H, -CH=N-), 11.5 (s, 1H, PhOH)(Fig.S10 and S11). ¹³C NMR(125 MHz, DMSO-d₆, δ): 21.58, 117.41, 120.06, 120.31, 122.40, 122.70, 128.61, 131.66, 134.47, 135.62, 135.98, 149.73, 160.98, 166.04, 169.73 (Fig.S12). Anal. Calcd. for C₁₅H₁₂N₂O₂S: C 67.14, H 4.51, N 10.44, S 11.95 %. Found: C 67.10, H 4.56, N 10.49, S 11.40 %.

N-[4-hydroxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3d). Yield: 72%. M.p. 136-138°. FT-IR: 3350, 3044, 1618, 1585, 1572, 1543. ¹H NMR(500 MHz, DMSO-d₆, δ): 2.40 (s, 3H, CH₃-Benzothiazole), 6.96 (d, 2H, J_{11,13}=8.55 Hz, H₁₂ and H₁₄), 7.30 (d, 1H, J_{5,4}=8.11 Hz, H₄), 7.77 (d, 1H, J_{4,5}=8.45 Hz, H₅), 7.79 (s, 1H, H₇), 7.94 (d, 2H, J_{12,14}=8.56 Hz, H₁₁ and H₁₅), 9.02 (s, 1H, -CH=N-), 10.5 (s, 1H, Ar-OH)(Fig.S13). ¹³C NMR(125 MHz, DMSO-d₆, δ): 21.54, 116.63, 122.27, 122.36, 126.37, 128.34, 133.08, 134.36, 135.07, 149.92, 163.24, 166.49, 171.41(Fig.S14). Anal. Calcd. for C₁₅H₁₂N₂O₂S: C 67.14, H 4.51, N 10.44, S 11.95 %. Found: C 67.02, H 4.54, N 10.40, S 11.45 %.

N-(2-methylbenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4a). Yield: 87%. M.p. 102-103°. FT-IR: 3412, 1605, 1594, 1571. ¹H NMR(500 MHz, DMSO-d₆, δ): 2.32 (s, 3H, CH₃-Benzothiazole), 2.34 (s, 3H, Ar-CH₃), 4.55 (d, 2H, JCH₂-NH=5.44 Hz, Ar-CH₂NH-), 7.03 (dd, 1H, 4J_{5,7}=1.31 Hz, J_{4,5}=8.15 Hz, H₅), 7.18 (m, 3H, H₁₂, H-14 and H₁₅), 7.27 (d, 1H, J_{5,4}=8.11 Hz, H₄), 7.32 (d, 1H, J_{12,14}=7.29 Hz, H₁₃), 7.47 (s, 1H, H₇), 8.25 (t, 1H, JNH-CH₂=5.43 Hz, NHCH₂-Ar)(Fig.S15). ¹³C NMR(125 MHz, DMSO-d₆, δ): 19.12, 21.22, 45.92, 118.20, 121.35, 126.27, 126.99, 127.61, 128.28, 130.51, 130.98, 136.43, 137.05, 150.81, 165.78 (Fig.S16). ESI-MS m/z= Calculated for (C₁₆H₁₆N₂S + H⁺) 269.1, observed 269.1 (Fig.S19). Anal. Calcd for C₁₆H₁₆N₂S: C 71.60, H 6.01, N 10.44, S 11.95 %. Found: C 71.52, H 6.03, N 10.50, S 11.90 %.

N-(2-methoxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4b). Yield: 90%. M.p. 125-127°. FT-IR: 3430, 1608, 1567(Fig.S20). ¹H NMR(500 MHz, DMSO-d₆, δ): 2.31 (s, 3H, CH₃-Benzothiazole), 3.83 (s, 3H, Ar-OCH₃), 4.53 (d, 2H, JCH₂-NH=5.67 Hz, Ar-CH₂NH-), 6.92 (t, 1H, J_{15,13}=7.28 Hz, H₁₄), 7.02 (d, 2H, J_{12,13}=J_{4,5}=8.09 Hz, H₁₂ and H₄), 7.25 (d, 2H, J_{4,5} J_{12,14}=7.03 Hz, H₅ and H₁₅), 7.29 (t, 1H, J_{12,14}=7.13 Hz H₁₃), 7.46 (s, 1H, H₇); 8.22 (t, 1H, JNH-CH₂=5.67 Hz, NHCH₂-Ar) (Fig.S21 and S22). ¹³C NMR(125 MHz, DMSO-d₆, δ): 21.22, 42.89, 55.82, 111.06, 118.18, 120.62, 121.32, 126.79, 126.96, 128.46, 128.81, 130.44, 130.97, 150.83, 157.32, 166.00 (Fig.S23). ESI-MS m/z=

Calculated for (C₁₆H₁₆N₂SO + H⁺) 285.1, observed 285.1. Anal. Calcd for C₁₆H₁₆N₂SO: C 67.58, H 5.67, N 9.85, S 11.28 %. Found: C 67.28, H 4.58, N 9.86, S 10.40 %.

N-(2-hydroxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4c). Yield: 90%. M.p. 170-172°. FT-IR: 3525, 3409, 1595, 1570(Fig.S28). ¹H NMR(500 MHz, DMSO-d₆, δ): 2.32 (s, 3H, CH₃-Benzothiazole), 4.47 (d, 2H, JCH₂-NH=5.796 Hz, Ar-CH₂NH-), 6.74 (dt, 1H, 4J_{14,12}=0.79 Hz J_{15,13}=7.41 Hz, H₁₄), 6.86 (dd, 1H, 4J_{12,14}=0.65 Hz, J_{13,12}=7.64 Hz, H₁₂), 7.06 (dd, 1H, 4J_{15,13}=1.36 Hz, J_{14,15}=8.24 Hz, H₁₅), 7.10 (dt, 1H, 4J_{13,15}=1.61 Hz, J_{12,14}=7.69 Hz, H₁₃), 7.24 (dd, 1H, 4J_{5,7}=1.16 Hz, J_{4,5}=7.53 Hz, H₅), 7.26 (d, 1H, J_{5,4}=8.11 Hz, H₄), 7.47 (s, 1H, 4J_{7,5}=0.97 Hz, H₇), 8.30 (t, 1H, J=5.70 Hz, NHCH₂-Ar), 9.75 (br. s, 1H, Ar-OH) (Fig.S29). ¹³C NMR(125 MHz, DMSO-d₆, δ): 21.22, 43.14, 115.85, 118.00, 119.37, 121.41, 125.34, 127.04, 128.69, 129.36, 130.55, 130.81, 150.45, 155.61, 166.29. Anal. Calcd. for C₁₅H₁₄N₂OS: C 66.64, H 5.22, N 10.36, S 11.86 %. Found: C 66.60, H 5.21, N 10.33, S 11.84 %.

N-(4-hydroxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4d). Yield: 93%. M.p. 168-170°. FT-IR: 3542, 3430, 1591, 1556. ¹H NMR(500 MHz, DMSO-d₆, δ): 2.46 (s, 3H CH₃-Benzothiazole), 4.49 (d, 2H, JCH₂-NH=5.20 Hz, Ar-CH₂NH-), 6.74 (d, 2H, J_{11,13}=8.43 Hz, H₁₂ and H₁₄), 7.02 (d, 1H, J_{4,5}=7.16 Hz, H₅), 7.2 (d, 2H, J_{12,14}=8.41 Hz, H₁₁ and H₁₅), 7.24 (d, 1H, J_{5,4}=6.84 Hz, H₄), 8.28 (t, 1H, J_{NH-CH₂}=5.44 Hz, NHCH₂-Ar), 9.30 (br. s, 1H, Ar-OH) (Fig.S30 and S31). ¹³C NMR(125 MHz, DMSO-d₆, δ): 21.22, 47.39, 115.54, 118.15, 121.32, 16.98, 129.34, 129.49, 130.42, 130.92, 150.86, 156.95, 165.91 (Fig.S32). Anal. Calcd. for C₁₅H₁₄N₂OS: C 66.64, H 5.22, N 10.36, S 11.86 %. Found: C 66.61, H 5.18, N 10.31, S 11.82 %.

2-Chloro-N-[6-methyl-1,3-benzothiazol-2-yl]-N-[2-methylbenzyl] acetamide (5a). Yield: 76%. M.p. 188-190°. FT-IR: 1698, 1600, 1509(Fig.S36). ¹H NMR(500 MHz, DMSO-d₆, δ): 2.49 (s, 6H, CH₃-Benzothiazole and Ar-CH₃), 4.55 (s, 2H, Ar-CH₂N-), 5.50 (s, 2H, N(CO)CH₂Cl), 6.76 (d, 1H, J_{14,15}=7.59 Hz, H₁₅), 7.11 (t, 1H, J_{12,14}=7.54 Hz, H₁₃), 7.18 (t, 1H, J_{15,13}=7.36 Hz, H₁₄), 7.24 (d, 1H, J_{13,12}=8.20 Hz, H₁₂), 7.28 (d, 1H, J_{4,5}=8.63 Hz, H₅), 7.62 (d, 1H, J_{5,4}=8.27 Hz, H₄), 7.84(s, 1H, H₇) (Fig.S37). ¹³C NMR(125 MHz, DMSO-d₆, δ): 19.99, 22.30, 44.62, 49.49, 122.16, 122.9, 124.72, 127.64, 128.37, 128.95, 131.69, 133.31, 134.12, 135.15, 135.54, 136.40, 152.03, 168.63 (Fig.S38). ESI-MS m/z= Calculated for (C₁₈H₁₇ClN₂SO + H⁺) 345.1, observed 345.1(Fig.S40). Anal. Calcd for C₁₈H₁₇ClN₂SO: C 62.69, H 4.97, N 8.12, S 9.30 %. Found: C 62.48, H 5.006, N 8.339, S 9.265 %.

2-Chloro-N-[6-methyl-1,3-benzothiazol-2-yl]-N-[2-methoxybenzyl]acetamide (5b). Yield: 82%. M.p. 146-149°. FT-IR: 1683, 1605, 1520 (Fig.S41). ¹H NMR(500 MHz, DMSO-d₆, δ): 2.40 (s, 3H, CH₃-Benzothiazole), 3.53 (s, 3H, Ar-OCH₃), 4.75 (s, 2H, CH₂N), 5.43 (s, 2H,

N(CO)CH₂Cl), 6.87 (t, 1H, J_{12,14}=7.35 Hz, H₁₃), 6.92 (d, 1H, J_{13,12}=6.80 Hz, H₁₂), 7.08 (d, 1H, J_{14,15}=8.21 Hz, H₁₅), 7.25 (d, 1H, J_{4,5}=8.94 Hz, H₅); 7.29 (t, 1H, J_{15,13}=7.30, H₁₄), 7.63 (d, 1H, J_{5,4}=8.26 Hz, H₄), 7.81 (s, 1H, H₇) (Fig.S42, fig.S43 and S44). ¹³C NMR(125 MHz, DMSO-d₆, δ): 21.48, 43.77, 46.79, 55.98, 61.29, 111.43, 121.02, 121.34, 121.61, 123.94, 126.50, 128.09, 129.16, 133.22, 134.24, 145.99, 157.00, 167.86 (Fig.S45). ESI-MS m/z= Calculated for (C₁₈H₁₇ClN₂SO₂ + H⁺) 361.1, observed 361.1(Fig.S48). Anal. Calcd for C₁₈H₁₇ClN₂SO₂: C 59.91, H 4.75, N 7.76, S 8.89 %. Found: C 59.72, H 4.64, N 7.63, S 8.99 %.

2-[(Chloroacetyl)(6-methyl-1,3-benzothiazol-2-yl)aminomethyl]phenyl chloroacetate (5c). Yield: 78%. M.p. 159-161°. FT-IR: 1775, 1668, 1600, 1505. ¹H NMR(500 MHz, DMSO-d₆, δ): 2.40 (s, 3H, CH₃-Benzothiazole), 4.70 (s, 2H, Ar-CH₂N-), 4.80 (s, 2H, O(CO)CH₂Cl), 5.50 (s, 2H, N(co)ch₂Cl), 7.07 (d, 1H, J_{14,15}=7.69 Hz, H₁₅), 7.10 (d, 1H, J_{4,5}=7.49 Hz, H₅), 7.20 (t, 1H, J_{15,13}=7.49 Hz, H₁₄), 7.30 (d, 1H, J_{13,12}=8.03 Hz, H₁₂), 7.40 (t, 1H, J_{12,14}=7.89 Hz, H₁₃), 7.65 (d, 1H, J_{5,4}=8.28 Hz, H₄), 7.85 (s, 1H, H₇). Anal. Calcd. for C₁₉H₁₆Cl₂N₂O₃S: C 53.90, H 3.81, N 6.62, S 7.58 %. Found: C 53.92, H 3.84, N 6.59, S 7.55 %.

4-[(Chloroacetyl)(6-methyl-1,3-benzothiazol-2-yl)aminomethyl]phenyl chloroacetate (5d). Yield: 82%. M.p. 156-158°. FT-IR: 1762, 1663, 1593, 1520. ¹H NMR(500 MHz, DMSO-d₆, δ): 2.43 (s, 3H, CH₃-Benzothiazole), 4.69 (s, 2H, Ar-CH₂N), 4.76 (s, 2H, O(CO)CH₂Cl), 5.57 (s, 2H, N(co)ch₂Cl), 6.74 (d, 2H, J_{11,15}=7.69 Hz, H₁₂ and H₁₄), 7.10 (d, 2H, J_{12,14}=8.5 Hz, H₁₁ and H₁₅), 7.28 (d, 1H, J_{4,5}=7.35 Hz, H₅), 7.69 (d, 1H, J_{5,4}=8.24 Hz, H₄), 7.83 (s, 1H, H₇), 8.59 (s, 1H, Ar-OH). Anal. Calcd. for C₁₉H₁₆Cl₂N₂O₃S : C 53.90, H 3.81, N 6.62, S 7.58 %. Found: C 53.88, H 3.83, N 6.61, S 7.55 %.

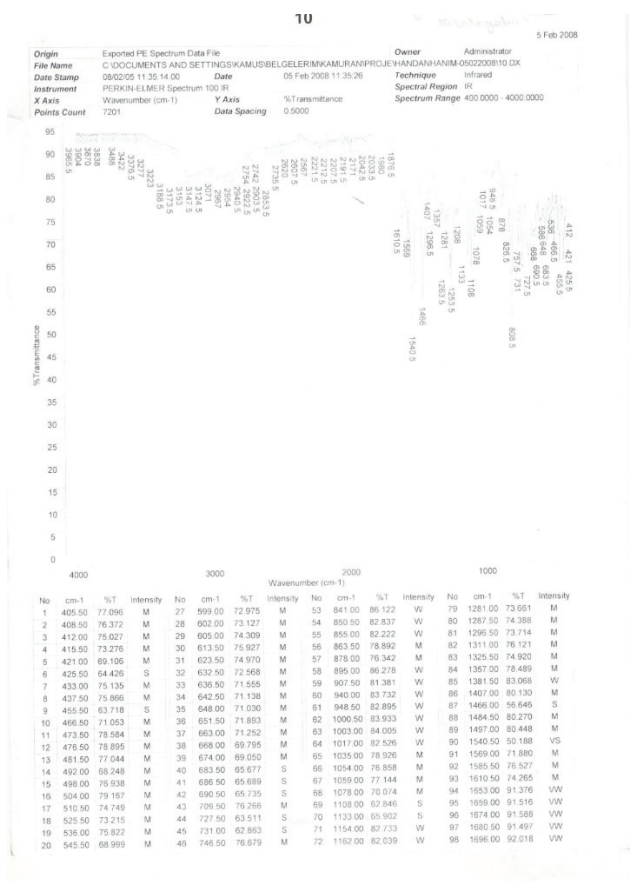


Figure S-1. FT-IR spectrum of N-[2-Methylphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3a).

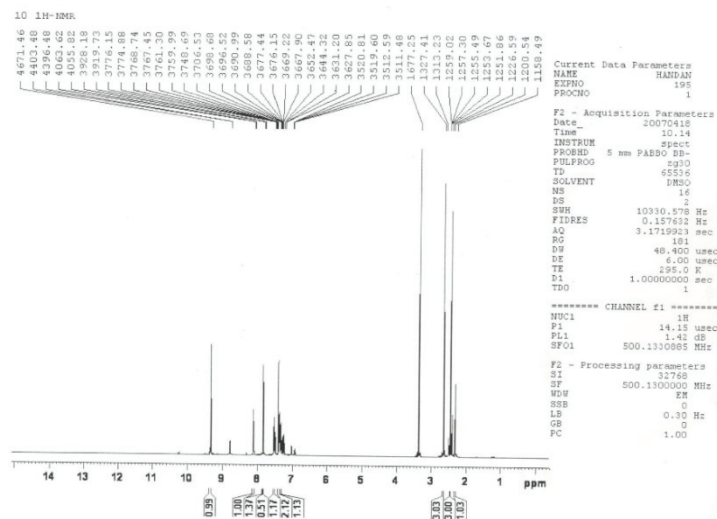


Figure S-2. ^1H NMR spectrum of N-[2-Methylphenyl]methylidene]-6-methyl-1,3-benzothiazol-2-amine (3a)

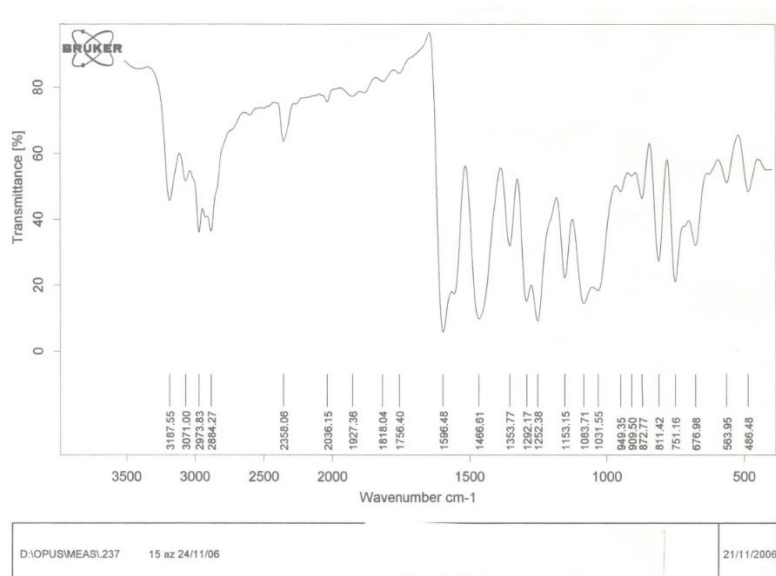


Figure S-3. FT-IR spectrum of N-[2-Methoxyphenyl]methylidene]-6-methyl-1,3-benzothiazol-2-amine (3b)

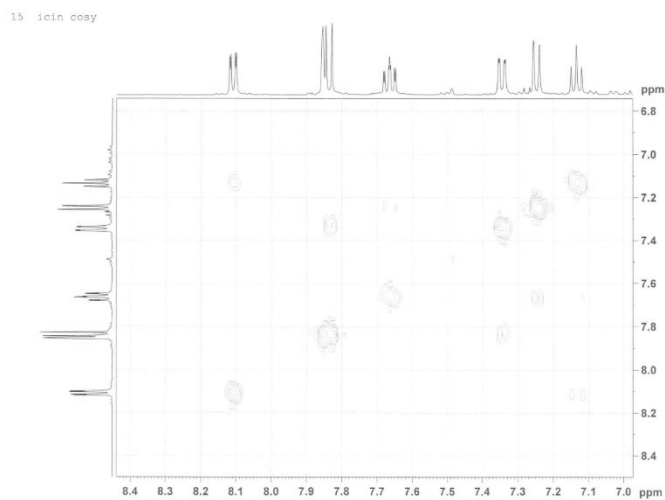


Figure S-6. ^1H - ^1H COSY spectrum of N-[2-Methoxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3b).

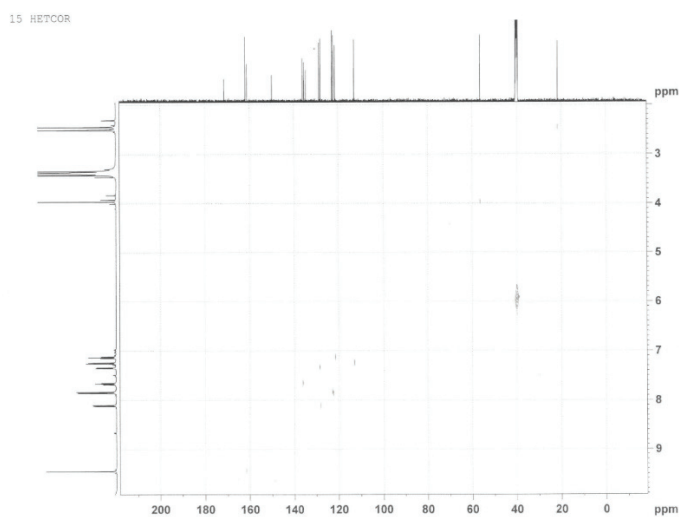


Figure S-7. HETCOR spectrum of N-[2-Methoxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3b)

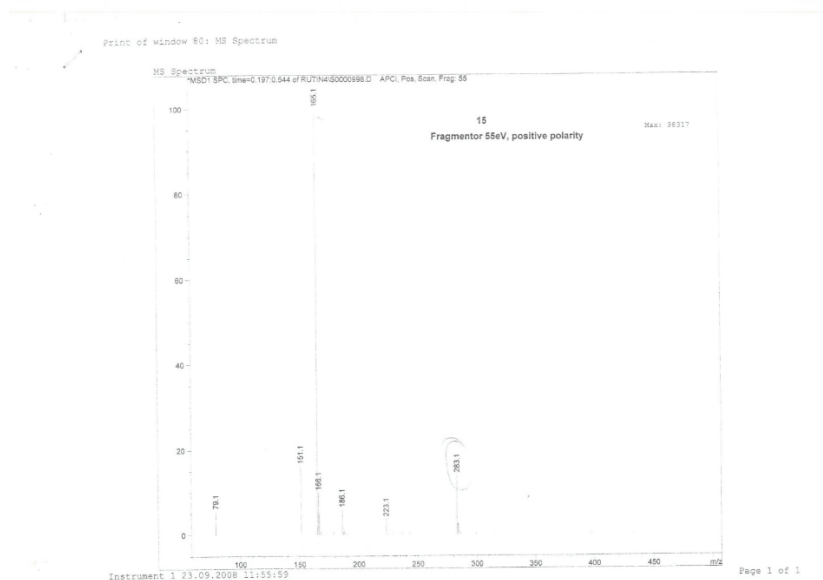


Figure S-8. ESI-MS spectrum of N-[2-Methoxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3b)

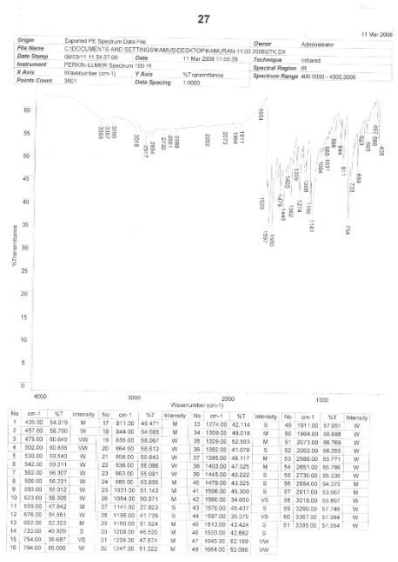


Figure S-9. FT-IR Spectrum of N-[2-hydroxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3c)

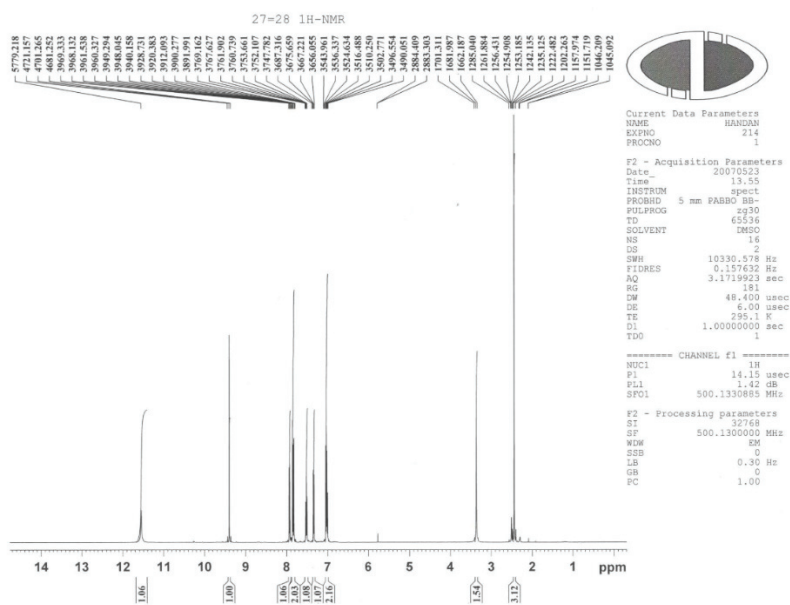


Figure S-10. ^1H NMR spectrum of N-[2-hydroxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3c)

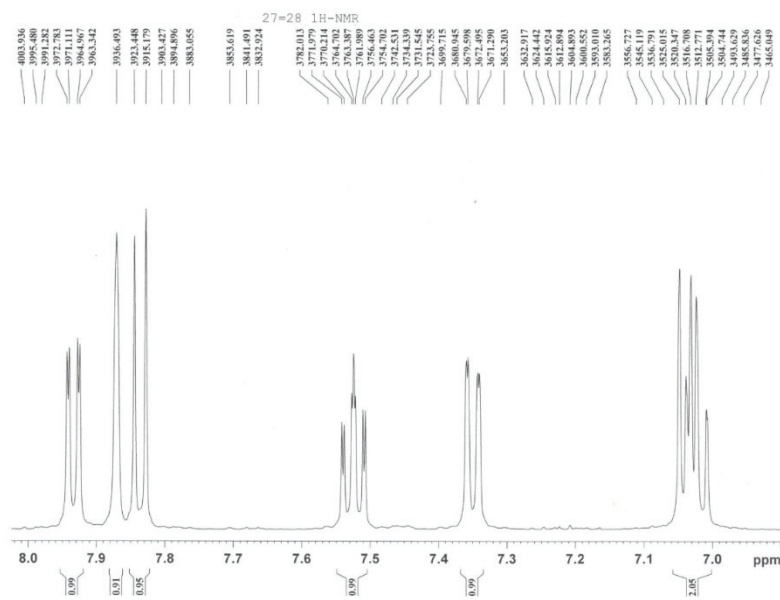


Figure S-11. ^1H NMR spectrum of N-[2-hydroxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3c)

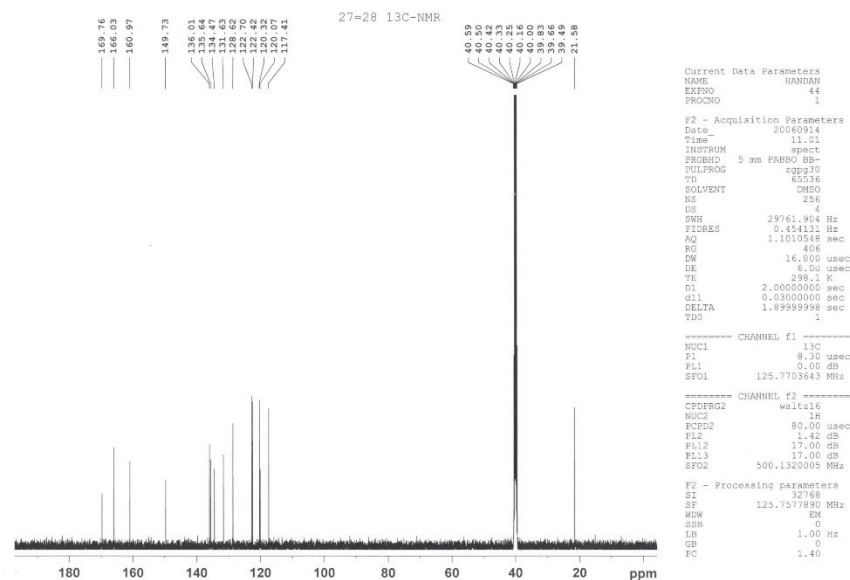


Figure S-12. ¹³C NMR spectrum of N-[2-hydroxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3c).

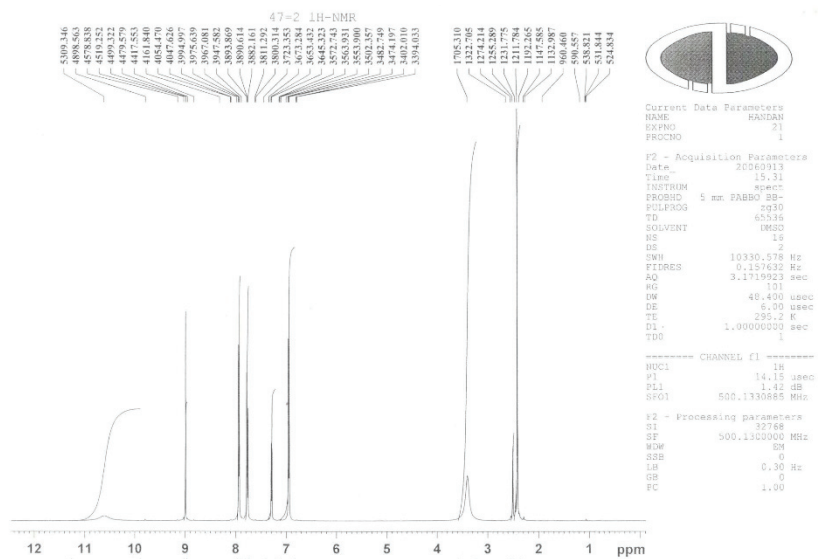


Figure S-13. ¹H NMR spectrum of N-[4-hydroxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3d)

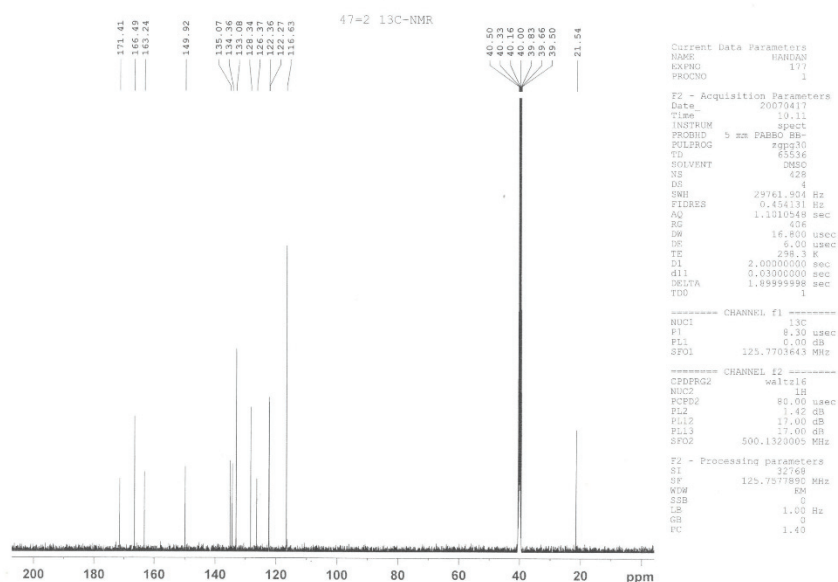


Figure S-14. ^{13}C NMR spectrum of N-[4-hydroxyphenyl)methylidene]-6-methyl-1,3-benzothiazol-2-amine (3d).

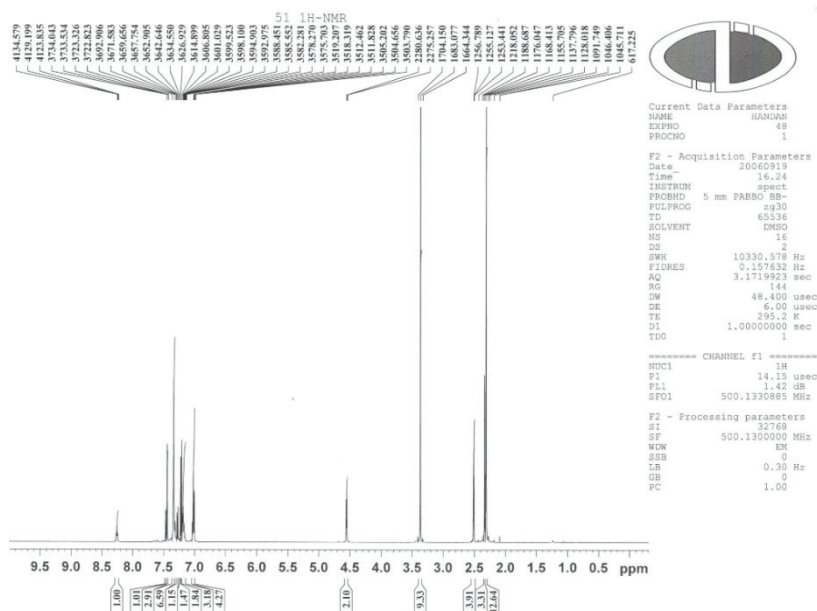


Figure S-15. ^1H NMR spectrum of N-(2-methylbenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4a)

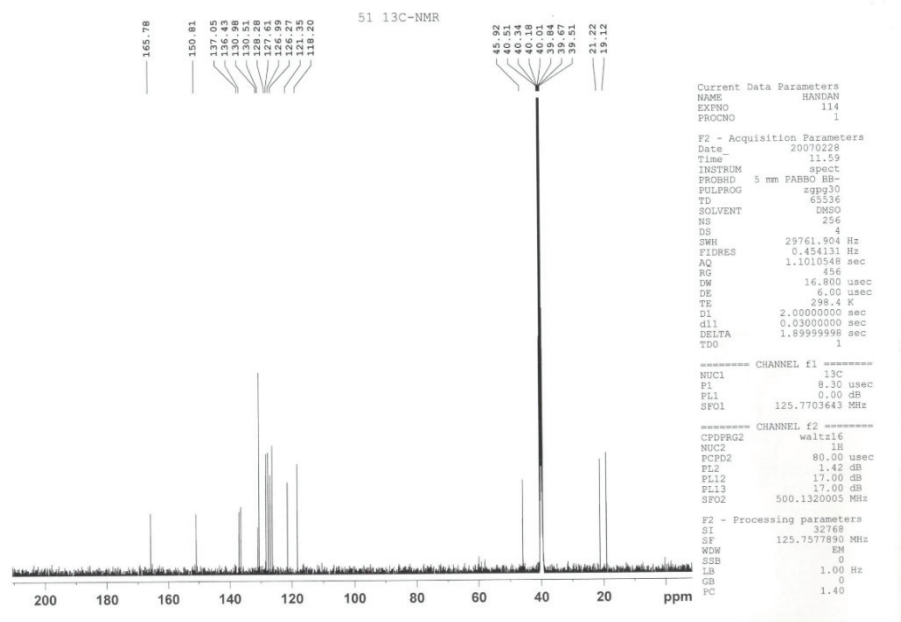


Figure S-16. ^{13}C NMR spectrum of N-(2-methylbenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4a)

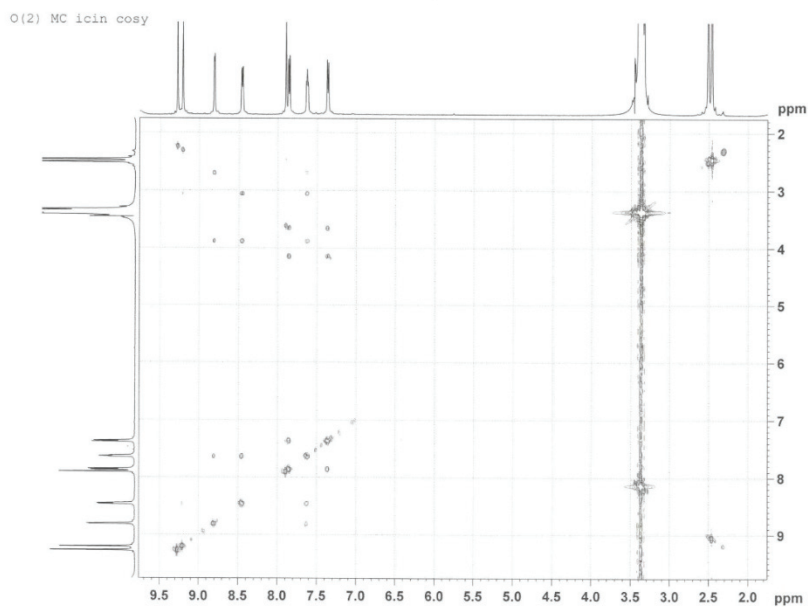


Figure S-17. COSY spectrum of N-(2-methylbenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4a)

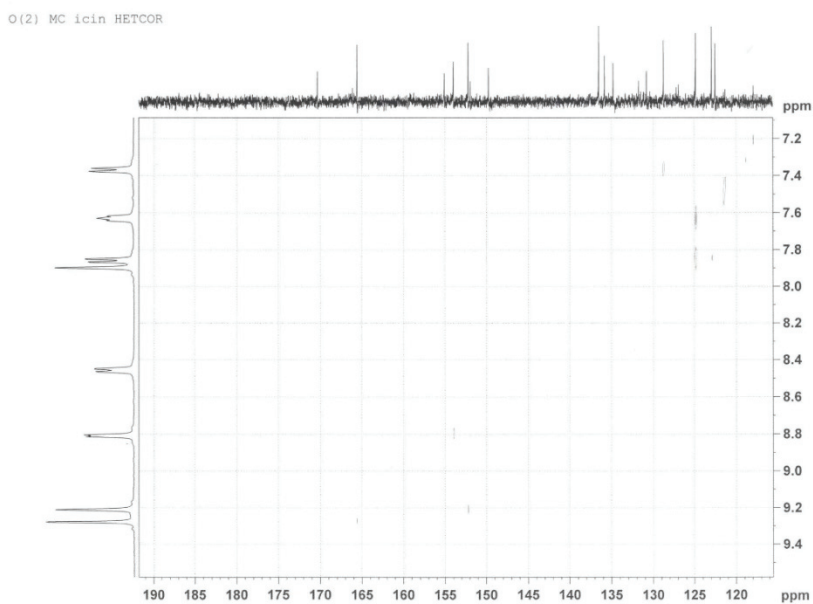


Figure S-18. HETCOR spectrum of N-(2-methylbenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4a)

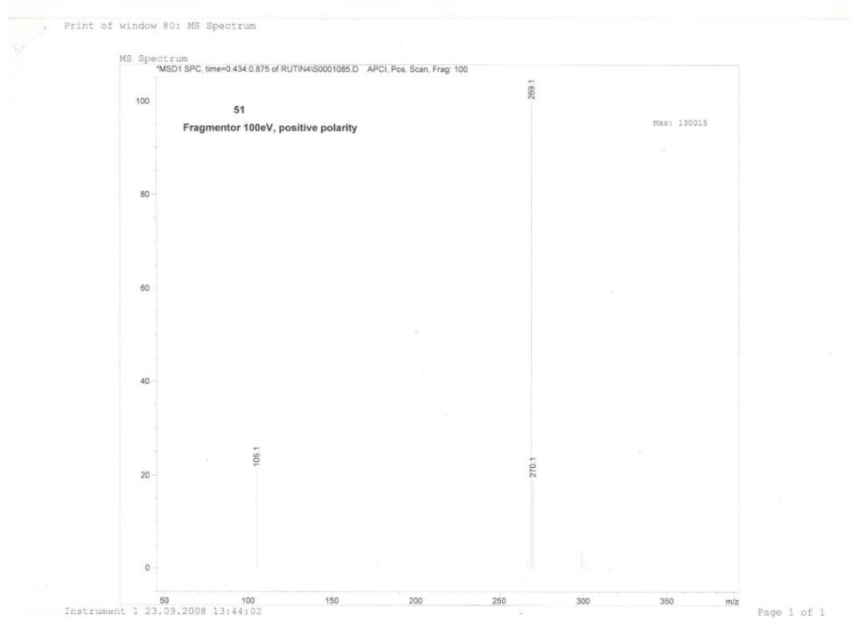
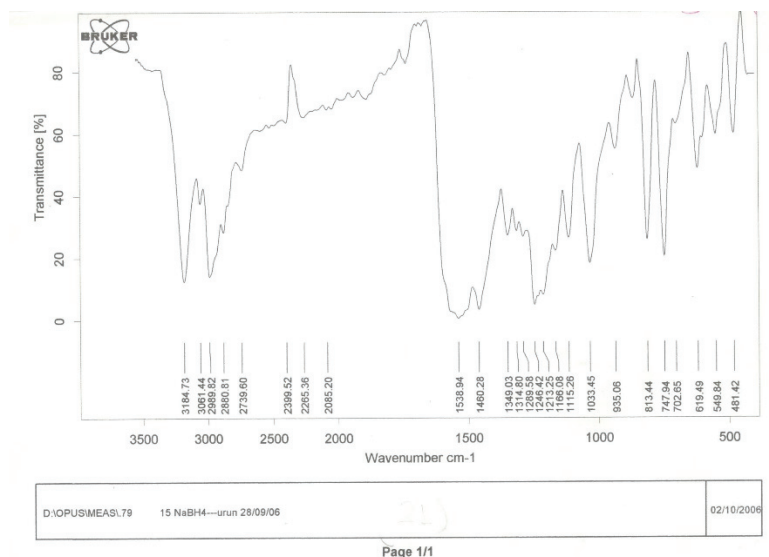


Figure S-19. ESI-MS spectrum of N-(2-methylbenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4a)



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Figure S-20. FT-IR spectrum of N-(2-methoxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4b).

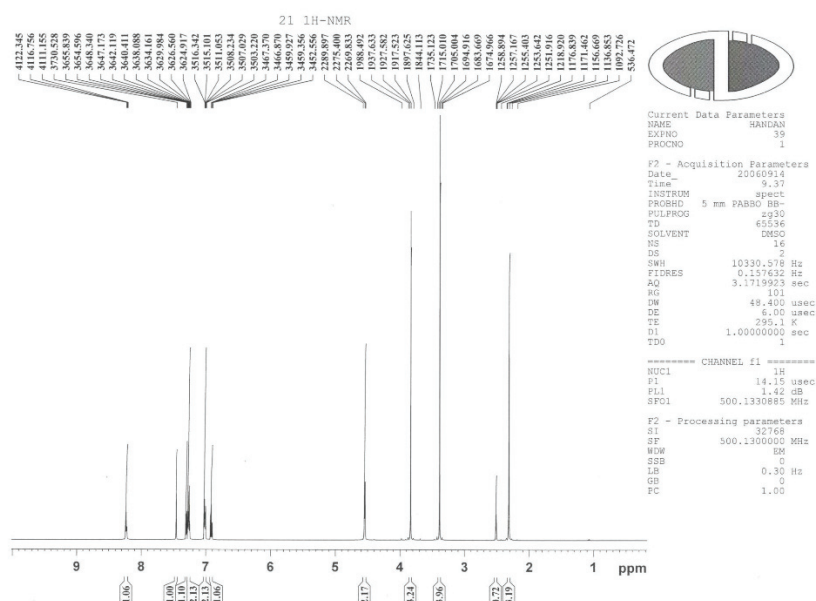
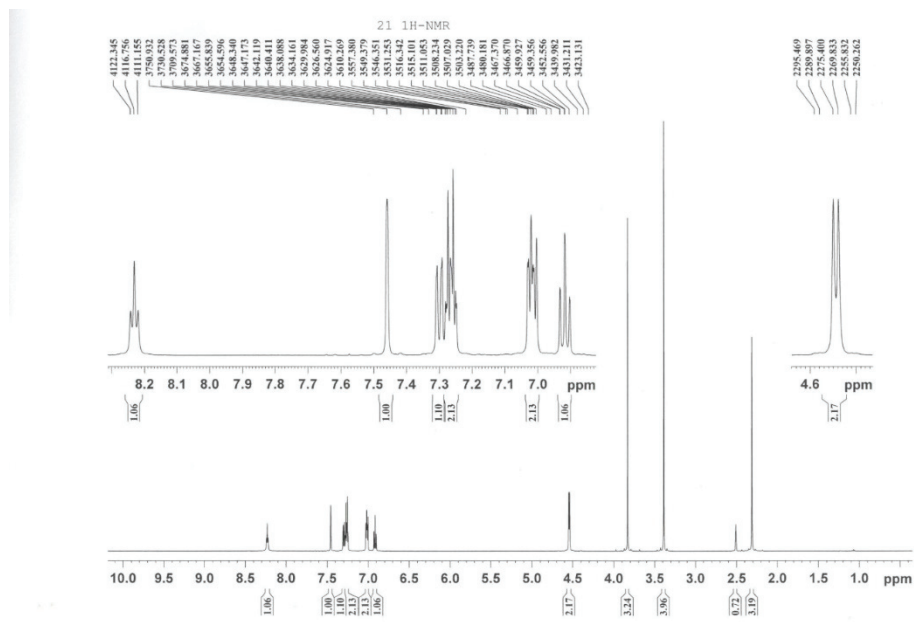


Figure S-21. ¹H NMR spectrum of N-(2-methoxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4b).



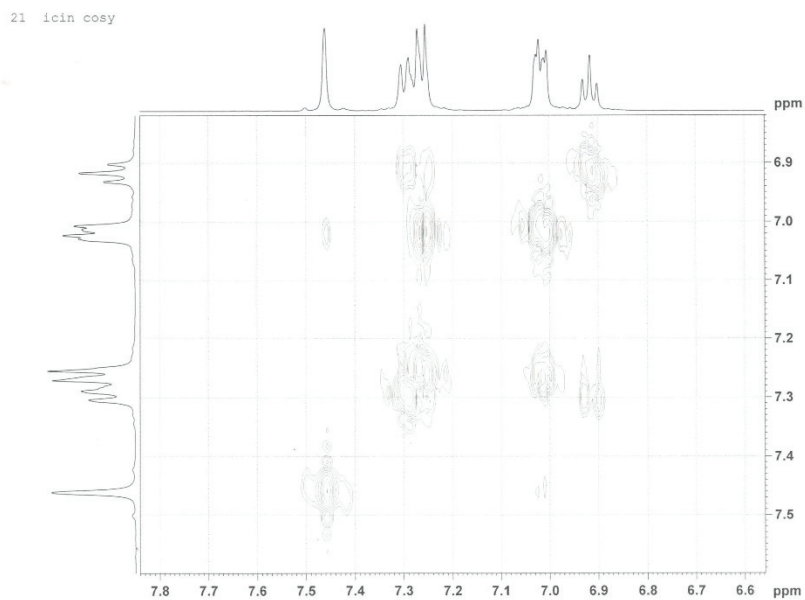


Figure S-24. COSY spectrum of N-(2-methoxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4b)

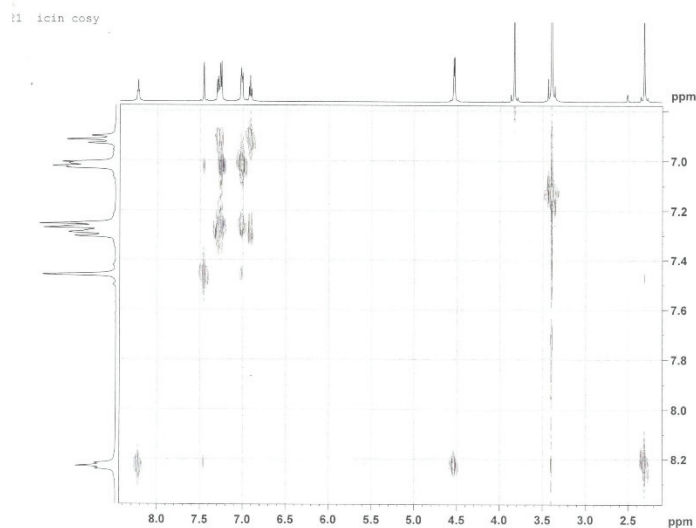


Figure S-25. COSY spectrum of N-(2-methoxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4b)

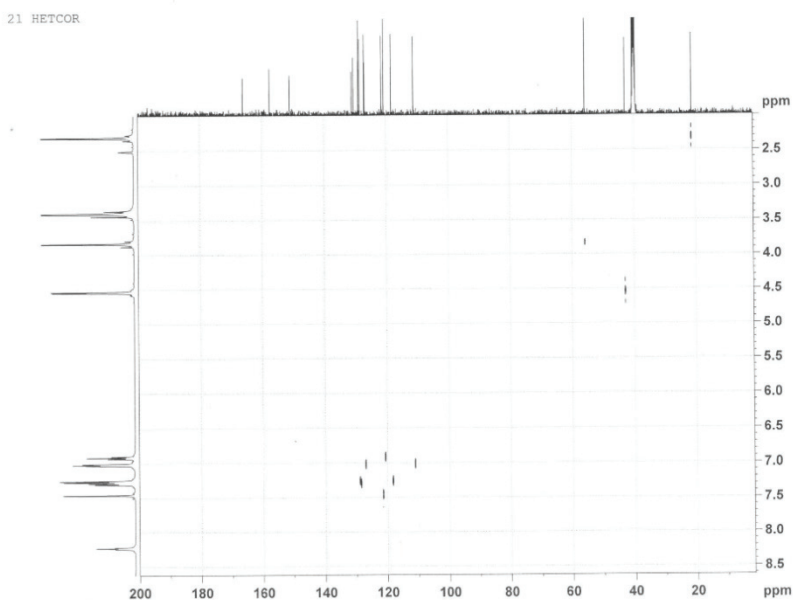


Figure S-26. HETCOR spectrum of N-(2-methoxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4b)

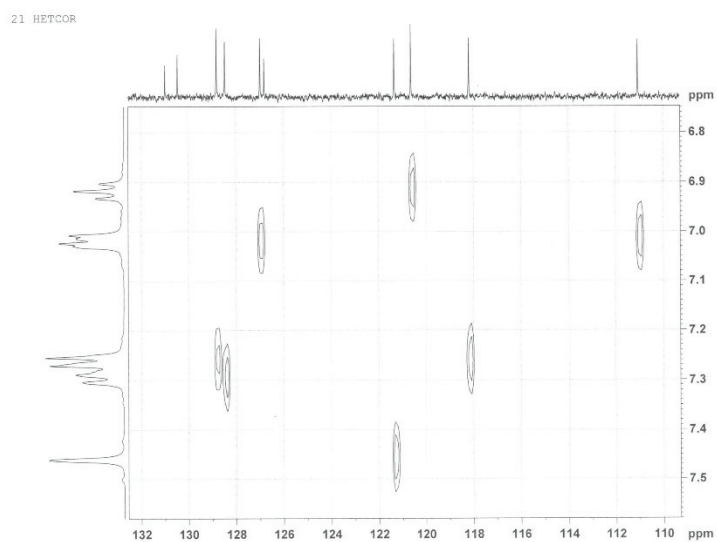


Figure S-27. HETCOR spectrum of N-(2-methoxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4b)

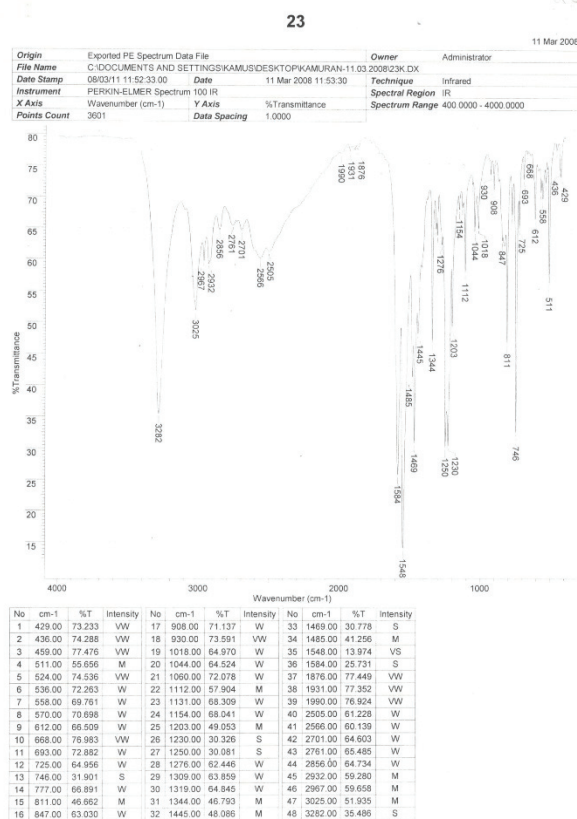


Figure S-28. FT-IR spectrum of N-(2-hydroxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4c).

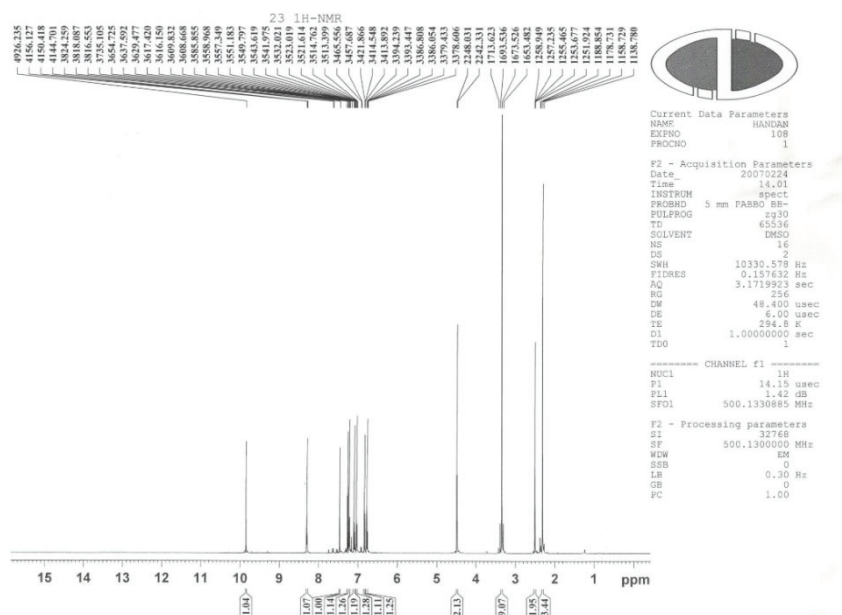


Figure S-29. ^1H NMR spectrum of N-(2-hydroxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4c).

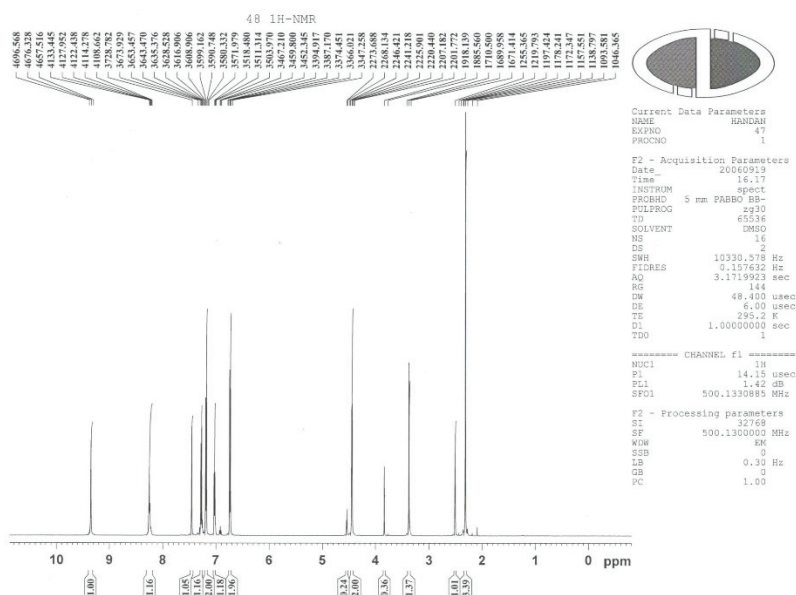


Figure S-30. ^1H NMR spectrum of N-(4-hydroxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4d).

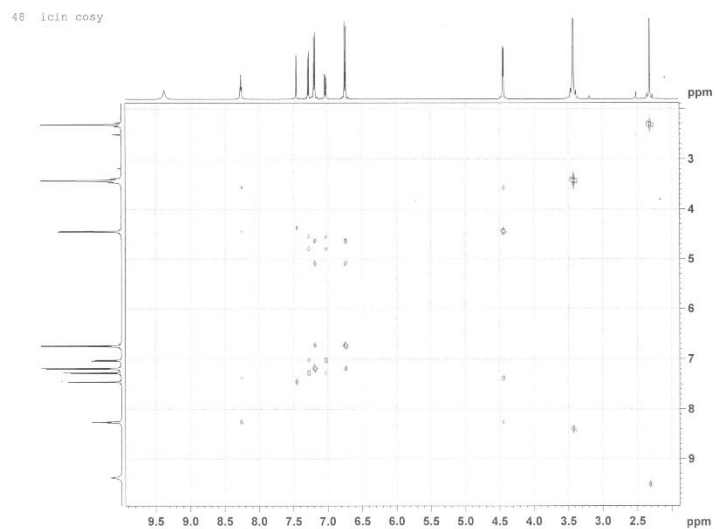


Figure S-33. COSY spectrum of N-(4-hydroxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4d).

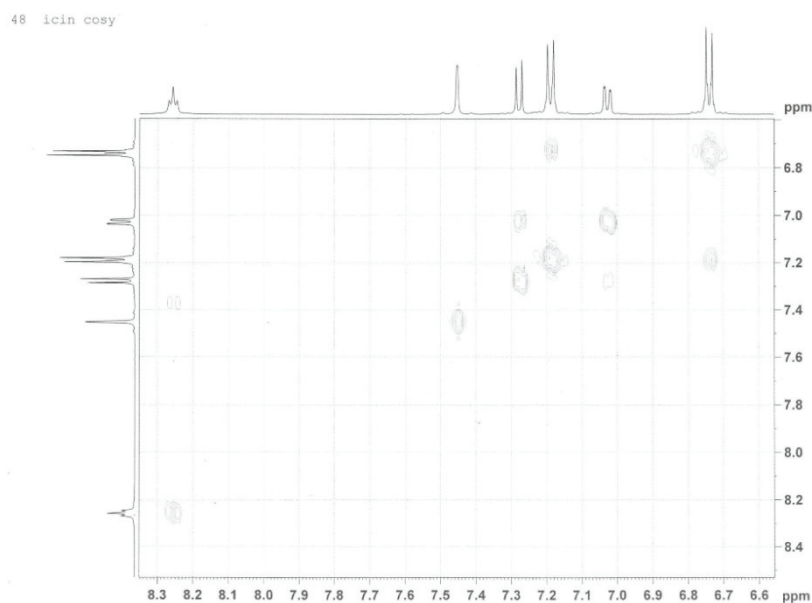


Figure S-34. COSY spectrum of N-(4-hydroxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4d).

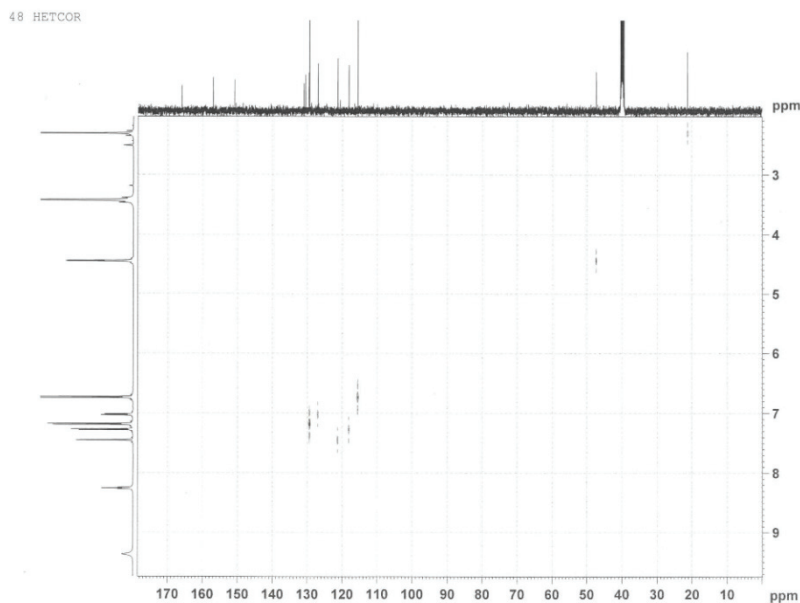


Figure S-35. HETCOR spectrum of N-(4-hydroxybenzyl)-6-Methyl-1,3-benzothiazol-2-amine (4d).

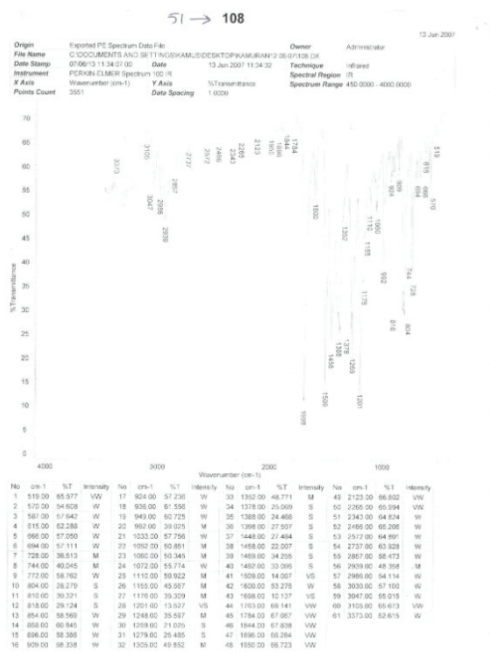


Figure S-36. FT-IR spectrum of 2-Chloro-N-[6-methyl-1,3-benzothiazol-2-yl]-N-[2-methylbenzyl] acetamide (5a).

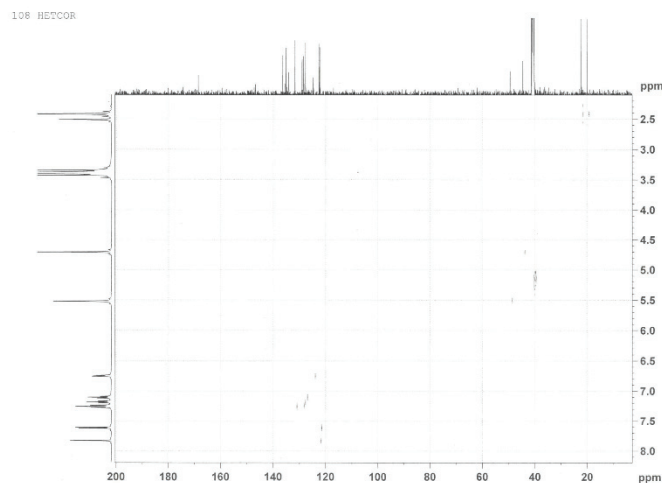


Figure S-39. HETCOR spectrum of 2-Chloro-N-[6-methyl-1,3-benzothiazol-2-yl]-N-[2-methylbenzyl] acetamide (5a).

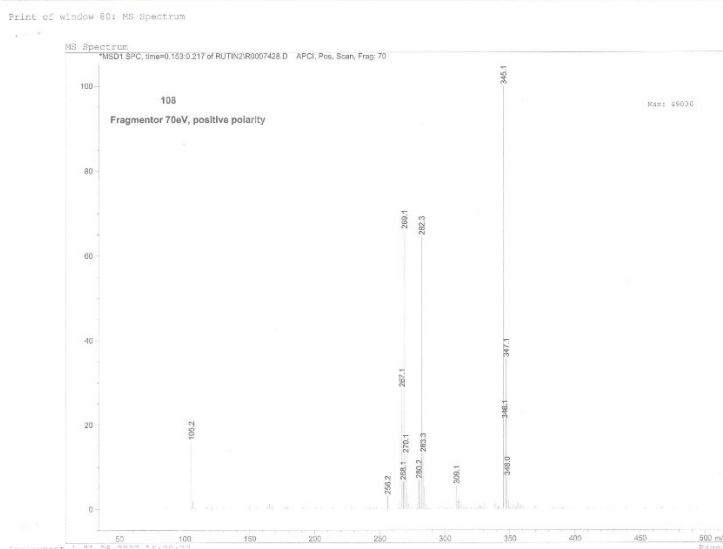


Figure S-40. ESI-MS spectrum of 2-Chloro-N-[6-methyl-1,3-benzothiazol-2-yl]-N-[2-methylbenzyl] acetamide (5a)

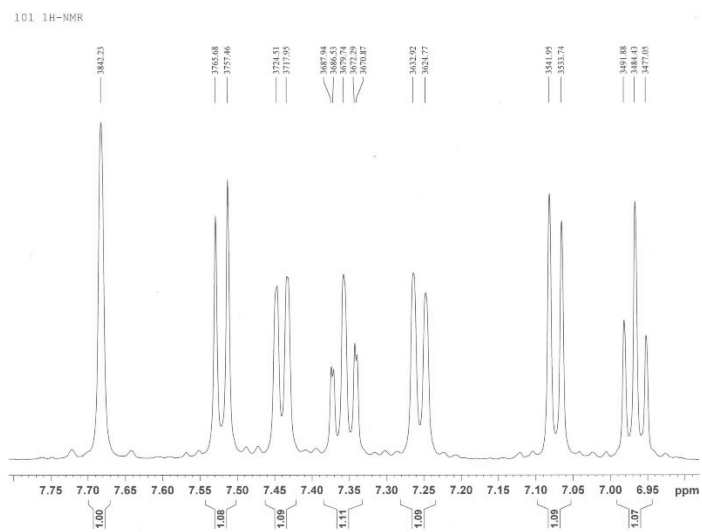


Figure S-43. ^1H NMR spectrum of 2-Chloro-N-[6-methyl-1,3-benzothiazol-2-yl]-N-[2-methoxybenzyl]acetamide(5b).

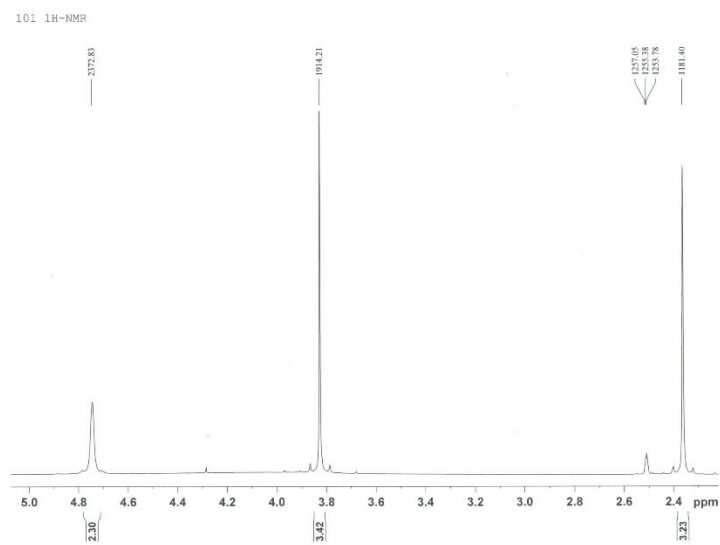


Figure S-44. ^1H NMR spectrum of 2-Chloro-N-[6-methyl-1,3-benzothiazol-2-yl]-N-[2-methoxybenzyl]acetamide(5b).

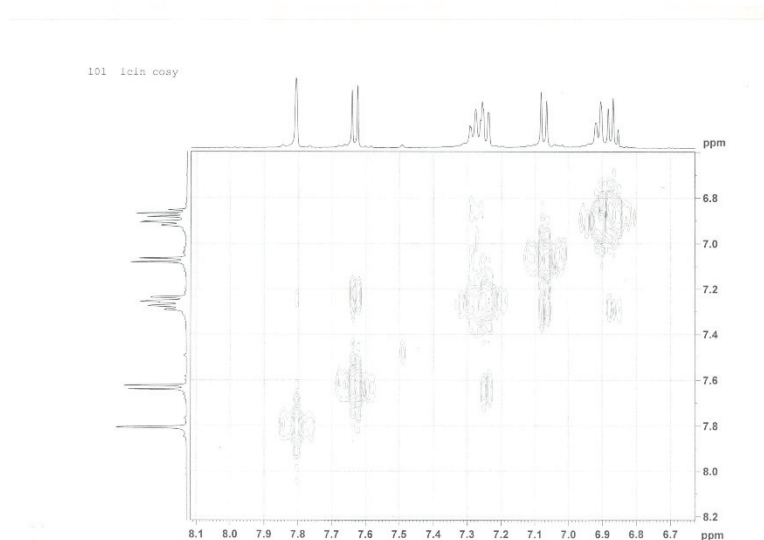


Figure S-47. COSY spectrum of 2-Chloro-N-[6-methyl-1,3-benzothiazol-2-yl]-N-[2-methoxybenzyl]acetamide (5b).

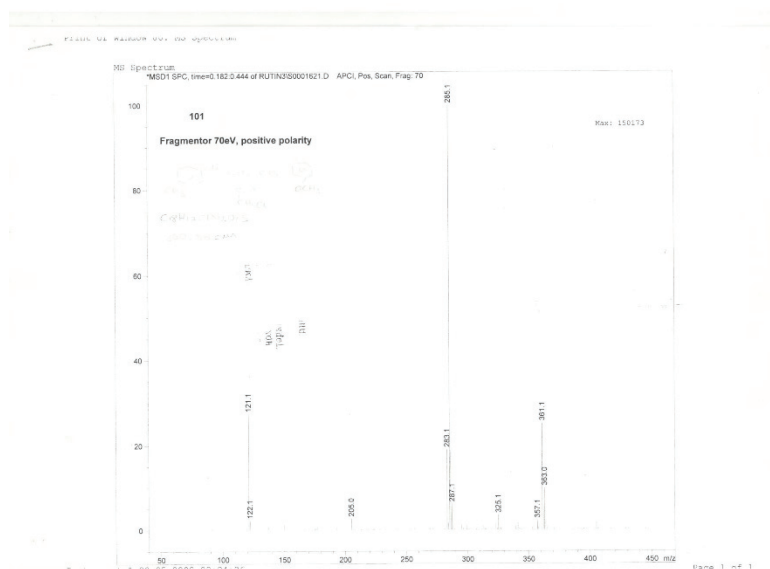


Figure S-48. ESI-MS spectrum of 2-Chloro-N-[6-methyl-1,3-benzothiazol-2-yl]-N-[2-methoxybenzyl]acetamide (5b).