Electronic Supplementary Material (ESI) for New Journal of Chemistry.


# Supporting Information

## Design and Synthesis of New *s*-Triazine Polymers and its Application as Nanoparticulate Drug Delivery Systems

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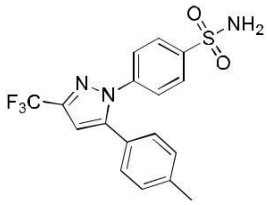
## Content

**Figure 1**: IR (KBr) of 2,2'-(6-morpholino-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **9**.
**Figure 2**: $^{1}$H-NMR (DMSO-$d_6$) of 2,2'-(6-morpholino-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **9**.
**Figure 3**: $^{1}$H-NMR (DMSO, $D_2O$) of 2,2'-(6-morpholino-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid
**9**. **Figure 4**: IR (KBr) of 2,2'-(6-morpholino-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **10**.
**Figure 5**: $^{1}$H-NMR (DMSO-$d_6$) of 2,2'-(6-morpholino-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid
**10**. **Figure 6**: IR (KBr) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **11**.
**Figure 7**: $^{1}$H-NMR (DMSO-$d_6$) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **11**.
**Figure 8**: $^{1}$H-NMR (DMSO, $D_2O$) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid
**11**. **Figure 9**: $^{13}$C-NMR (DMSO-$d_6$) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid
**11**. **Figure 10**: IR (KBr) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **12**.
**Figure 11**: $^{1}$H-NMR (DMSO-$d_6$) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **12**.
**Figure 12**: $^{13}$C-NMR (DMSO-$d_6$) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid
**12**. **Figure 13**: IR (KBr) of 2,2'-(6-(phenylamino)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **13**.
**Figure 14**: $^{1}$H-NMR (DMSO-$d_6$) of 2,2'-(6-(phenylamino)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **13**.
**Figure 15**: $^{1}$H-NMR (DMSO, $D_2O$) of 2,2'-(6-(phenylamino)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid
**13**. **Figure 16**: IR (KBr) of 2,2'-(6-(phenylamino)-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **14**.
**Figure 17**: $^{1}$H-NMR (DMSO, $D_2O$) of 2,2'-(6-(phenylamino)-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **14**.
**Figure 18**: IR (KBr) of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **25**.
**Figure 19**: TGA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **25**.
**Figure 20**: TGA/DTG of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid]
**25**. **Figure 21**: DTA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **25**.
**Figure 22**: DSC of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **25**.
**Figure 23**: IR (KBr) of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **26**.
**Figure 24**: TGA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **26**.
**Figure 25**: TGA/DTG of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid]
**26**. **Figure 26**: DTA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **26**.
**Figure 27**: DSC of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **26**.
**Figure 28**: IR (KBr) of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid]
**27**. **Figure 29**: TGA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **27**.

**Figure 71**: DTA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **35**.
**Figure 72**: DSC of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **35**.
**Figure 73**: IR (KBr) of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **36**.
**Figure 74**: TGA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **36**.
**Figure 75**: TGA/DTG of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **36**.
**Figure 76**: DTA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **36**. **Figure 77**: DSC of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **36**. **Figure 78**: IR (KBr) of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylamino)-1,3,5-triazin-2-ylamino)acetic acid] **37**.
**Figure 79**: TGA of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylamino)-1,3,5-triazin-2-ylamino)acetic acid] **37**.
**Figure 80**: TGA/DTG of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylamino)-1,3,5-triazin-2-ylamino)acetic acid] **37**. **Figure 81**: DTA of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylamino)-1,3,5-triazin-2-ylamino)acetic acid] **37**.
**Figure 82**: DSC of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylamino)-1,3,5-triazin-2-ylamino)acetic acid] **37**.
**Figure 83**: IR (KBr) of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylthio)-1,3,5-triazin-2-ylthio)acetic acid] **38**.
**Figure 84**: TGA of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylthio)-1,3,5-triazin-2-ylthio)acetic acid] **38**.
**Figure 85**: TGA/DTG of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylthio)-1,3,5-triazin-2-ylthio)acetic acid] **38**. **Figure 86**: DTA of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylthio)-1,3,5-triazin-2-ylthio)acetic acid] **38**.
**Figure 87**: DSC of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylthio)-1,3,5-triazin-2-ylthio)acetic acid] **38**.
**Figure 88**: IR (KBr) of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **39**.
**Figure 89**: TGA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **39**.
**Figure 90**: TGA/DTG of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **39**.
**Figure 91**: DTA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **39**.
**Figure 92**: DSC of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **39**.
**Figure 93**: IR (KBr) of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **40**.
**Figure 94**: TGA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **40**.
**Figure 95**: TGA/DTG of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **40**. **Figure 96**: DTA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **40**.

**Supp 1:**




Structure of 4-(5-(p-tolyl)-3-(trifluoromethyl)-1*H*-pyrazol-1-yl)benzene sulfonamide; celecoxib (CXB).

**Supp 2:**

**Table S1:** Thermal decomposition data of polymers **25-48** as recorded from their TG & DTG curves.

| Polymer No | Stage | TGA (°C) | Wt loss (%) | DTG | Residue (%) |
|---|---|---|---|---|---|
| **25** | I | 54-197 | 9.8 | 79 | |
| | II | 197-368 | 28.4 | 305 | |
| | III | 368-516 | 14.0 | 420 | |
| | IV | 516-627 | 30.0 | 568 | 17.9 |
| **26** | I | 60-183 | 2.3 | 88 | |
| | II | 183-297 | 15.8 | 264 | |
| | III | 297-448 | 27.0 | 366 | |
| | IV | 488-625 | 39.3 | 546 | 15.6 |
| **27** | I | 47-188 | 8.2 | 95 | |
| | II | 188-376 | 35.9 | 270 | |
| | III | 376-500 | 12.6 | 430 | |
| | IV | 500-608 | 33.0 | 555 | 10.3 |
| **28** | I | 40-161 | 12.7 | 67 | |
| | II | 161-377 | 30.4 | 257 | |
| | III | 377-503 | 16.6 | 415 | |
| | IV | 503-629 | 34.8 | 560 | 5.5 |
| **29** | I | 41.8-179 | 10.4 | 74 | |

| | | | | | |
|---|---|---|---|---|---|
| | II | 179-376 | 32.0 | 304 | |
| | III | 376-538 | 22.3 | 416 | |
| | IV | 538-634 | 22.7 | 557 | 12.7 |
| **30** | I | 34-125 | 16.5 | 72 | |
| | II | 125-240 | 5.9 | 156 | |
| | III | 240-375 | 23.8 | 330 | |
| | IV | 375-476 | 10.3 | 410 | |
| | V | 476-657 | 17.9 | 544 | 25.6 |
| **31** | I | 38-185 | 18.2 | 80 | |
| | II | 185-327 | 20.2 | 300 | |
| | III | 327-418 | 23.0 | 388 | |
| | IV | 418-565 | 38.3 | 542 | 0.3 |
| **32** | I | 101-291 | 16.7 | 265 | |
| | II | 291-463 | 34.2 | 395 | |
| | III | 463-629 | 41.9 | 563 | 7.1 |
| **33** | I | 39-225 | 28.6 | 44 | |
| | II | 225-416 | 25.6 | 355 | |
| | III | 416-614 | 42.4 | 508 | 3.5 |
| **34** | I | 49-245 | 19.6 | 80 | |
| | II | 245-384 | 16.8 | 264 | |
| | III | 384-530 | 23.5 | 460 | |
| | IV | 530-633 | 39.1 | 582 | 1.0 |
| **35** | I | 41-199 | 29.3 | 75 | |
| | II | 199-386 | 16.1 | 302 | |
| | III | 386-606 | 44.8 | 516 | 9.9 |
| **36** | I | 36-190 | 16.3 | 72 | |
| | II | 190-374 | 30.8 | 312 | |
| | III | 374-482 | 19.5 | 420 | |
| | IV | 482-592 | 22.9 | 498 | 10.5 |
| **37** | I | 55-145 | 11.0 | 82 | |
| | II | 145-381 | 27.9 | 280 | |
| | III | 381-509 | 13.5 | 428 | |
| | IV | 509-620 | 30.4 | 563 | 17.2 |
| **38** | I | 43-167 | 7.1 | 65 | |
| | II | 167-333 | 17.6 | 296 | |
| | III | 333-511 | 18.7 | 420 | |
| | IV | 511-662 | 33.2 | 580 | 23.4 |
| **39** | I | 37-202 | 16.5 | 80 | |
| | II | 202-378 | 37.0 | 271 | |

| | | | | | |
|---|---|---|---|---|---|
| | III | 378-529 | 18.8 | 456 | |
| | IV | 529-610 | 27.7 | 566 | 0 |
| **40** | I | 41-217 | 3.9 | 88 | |
| | II | 217-354 | 26.8 | 272 | |
| | III | 354-497 | 32.6 | 443 | |
| | IV | 497-641 | 28.7 | 565 | 8.0 |
| **41** | I | 62-176 | 5.1 | 76 | |
| | II | 176-289 | 15.0 | 266 | |
| | III | 289-393 | 21.1 | 326 | |
| | IV | 393-624 | 41.3 | 566 | 17.5 |
| **42** | I | 38-188 | 22.5 | 81 | |
| | II | 188-375 | 32.2 | 268 | |
| | III | 375-469 | 10.4 | 410 | |
| | IV | 469-628 | 31.1 | 544 | 3.9 |
| **43** | I | 39-117 | 8.8 | 76 | |
| | II | 117-205 | 6.6 | 156 | |
| | III | 205-378 | 25.5 | 282 | |
| | IV | 378-440 | 7.8 | 413 | |
| | V | 440-600 | 50.1 | 565 | 1.3 |
| **44** | I | 54-182 | 5.0 | 70 | |
| | II | 182-377 | 29.4 | 336 | |
| | III | 377-607 | 51.8 | 535 | 13.9 |
| **45** | I | 45-232 | 15.5 | 96 | |
| | II | 232-381 | 24.4 | 293 | |
| | III | 381-602 | 60.1 | 551 | 0 |
| **46** | I | 36-163 | 3.7 | 40 | |
| | II | 163-367 | 29.2 | 254 | |
| | III | 367-512 | 20.1 | 446 | |
| | IV | 512-660 | 34.9 | 586 | 12.2 |
| **47** | I | 34-206 | 13.9 | 73 | |
| | II | 206-408 | 20.7 | 312 | |
| | III | 408-640 | 48.2 | 564 | 17.2 |
| **48** | I | 54-232 | 15.1 | 82 | |
| | II | 232-376 | 23.4 | 326 | |
| | III | 376-640 | 51.1 | 496 | 10.4 |

**Supp 3:**

**Table S2:** Thermodynamic parameters of kinetic data obtained from the nonisothermal decomposition of the prepared polymers **25-48**

| Compd | Peak | Slope | ΔE* (KJ mol$^{-1}$) | *A* | *B* | *N* | $T_m$(K) | ΔS* (KJ mol$^{-1}$) | ΔH* (KJ mol$^{-1}$) |
|---|---|---|---|---|---|---|---|---|---|
| **25** | A | -8.435 | 70.124 | 1.4 | 2.8 | 0.89 | 841 | -0.249 | -209.548 |
| | B | -4.412 | 36.685 | 2.8 | 1.8 | 1.57 | 345 | -0.240 | -82.637 |
| **26** | A | -9.379 | 77.980 | 4.0 | 3.4 | 1.37 | 813 | -0.248 | -201.381 |
| | B | -18.922 | 157.318 | 1.8 | 2.1 | 1.17 | 625 | -0.237 | -148.255 |
| | C | -7.948 | 66.081 | 3.5 | 1.4 | 2.00 | 337 | -0.234 | -78.848 |
| **27** | A | -6.444 | 53.575 | 1.9 | 4.1 | 0.86 | 833 | -0.251 | -209.305 |
| | B | -14.377 | 119.530 | 1.7 | 1.2 | 1.50 | 513 | -0.236 | -121.148 |
| | C | -5.326 | 44.282 | 2.2 | 1.8 | 1.39 | 337 | -0.238 | -80.034 |
| **28** | A | -6.285 | 52.250 | 1.6 | 4.3 | 0.77 | 825 | -0.251 | -207.334 |
| | B | -7.417 | 61.661 | 2.4 | 0.9 | 2.06 | 335 | -0.235 | -78.550 |
| **29** | A | -7.267 | 60.415 | 1.7 | 3.9 | 0.83 | 831 | -0.250 | -207.930 |
| | B | -22.482 | 186.915 | 1.1 | 0.7 | 1.58 | 528 | -0.233 | -122.867 |
| | C | -8.146 | 67.723 | 2.1 | 1.6 | 1.44 | 341 | -0.234 | -79.781 |
| **30** | A | -2.346 | 19.501 | 3.2 | 10.6 | 0.69 | 801 | -0.259 | -207.510 |
| | B | -7.022 | 58.378 | 1.9 | 1.5 | 1.42 | 337 | -0.235 | -79.218 |
| **31** | A | -8.069 | 67.086 | 4.8 | 14.7 | 0.72 | 797 | -0.249 | -198.161 |
| | B | -4.172 | 34.689 | 3.3 | 1.2 | 2.09 | 653 | -0.251 | -163.790 |
| | C | -8.925 | 74.202 | 2.4 | 1.2 | 1.78 | 329 | -0.233 | -76.494 |
| **32** | A | -5.313 | 44.1740 | 1.4 | 5.5 | 0.64 | 841 | -0.253 | -212.810 |
| | B | -6.825 | 56.741 | 2.6 | 0.9 | 2.14 | 335 | -0.235 | -78.797 |
| **33** | A | -15.412 | 128.135 | 1.3 | 3.1 | 0.82 | 785 | -0.243 | -190.676 |
| | B | -18.601 | 154.649 | 1.5 | 1.9 | 1.12 | 605 | -0.237 | -143.258 |
| | C | -5.126 | 42.619 | 1.1 | 1.1 | 1.26 | 333 | -0.238 | -79.126 |
| **34** | A | -12.819 | 106.577 | 1.8 | 2.9 | 0.99 | 854 | -0.246 | -209.993 |
| | B | -4.846 | 40.286 | 6.2 | 1.8 | 2.34 | 345 | -0.239 | -82.358 |
| **35** | A | -5.892 | 48.989 | 1.3 | 4.3 | 0.69 | 811 | -0.252 | -204.022 |
| | B | -9.351 | 77.743 | 2.6 | 3.0 | 1.17 | 773 | -0.247 | -190.834 |
| | C | -7.122 | 59.210 | 2.0 | 1.5 | 1.46 | 341 | -0.235 | -80.187 |
| **36** | A | -8.969 | 74.564 | 1.7 | 3.4 | 0.89 | 773 | -0.247 | -191.107 |
| | B | -5.911 | 49.145 | 3.5 | 0.9 | 2.48 | 333 | -0.236 | -78.712 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **37** | A | -10.208 | 84.869 | 1.6 | 3.2 | 0.89 | 837 | -0.248 | -207.139 |
| | B | -10.782 | 89.642 | 0.9 | 1.3 | 1.05 | 537 | -0.240 | -128.586 |
| | C | -2.983 | 24.804 | 2.0 | 1.7 | 1.37 | 354 | -0.243 | -86.135 |
| **38** | A | -11.482 | 95.461 | 3.4 | 3.4 | 1.26 | 837 | -0.247 | -206.307 |
| | B | -21.031 | 174.852 | 1.4 | 2.2 | 1.01 | 633 | -0.237 | -149.709 |
| | C | -7.482 | 62.209 | 1.8 | 1.5 | 1.38 | 337 | -0.235 | -79.029 |
| **39** | A | -4.218 | 35.072 | 1.7 | 2.7 | 1.00 | 833 | -0.255 | -212.261 |
| | B | -5.344 | 44.428 | 5.2 | 1.5 | 2.35 | 341 | -0.238 | -81.044 |
| **40** | A | -7.723 | 64.207 | 2.0 | 3.6 | 0.94 | 837 | -0.250 | -209.105 |
| | B | -6.674 | 55.489 | 3.9 | 0.8 | 2.78 | 334 | -0.235 | -78.610 |
| **41** | A | -4.564 | 37.946 | 1.5 | 6.6 | 0.60 | 843 | -0.254 | -214.422 |
| | B | -5.759 | 47.884 | 3.1 | 1.5 | 1.81 | 333 | -0.237 | -78.788 |
| **42** | A | -4.366 | 36.295 | 3.0 | 4.8 | 1.00 | 802 | -0.254 | -203.623 |
| | B | -3.640 | 30.262 | 5.4 | 5.8 | 1.22 | 669 | -0.252 | -168.842 |
| | C | -8.516 | 70.799 | 2.5 | 1.5 | 1.63 | 333 | -0.233 | -77.636 |
| **43** | A | -14.835 | 123.339 | 1.6 | 1.9 | 1.16 | 837 | -0.244 | -204.491 |
| | B | -9.556 | 79.445 | 3.6 | 2.8 | 1.43 | 793 | -0.247 | -195.969 |
| | C | -28.059 | 233.283 | 1.8 | 2.0 | 1.20 | 625 | -0.234 | -146.086 |
| | D | -6.298 | 52.362 | 3.8 | 2.1 | 1.70 | 333 | -0.236 | -78.527 |
| **44** | A | -5.018 | 41.716 | 3.0 | 4.8 | 1.00 | 794 | -0.253 | -200.533 |
| | B | -10.257 | 85.277 | 3.5 | 2.5 | 1.49 | 625 | -0.243 | -151.552 |
| | C | -5.196 | 43.202 | 2.0 | 1.2 | 1.63 | 337 | -0.238 | -80.107 |
| **45** | A | -13.002 | 108.099 | 1.2 | 2.0 | 0.98 | 831 | -0.245 | -203.853 |
| | B | -3.233 | 26.883 | 7.4 | 2.0 | 2.42 | 349 | -0.242 | -84.594 |
| **46** | A | -8.479 | 70.494 | 1.9 | 3.6 | 0.92 | 857 | -0.249 | -213.768 |
| | B | -5.075 | 42.194 | 6.4 | 1.5 | 2.60 | 337 | -0.238 | -80.176 |
| **47** | A | -7.135 | 59.317 | 1.2 | 3.8 | 0.71 | 853 | -0.251 | -213.941 |
| | B | -7.246 | 60.242 | 4.8 | 1.7 | 2.12 | 333 | -0.235 | -78.115 |
| **48** | A | -5.263 | 43.760 | 1.5 | 5.0 | 0.69 | 753 | -0.251 | -189.206 |
| | B | -5.123 | 42.595 | 5.8 | 1.7 | 2.33 | 345 | -0.238 | -82.191 |

**Supp 4:**

**Table S3:** Thermal transitions of polymers **25-48**

| Compound | Thermal transition (°C) | | |
|---|---|---|---|
| | Tg | Tc | Tm |
| **25** | 346 | ----- | 569.9 |
| **26** | 328 | ----- | 567.6 |
| **27** | 318 | ----- | 565.2 |
| **28** | 324 | ----- | 578.5 |
| **29** | 336 | ----- | 562.4 |
| **30** | 366 | ----- | 567.3 |
| **31** | 364 | ----- | 555.1 |
| **32** | 348 | ----- | 577.2 |
| **33** | 340 | ----- | 532.2 |
| **34** | 340 | ----- | 583.7 |
| **35** | 396 | ----- | 538.6 |
| **36** | 300 | ----- | 505.1 |
| **37** | 284 | ----- | 566.8 |
| **38** | 308 | ----- | 578.2 |
| **39** | 320 | ----- | 525.5 |
| **40** | 336 | ----- | 569.1 |
| **41** | 336 | ----- | 573.8 |
| **42** | 280 | ----- | 573.6 |
| **43** | ----- | 448 | 569.0 |
| **44** | 332 | ----- | 529.6 |
| **45** | 352 | ----- | 559.1 |
| **46** | 264 | ----- | 587.8 |
| **47** | 322 | ----- | 580.9 |
| **48** | 376 | ----- | 507.7 |

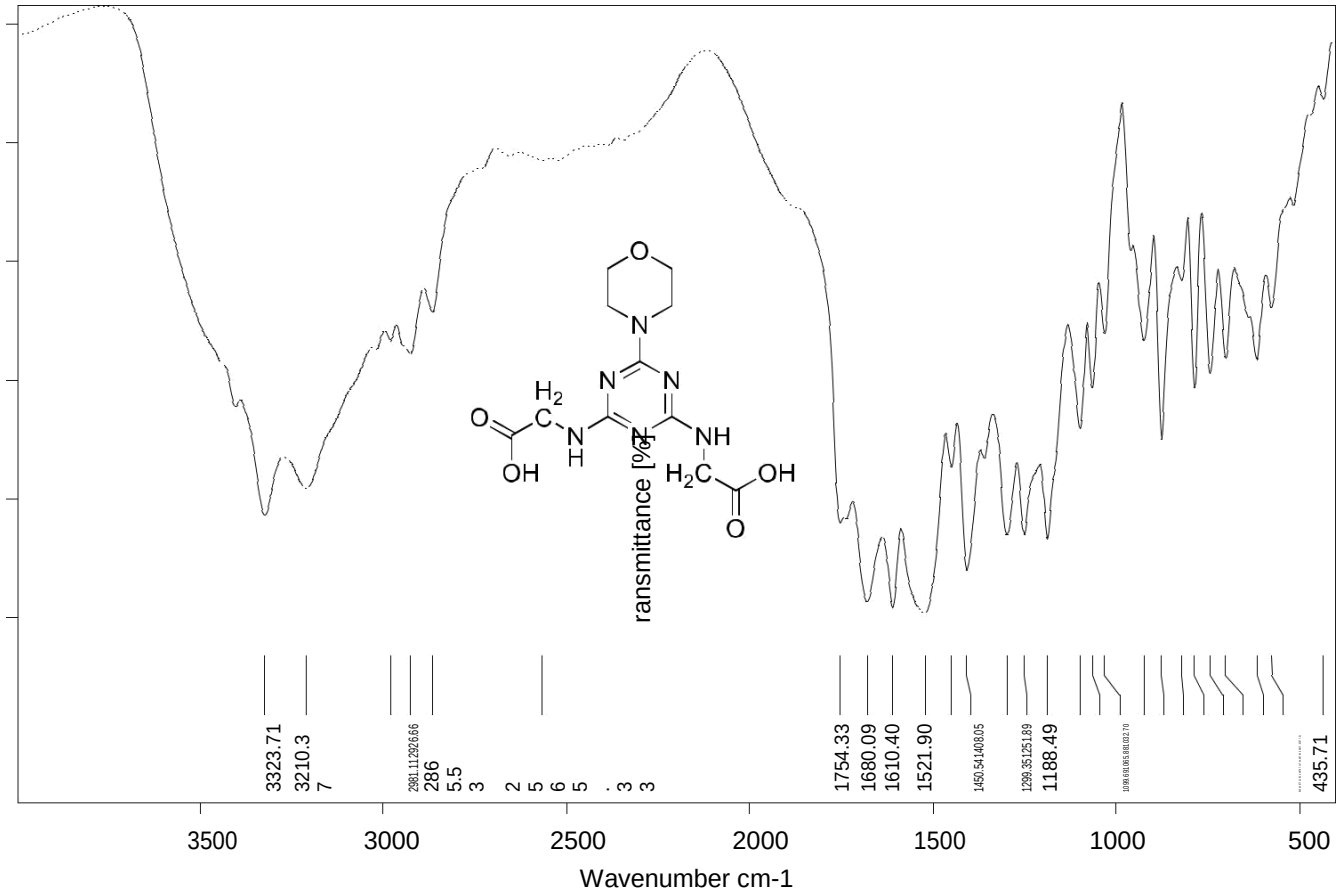



**Figure 1**: IR (KBr) of 2,2'-(6-morpholino-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **9**.

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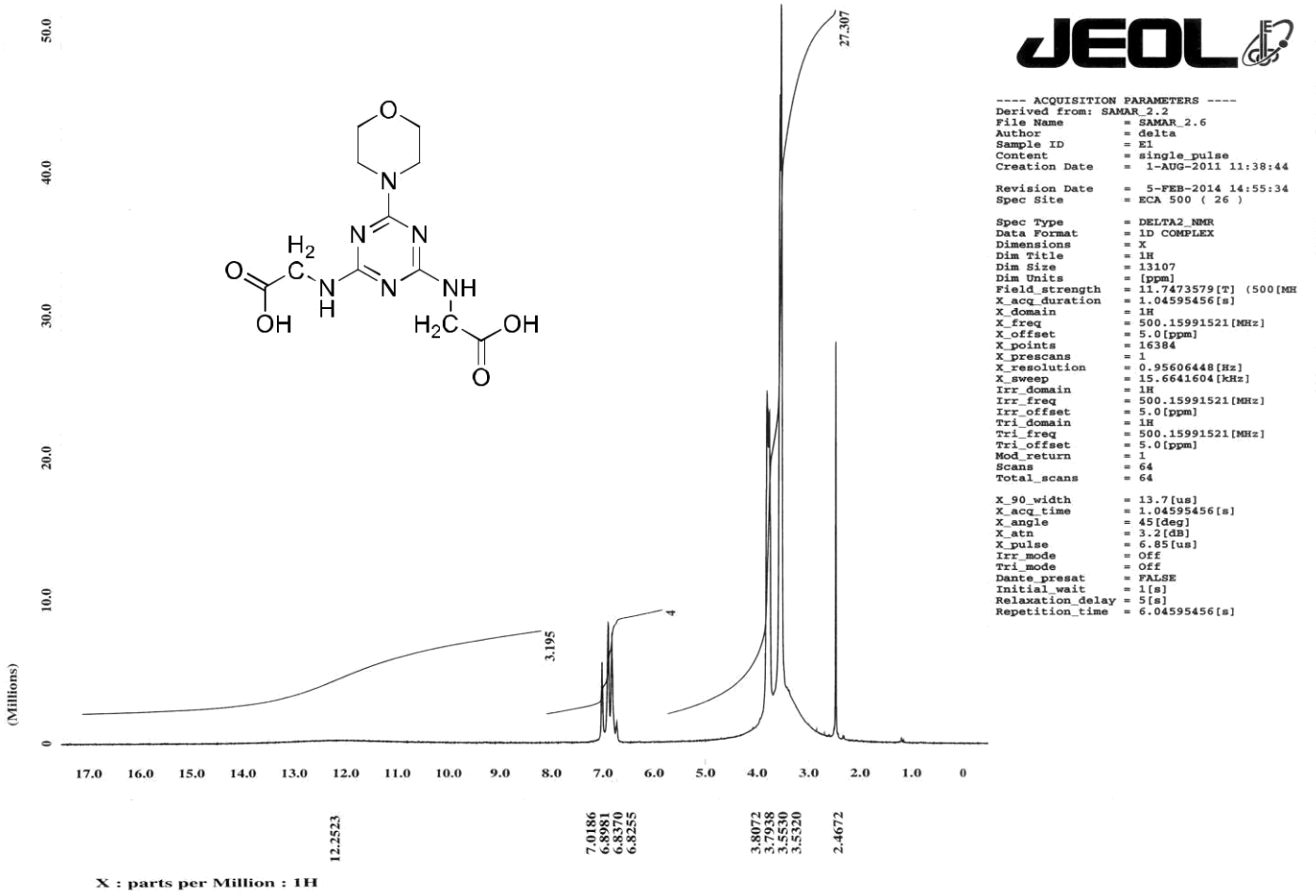


**Figure 2**: $^{1}$H-NMR (DMSO-d$_6$) of 2,2'-(6-morpholino-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **9**.

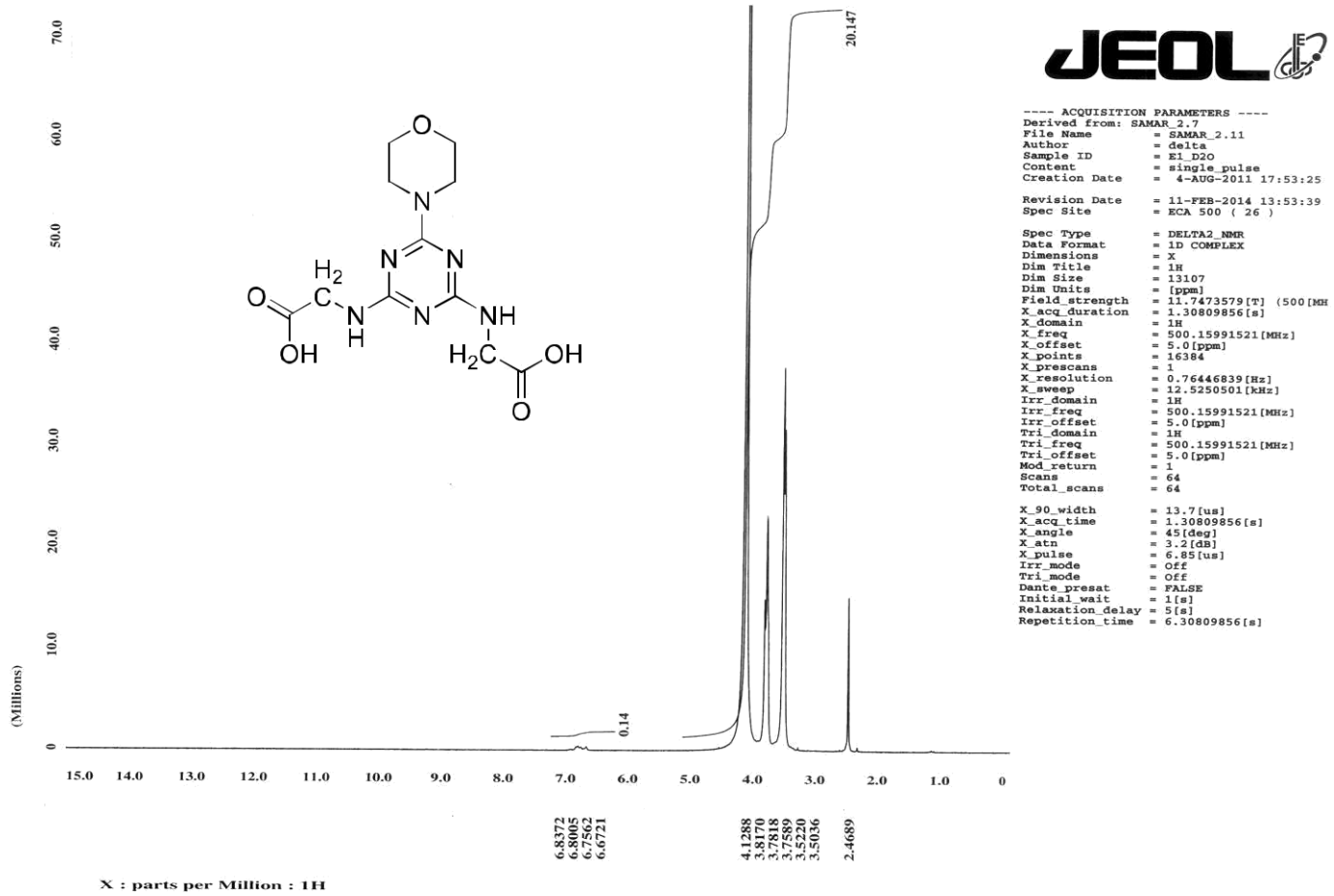


**Figure 3**: $^{1}$H-NMR (DMSO, $D_2O$) of 2,2'-(6-morpholino-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **9**.

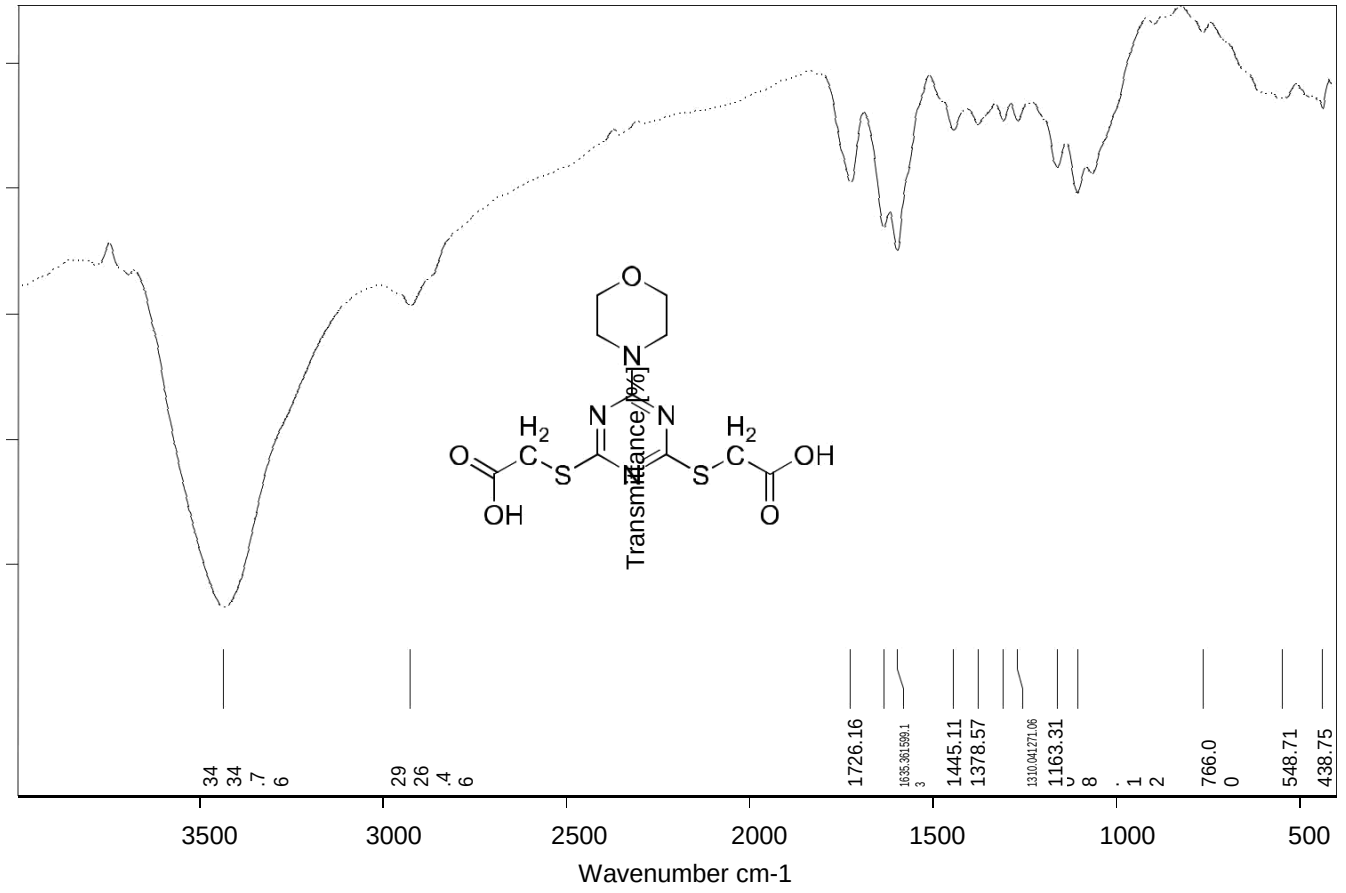


**Figure 4**: IR (KBr) of 2,2'-(6-morpholino-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **10**.

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**Page 1/1**

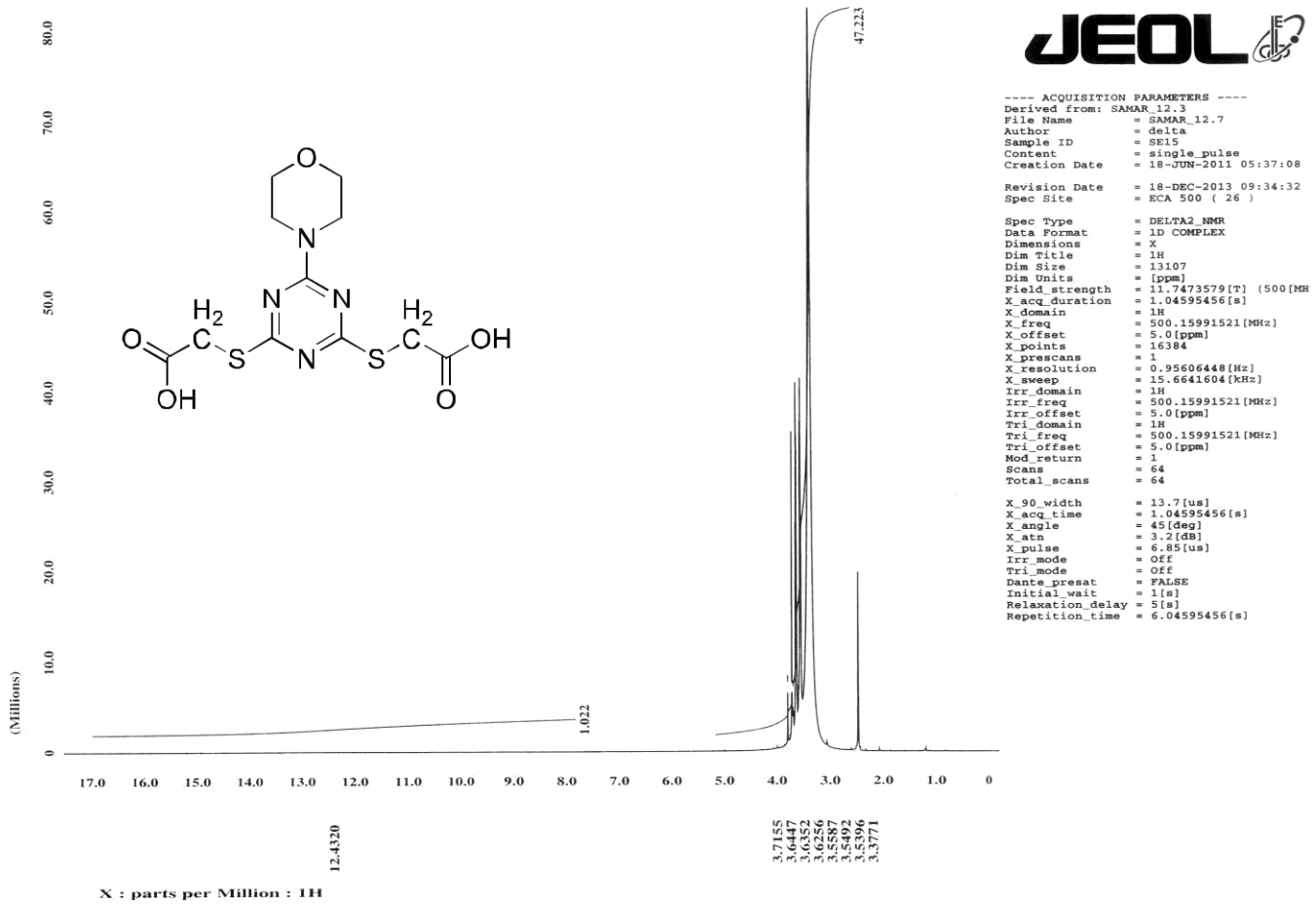


**Figure 5**: $^{1}$H-NMR (DMSO-d$_6$) of 2,2'-(6-morpholino-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **10**.

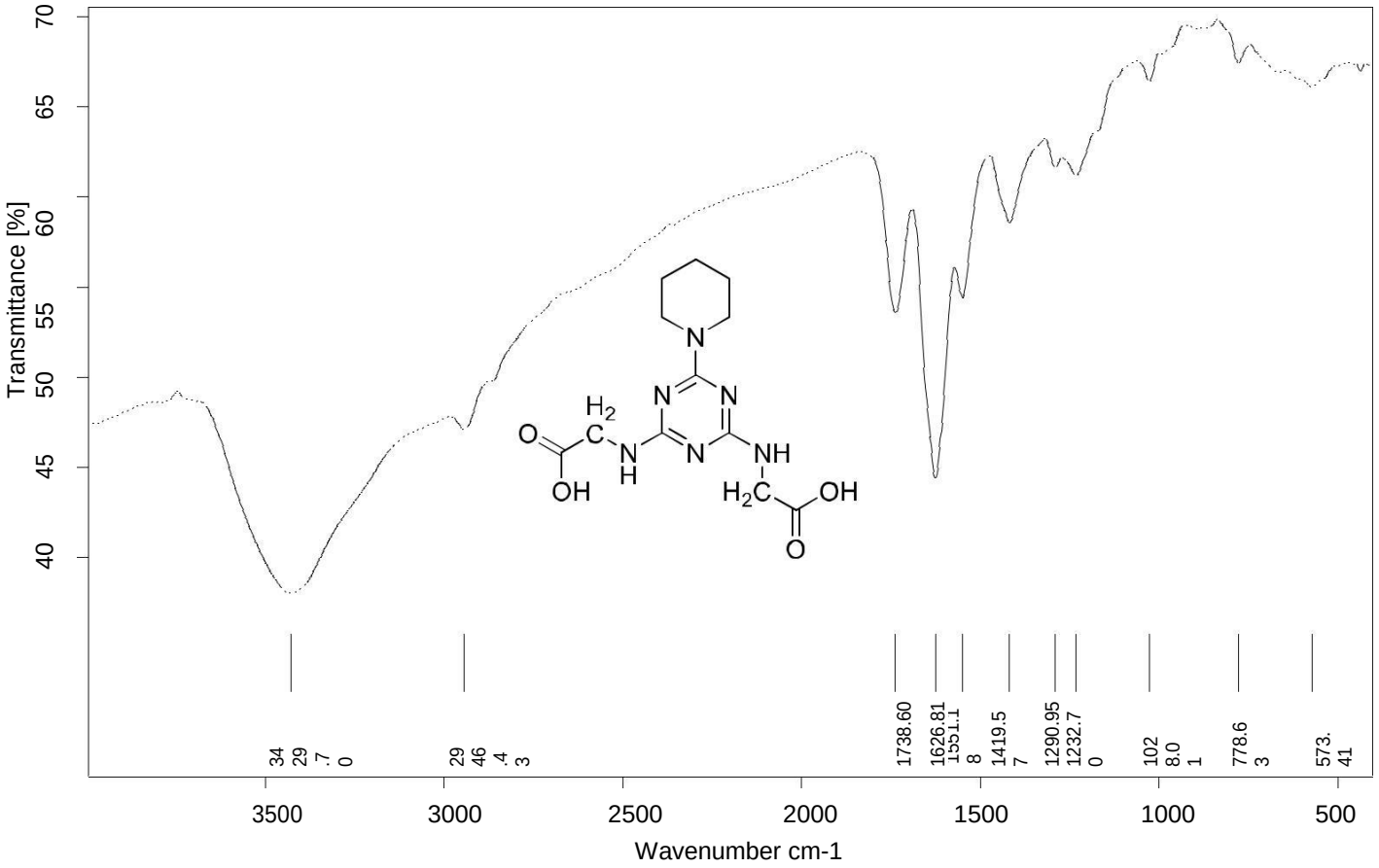


**Figure 6**: IR (KBr) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **11**.

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**Page 1/1**

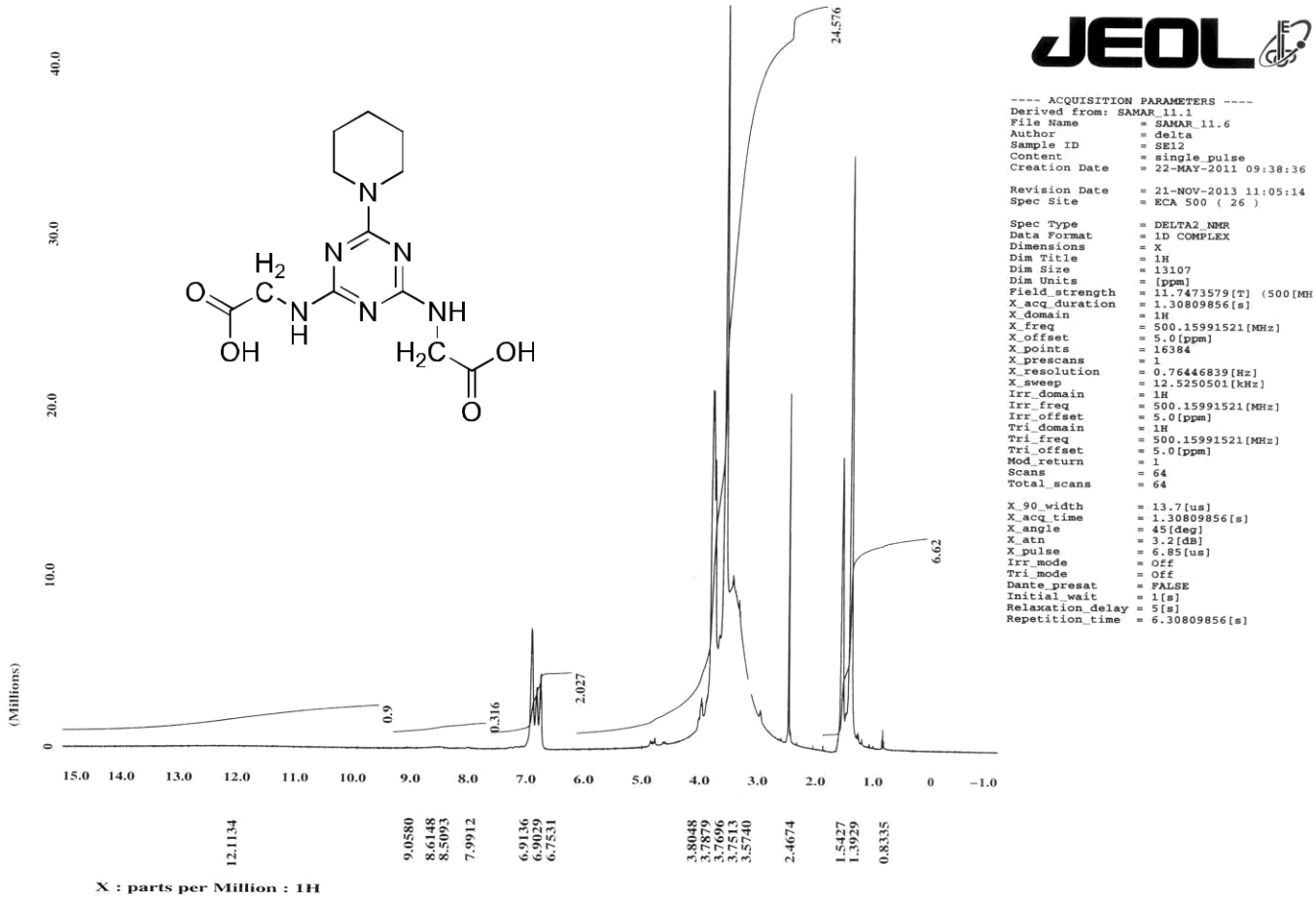


**Figure 7**: $^{1}$H-NMR (DMSO-d$_6$) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **11**.

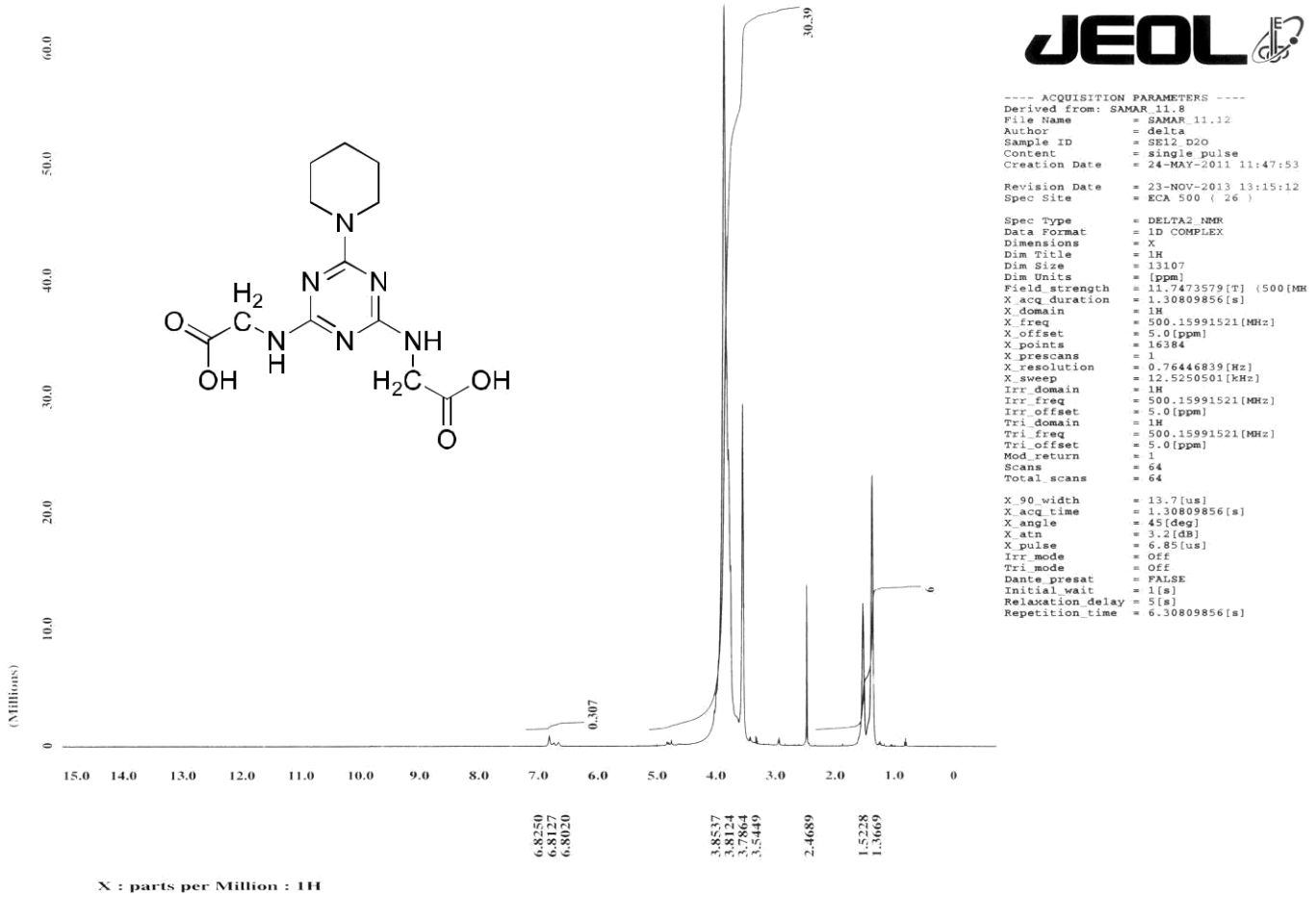


**Figure 8**: $^{1}$H-NMR (DMSO, $D_2O$) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **11**.

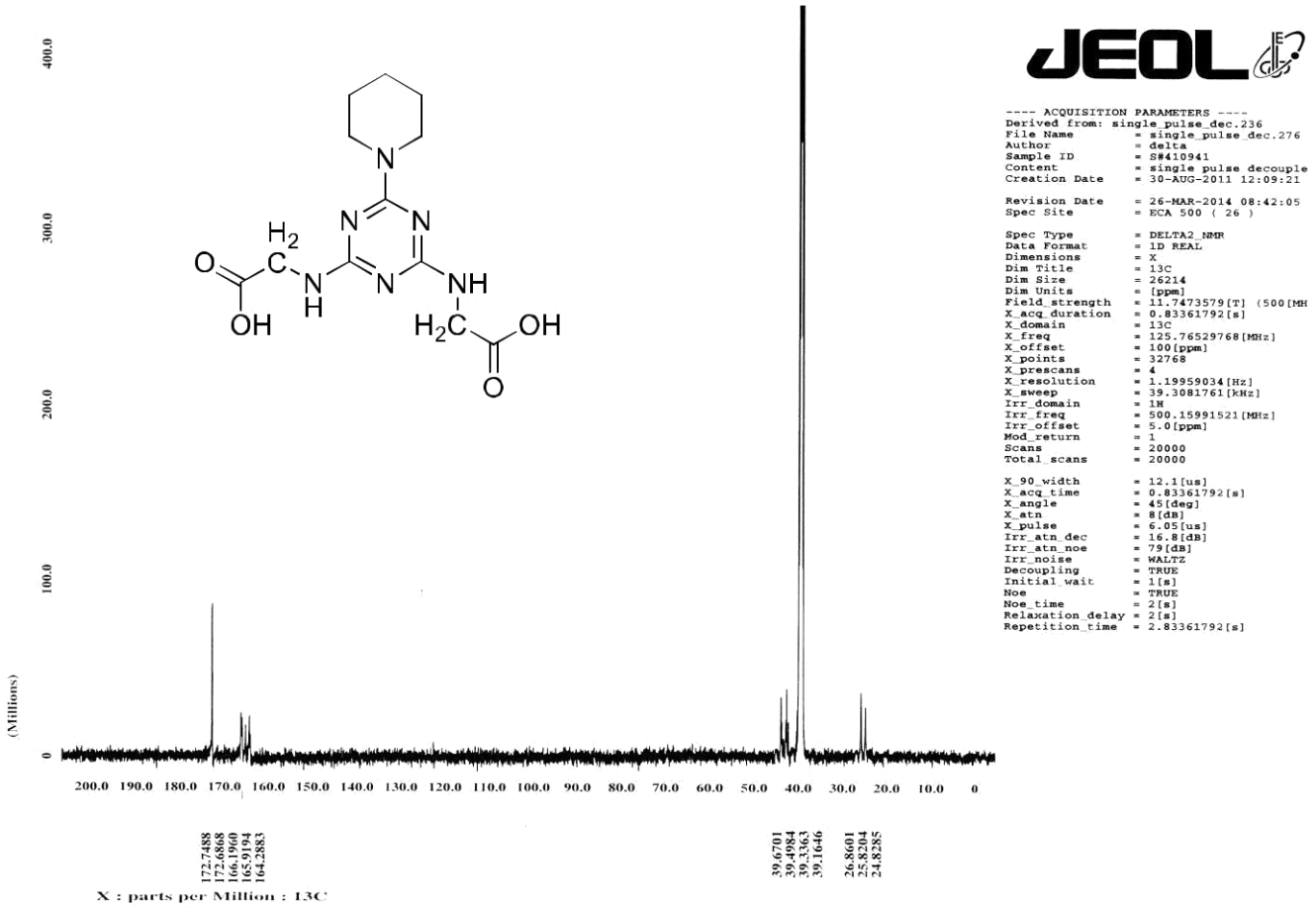


**Figure 9**: $^{13}$C-NMR (DMSO-d$_6$) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **11**.

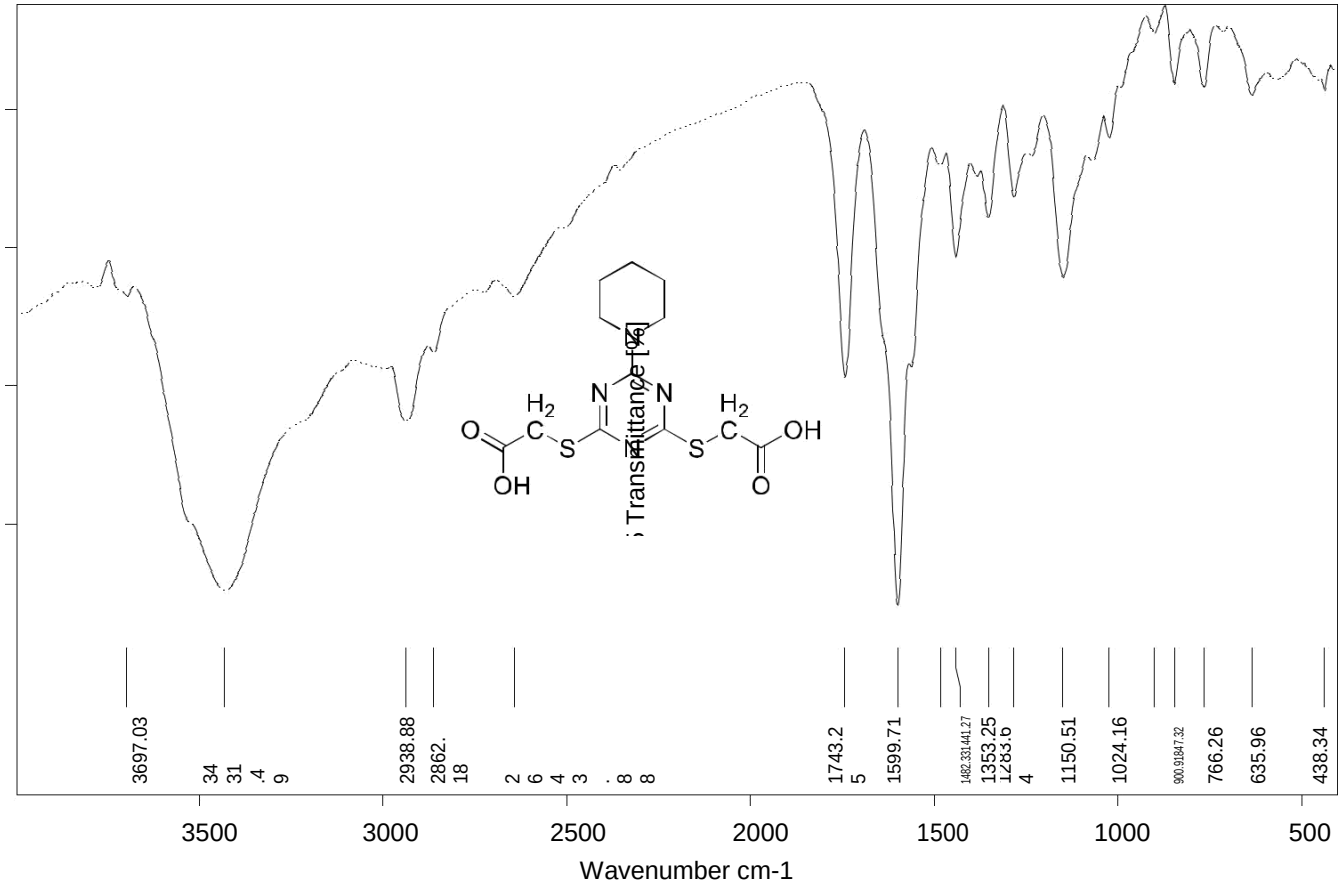


**Figure 10**: IR (KBr) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **12**.

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**Page 1/1**

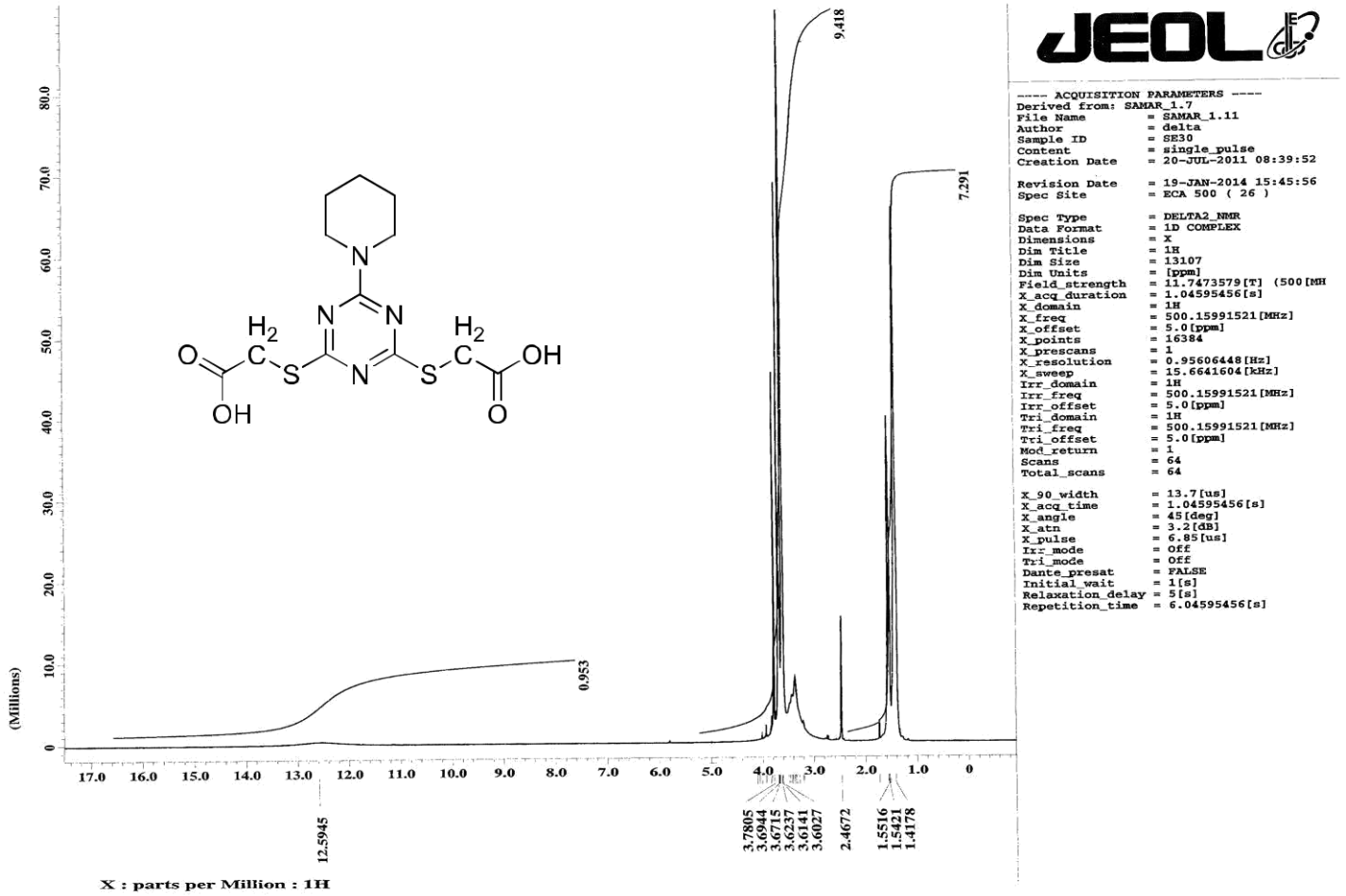


**Figure 11**: $^{1}$H-NMR (DMSO-d$_6$) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **12**.

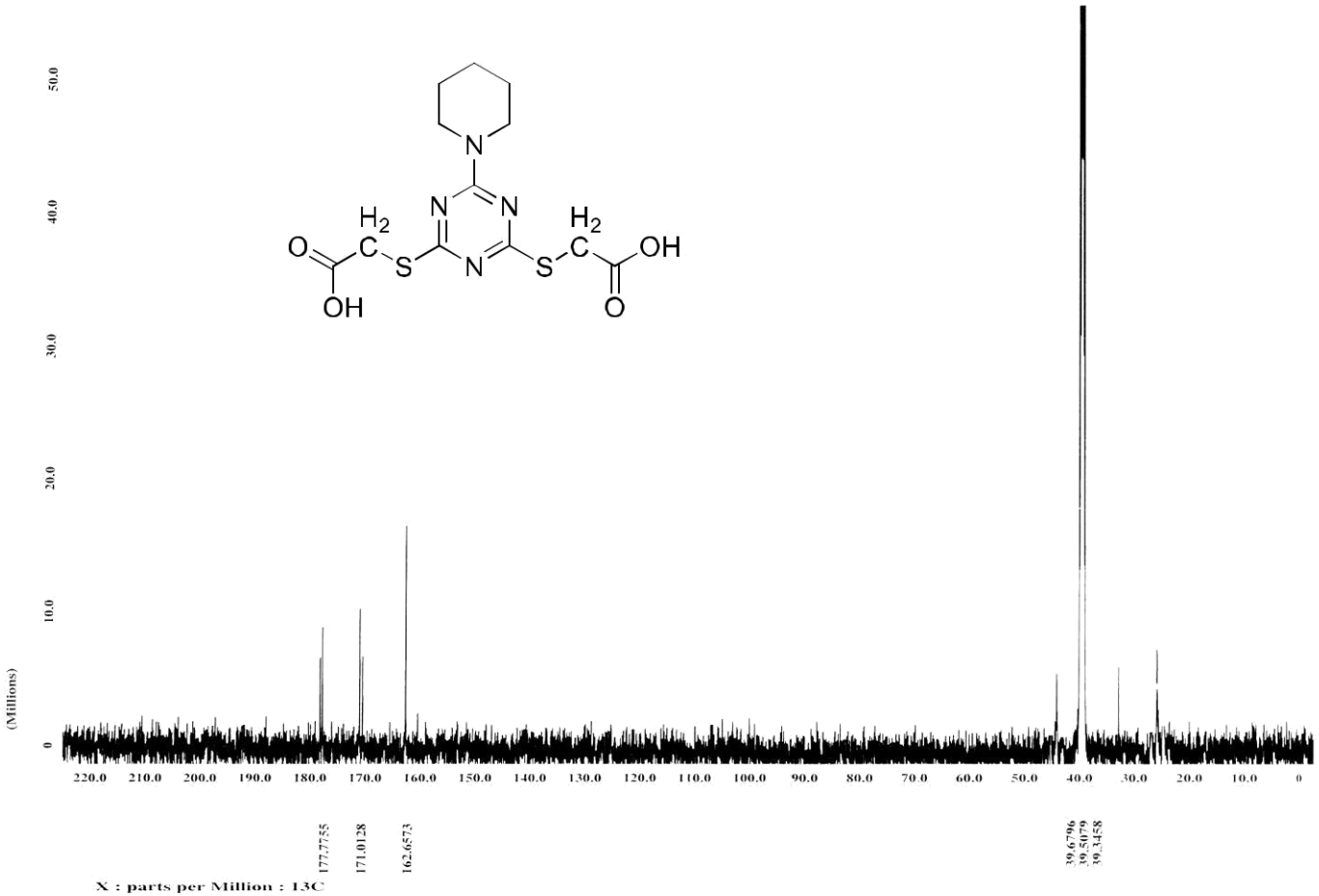


**Figure 12**: $^{13}$C-NMR (DMSO-d$_6$) of 2,2'-(6-(piperidin-1-yl)-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **12**.

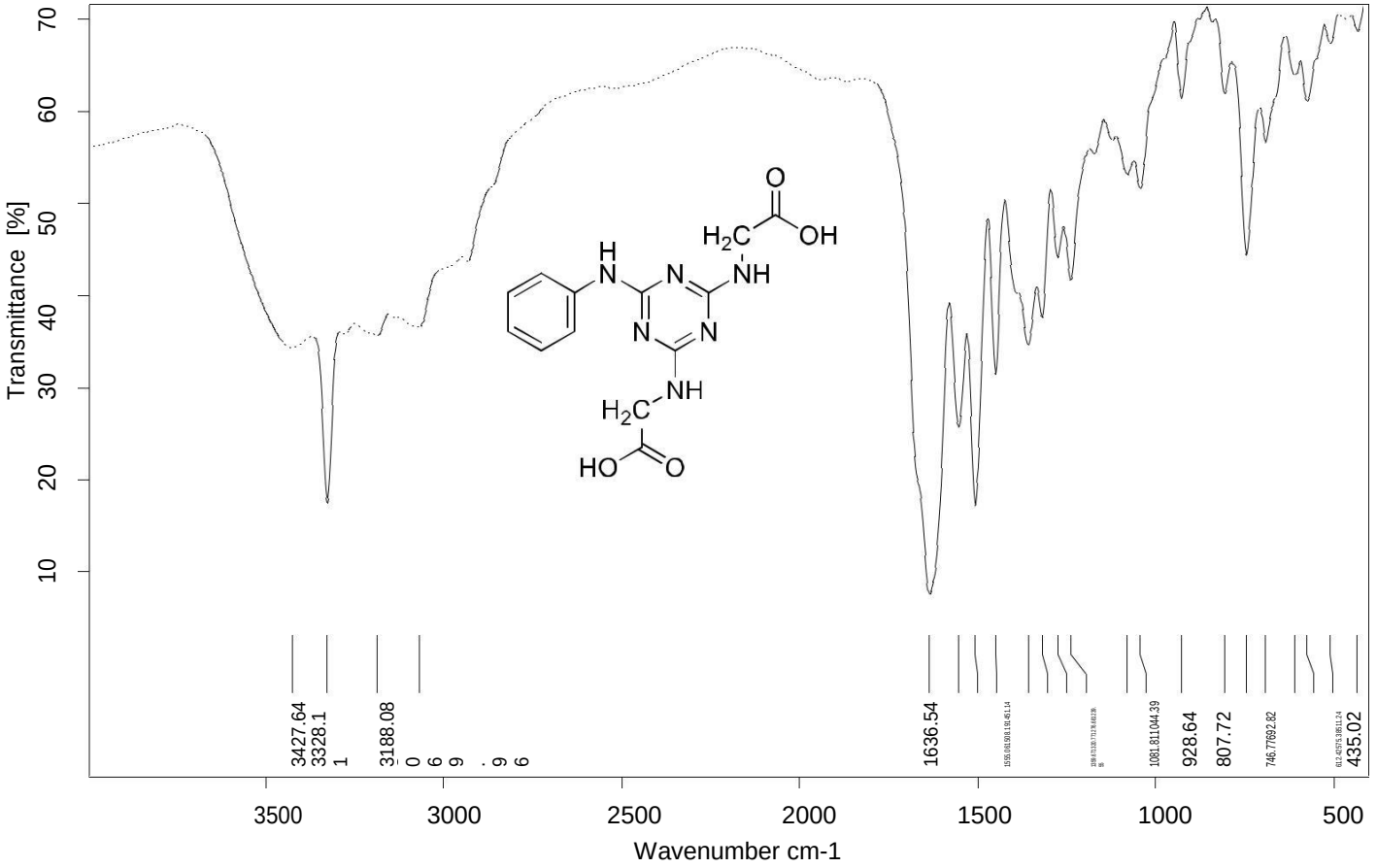


**Figure 13**: IR (KBr) of 2,2'-(6-(phenylamino)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **13**.

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**Page 1/1**

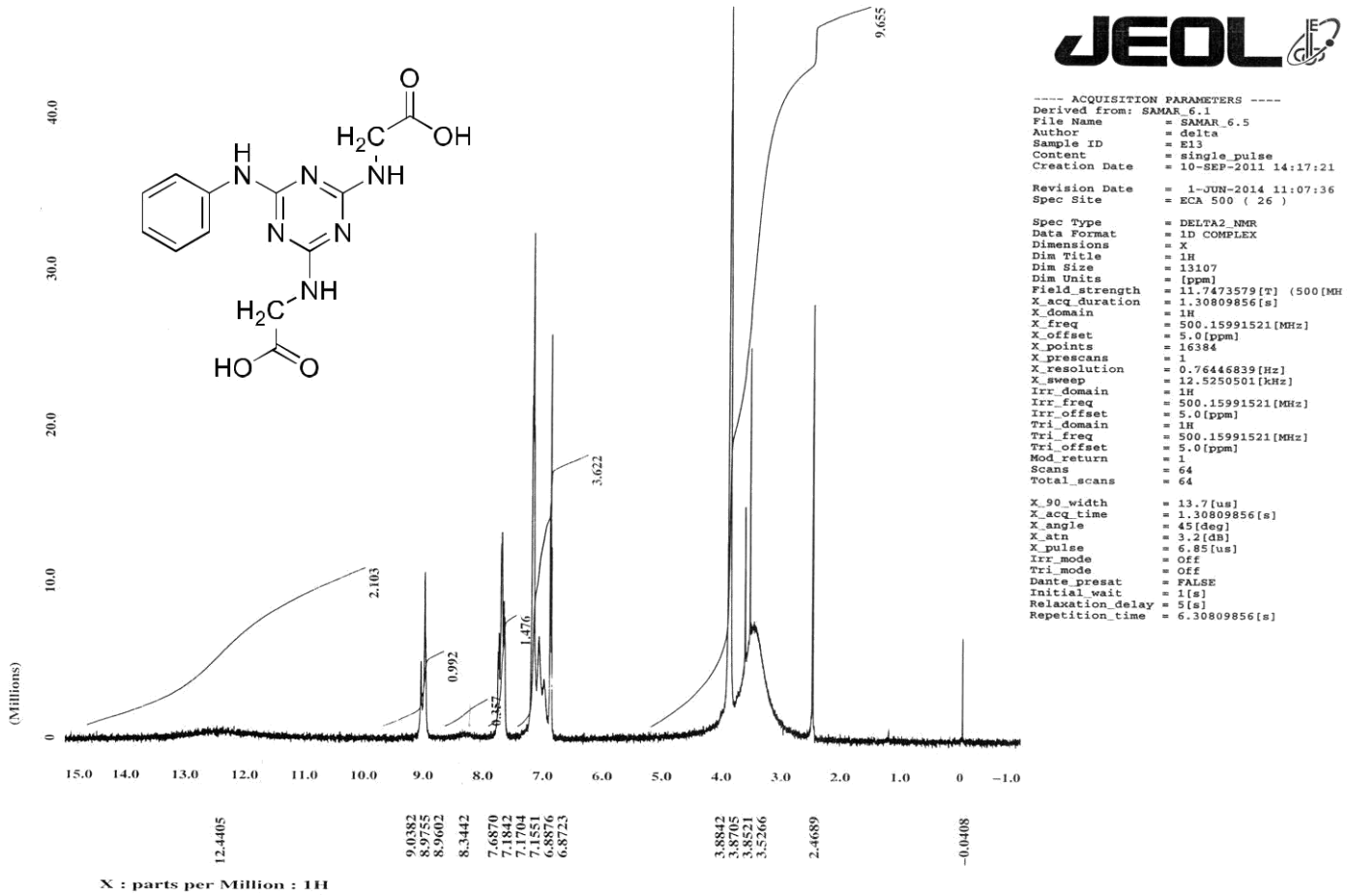


**Figure 14**: $^{1}$H-NMR (DMSO-d$_6$) of 2,2'-(6-(phenylamino)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **13**.

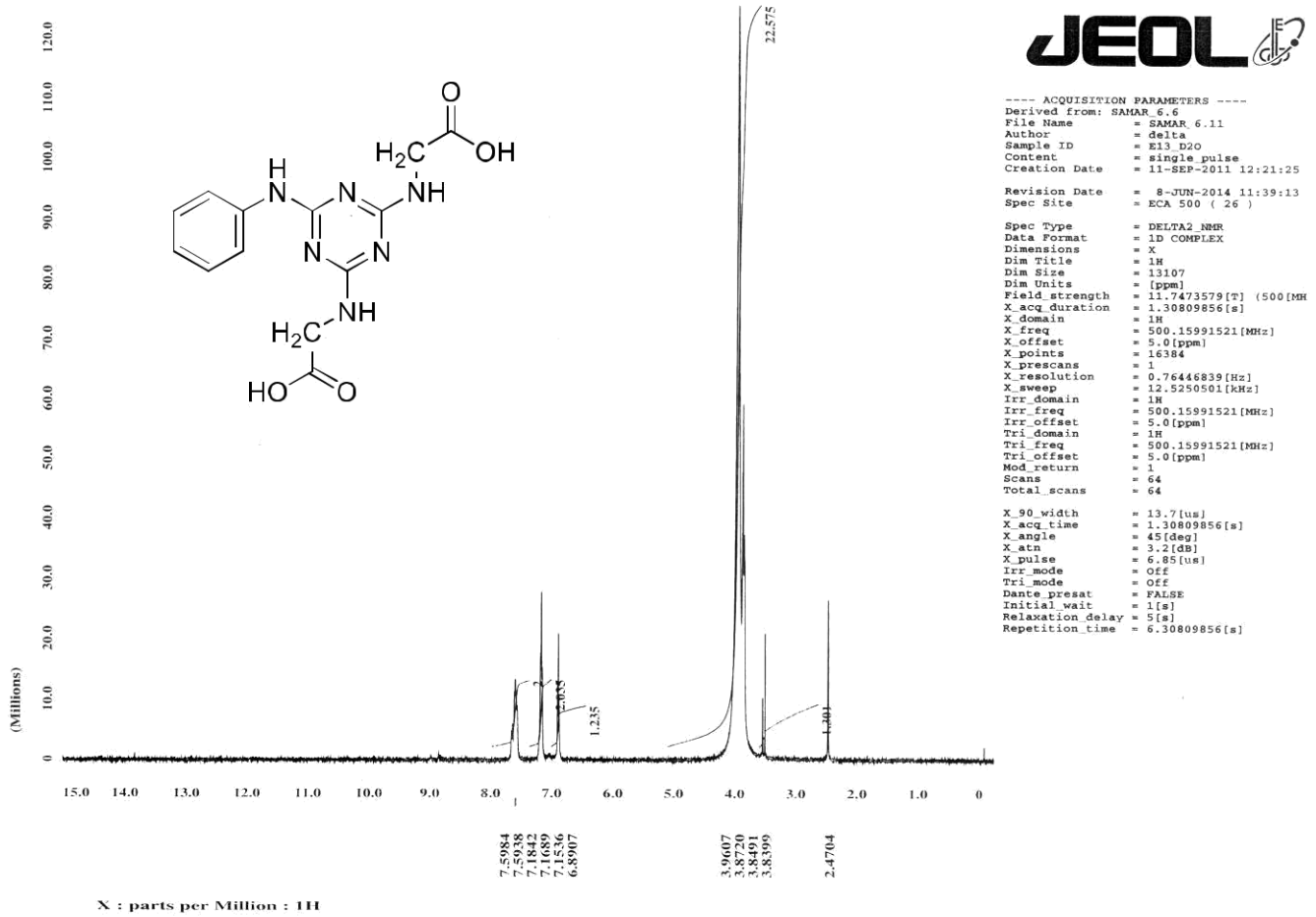


**Figure 15**: $^{1}$H-NMR (DMSO, $D_2O$) of 2,2'-(6-(phenylamino)-1,3,5-triazine-2,4-diyl)bis(azanediyl)diacetic acid **13**.

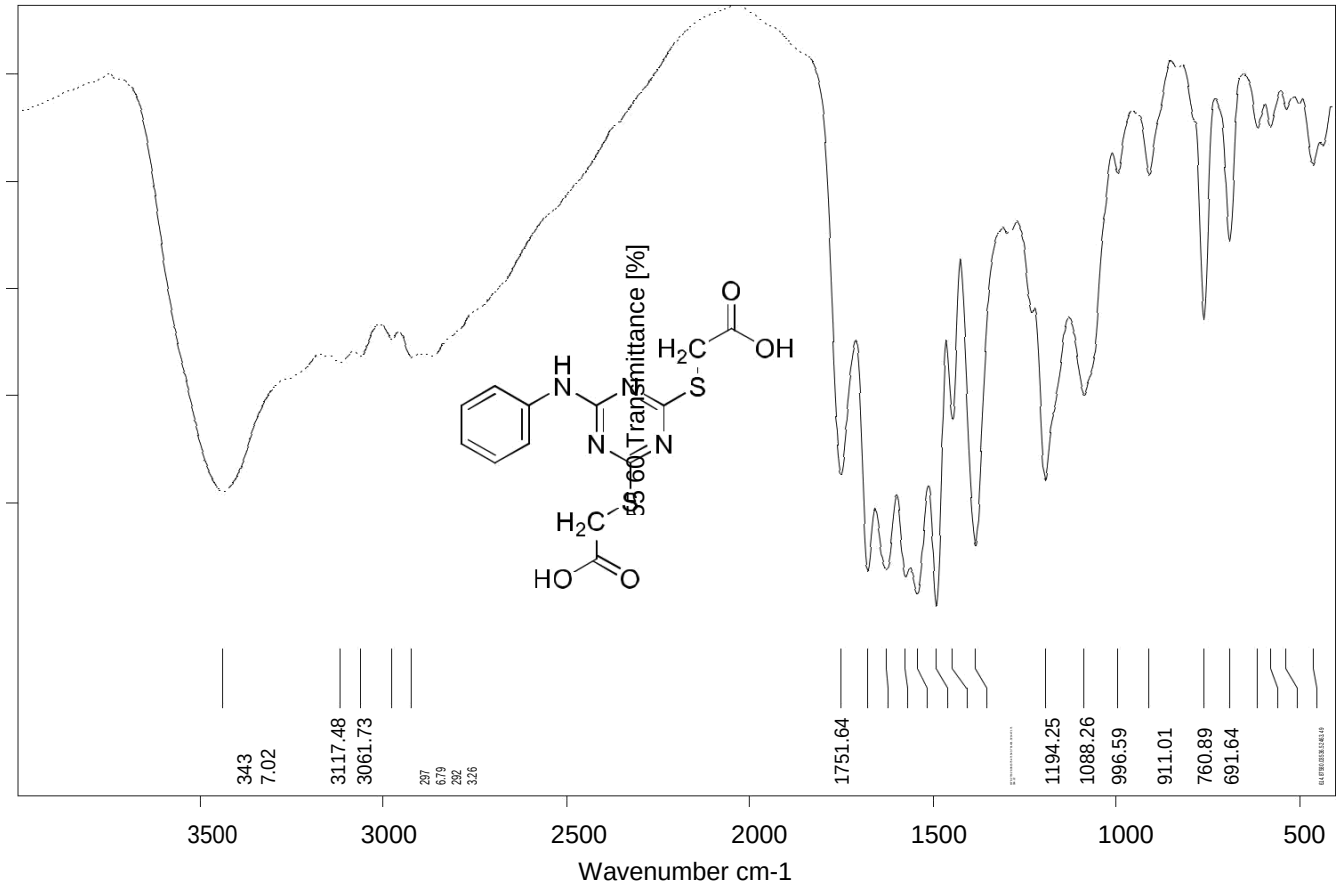


**Figure 16**: IR (KBr) of 2,2'-(6-(phenylamino)-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **14**.

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**Page 1/1**

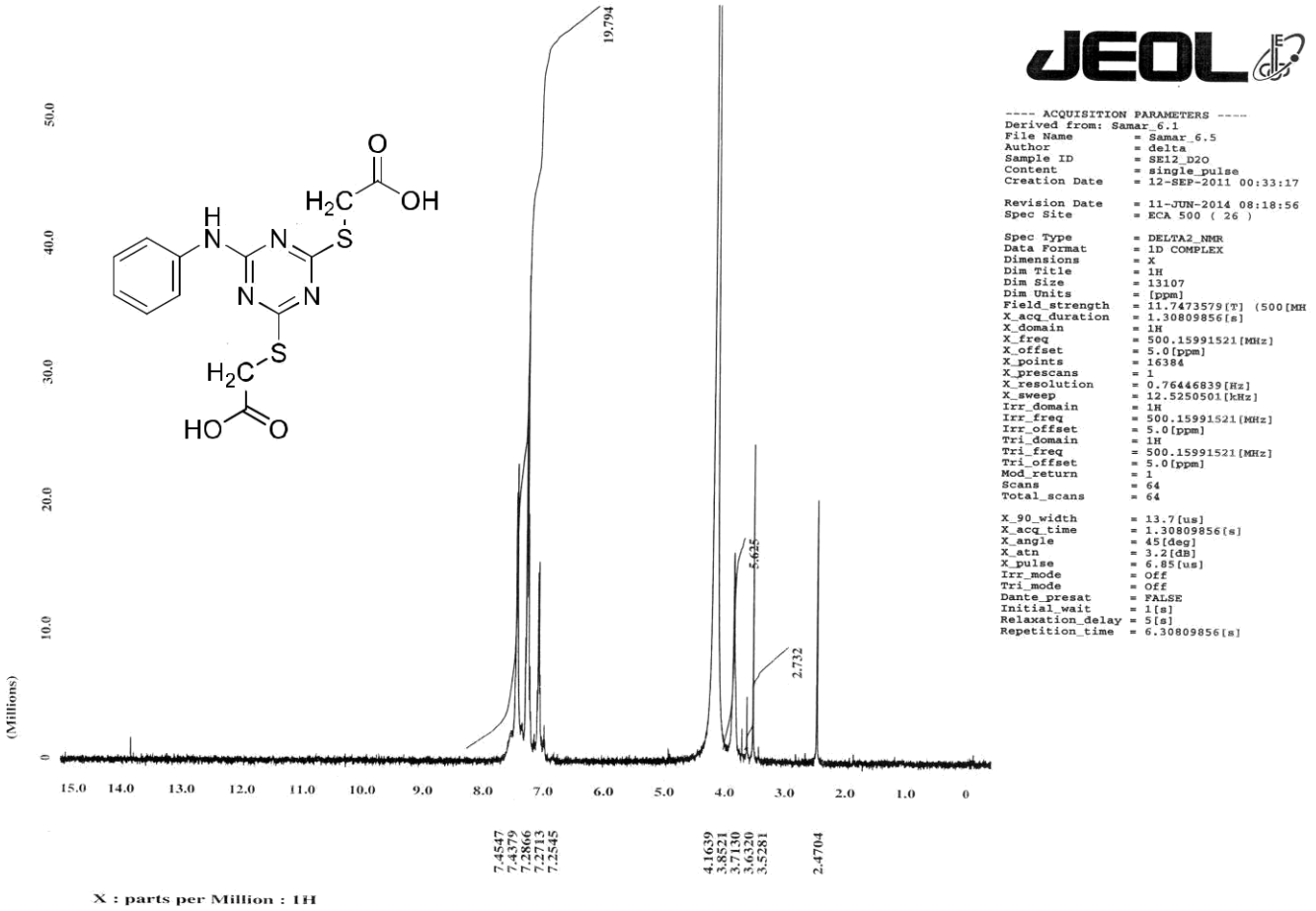


**Figure 17**: $^{1}$H-NMR (DMSO, $D_2O$) of 2,2'-(6-(phenylamino)-1,3,5-triazine-2,4-diyl)bis(sulfanediyl)diacetic acid **14**.

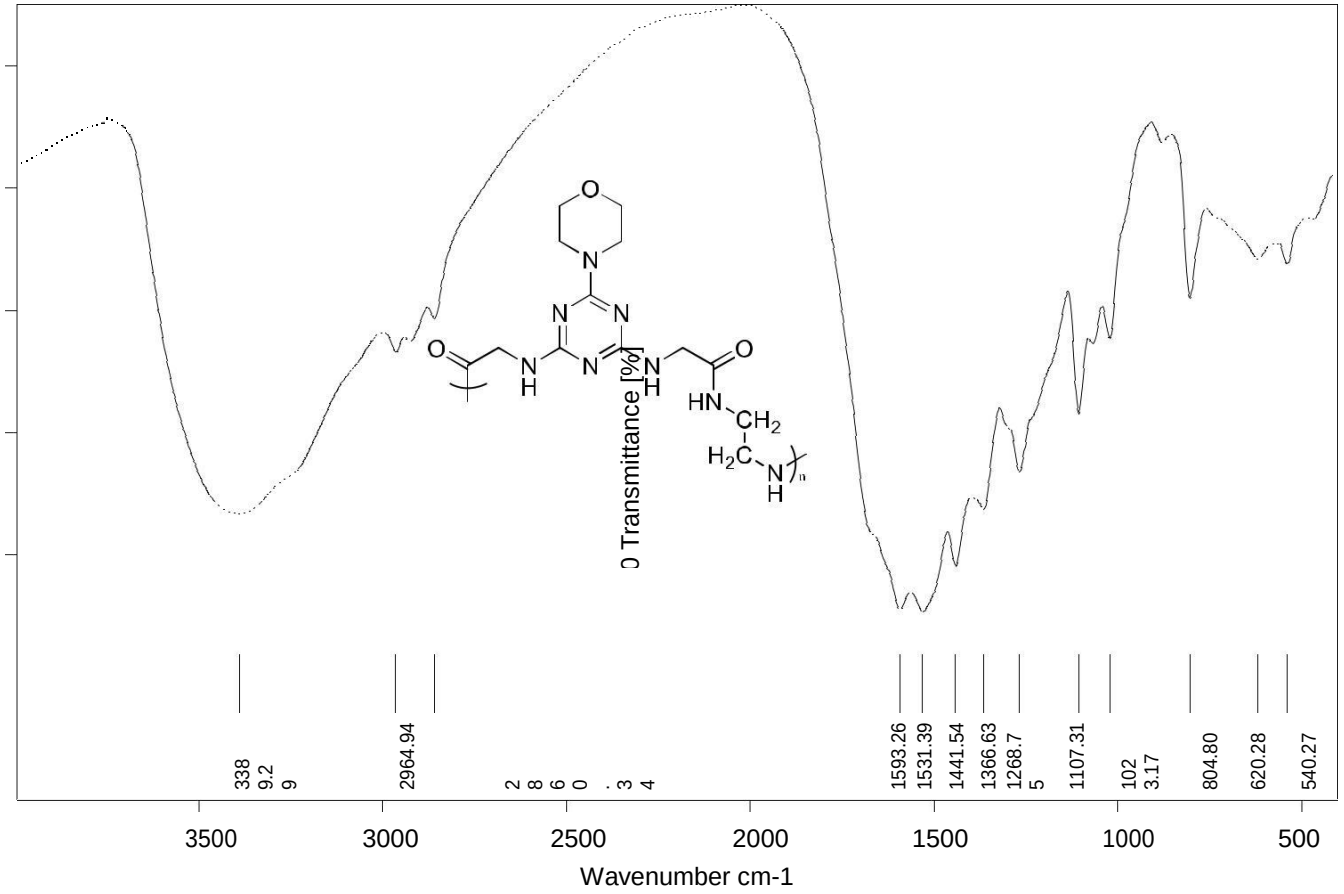


**Figure 18**: IR (KBr) of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **25**.

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**Page 1/1**

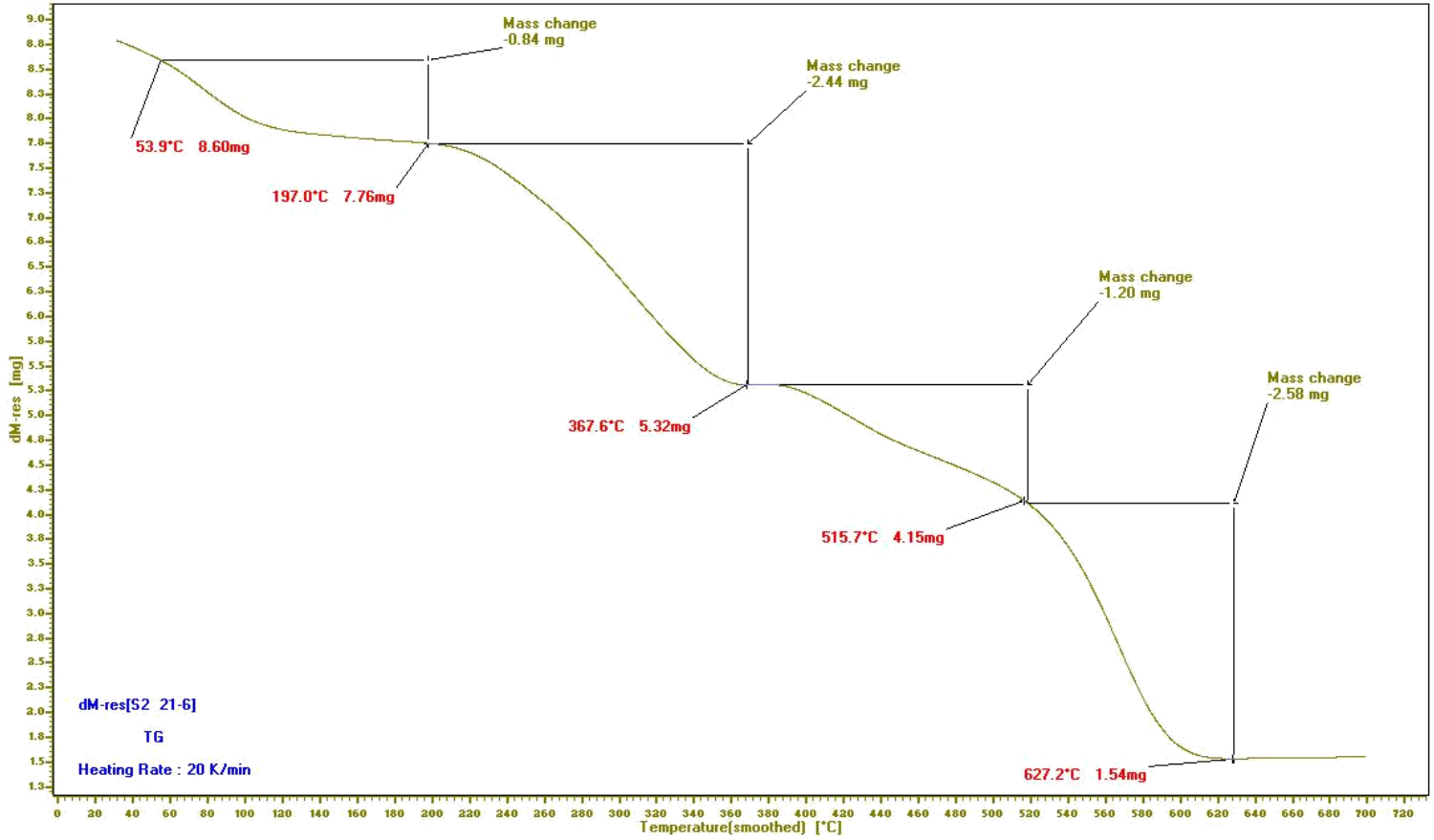


**Figure 19**: TGA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **25.**

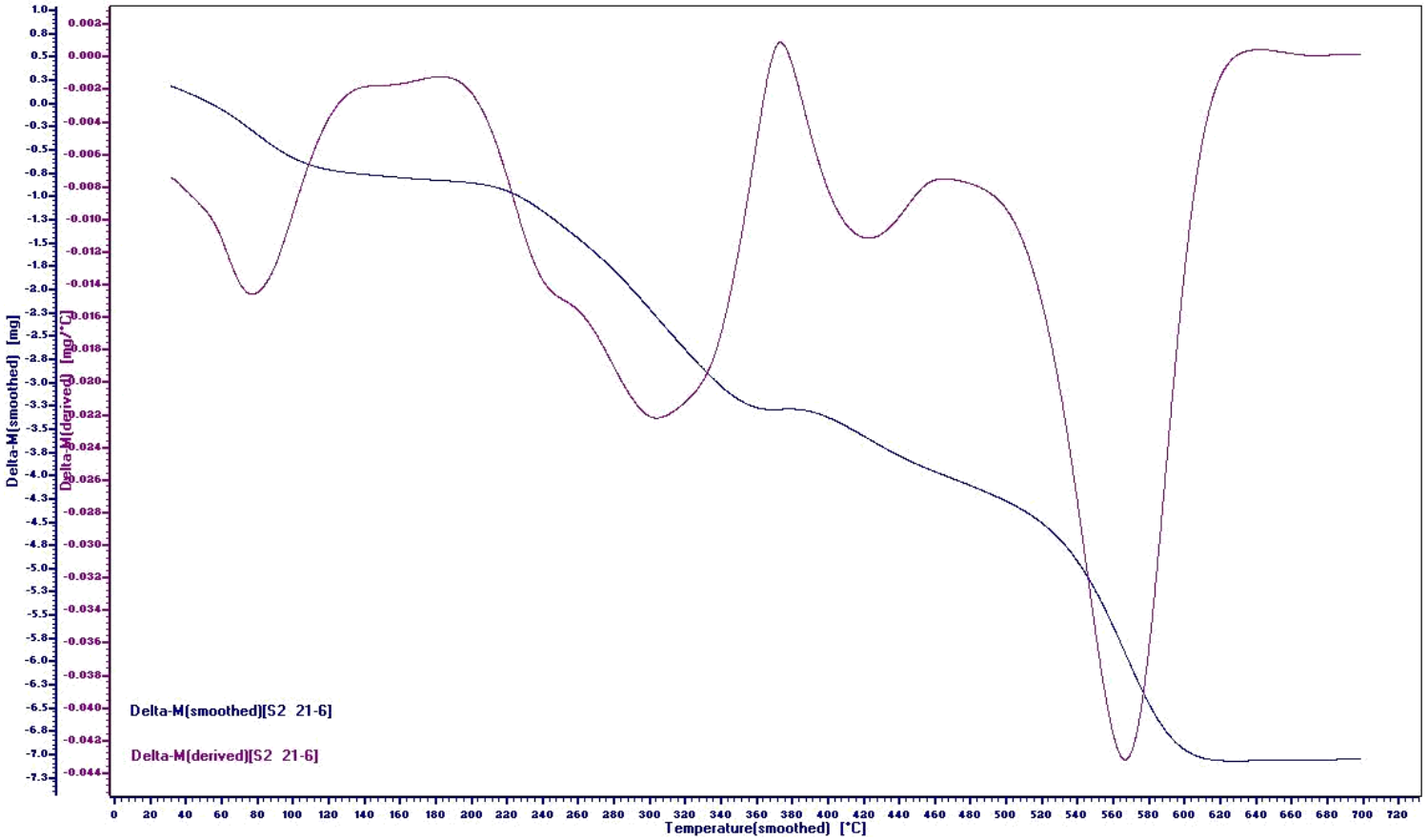


**Figure 20**: TGA/DTG of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **25**.

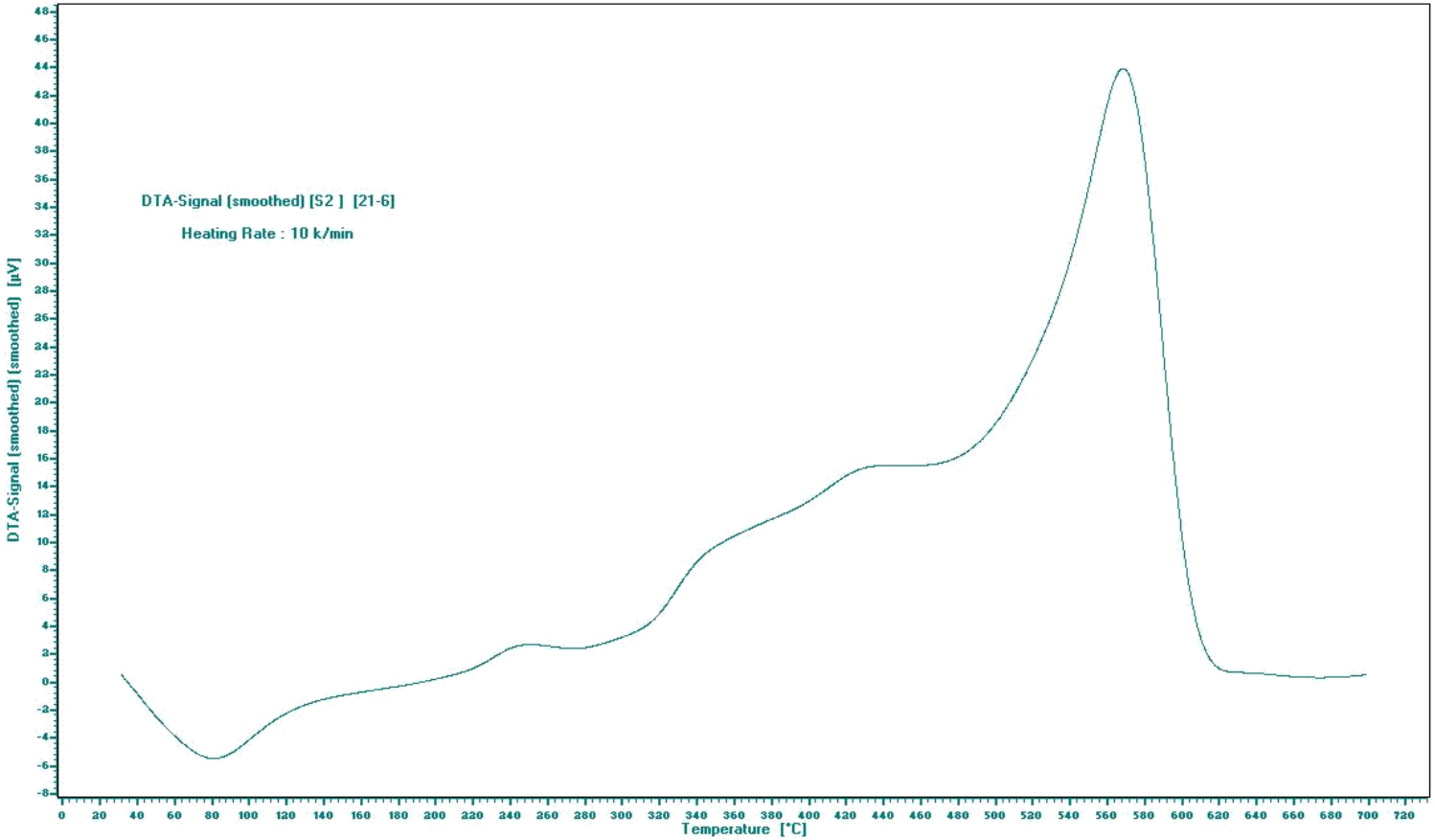


**Figure 21**: DTA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **25**.

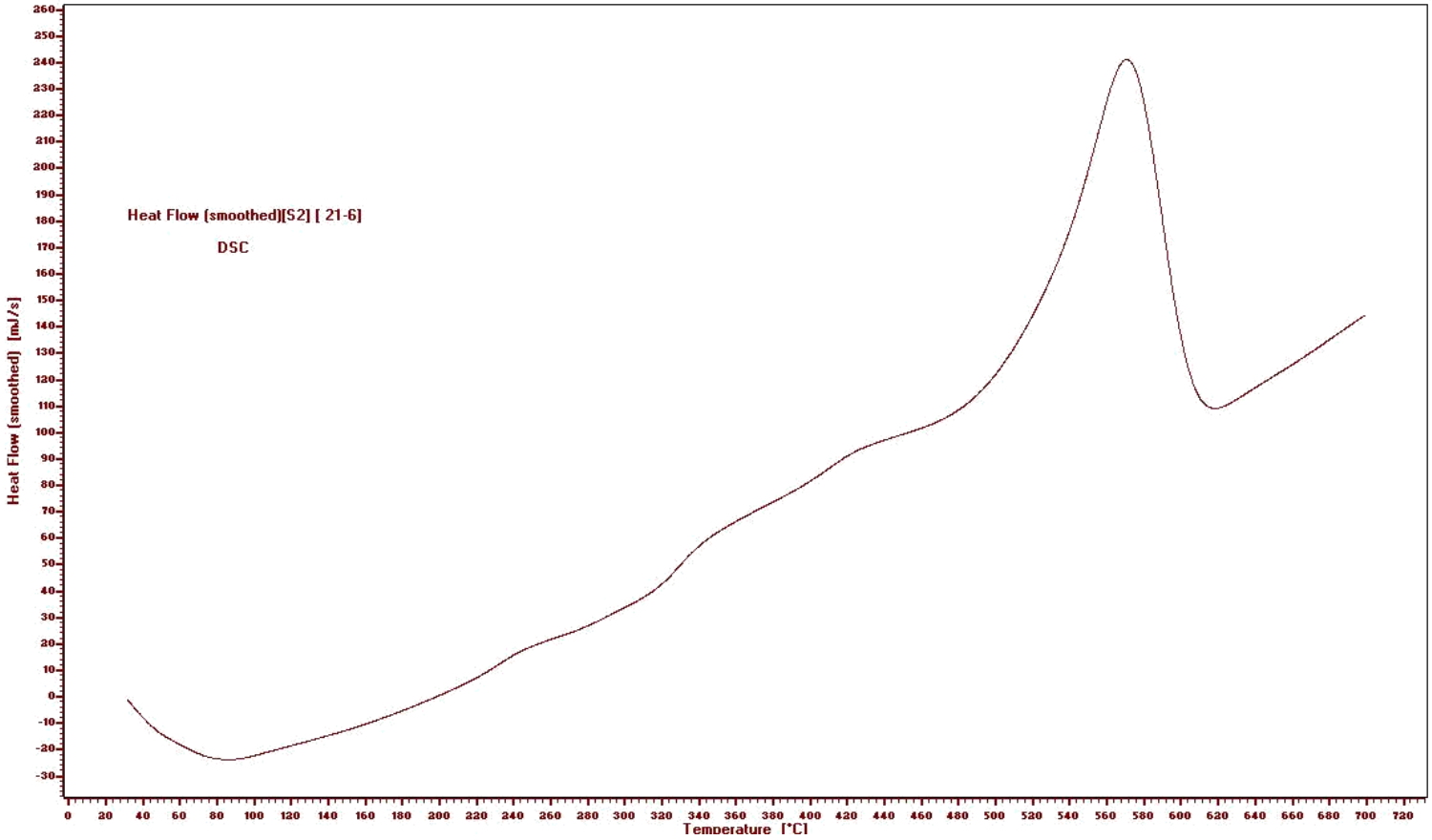


**Figure 22**: DSC of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **25**.

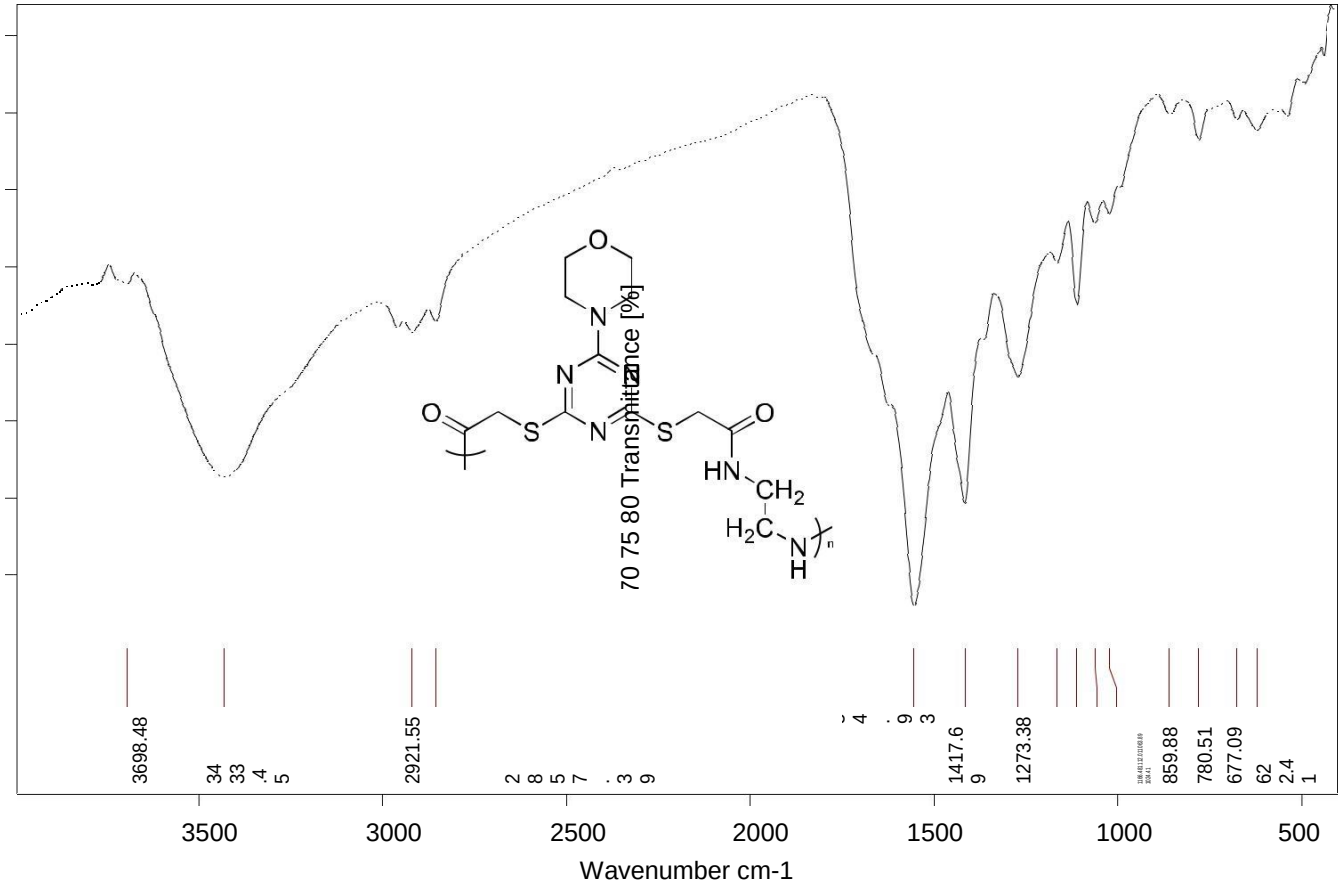


**Figure 23**: IR (KBr) of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **26**.

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**Page 1/1**

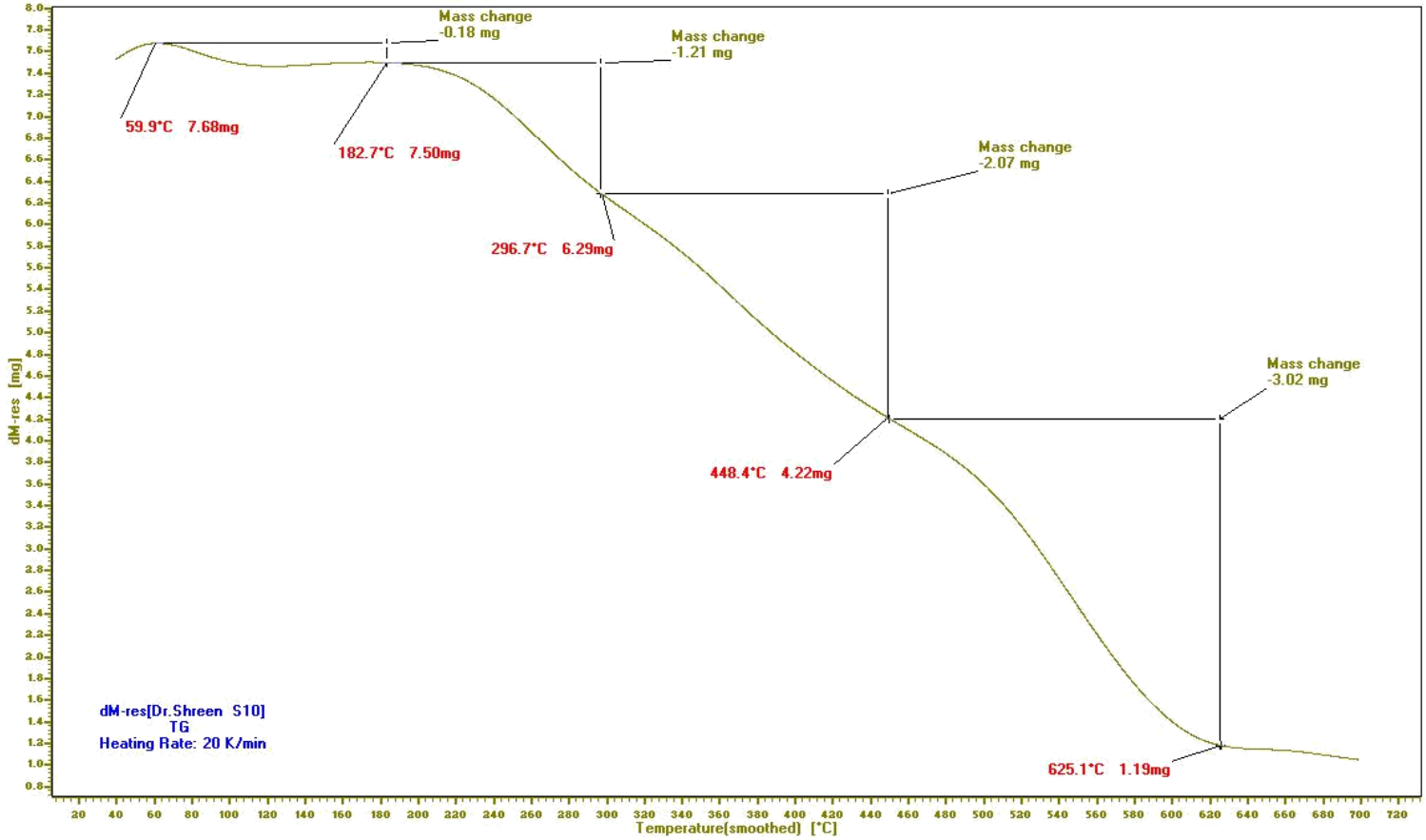


**Figure 24**: TGA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **26**.

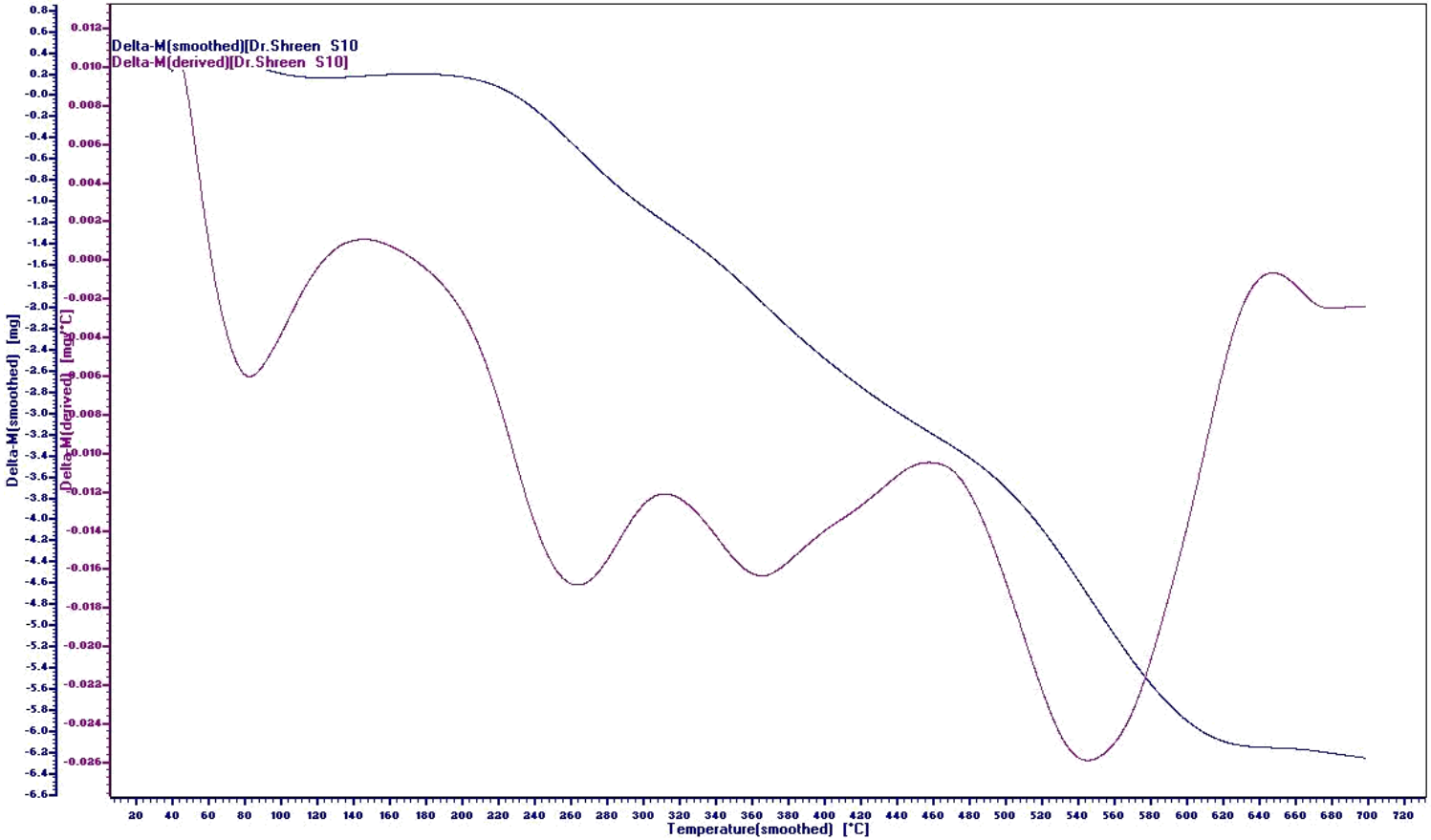


**Figure 25**: TGA/DTG of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **26**.

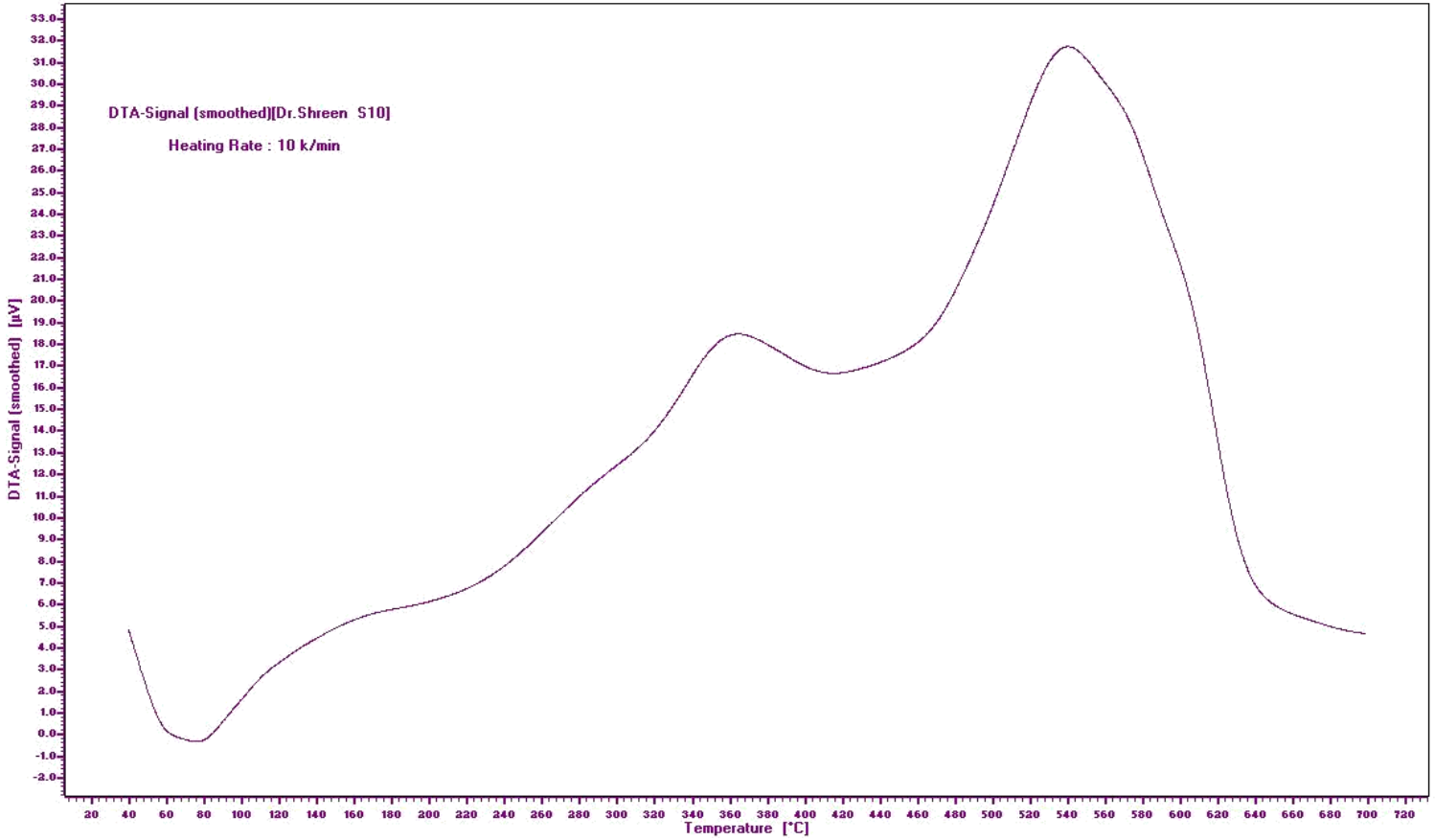


**Figure 26**: DTA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **26**.

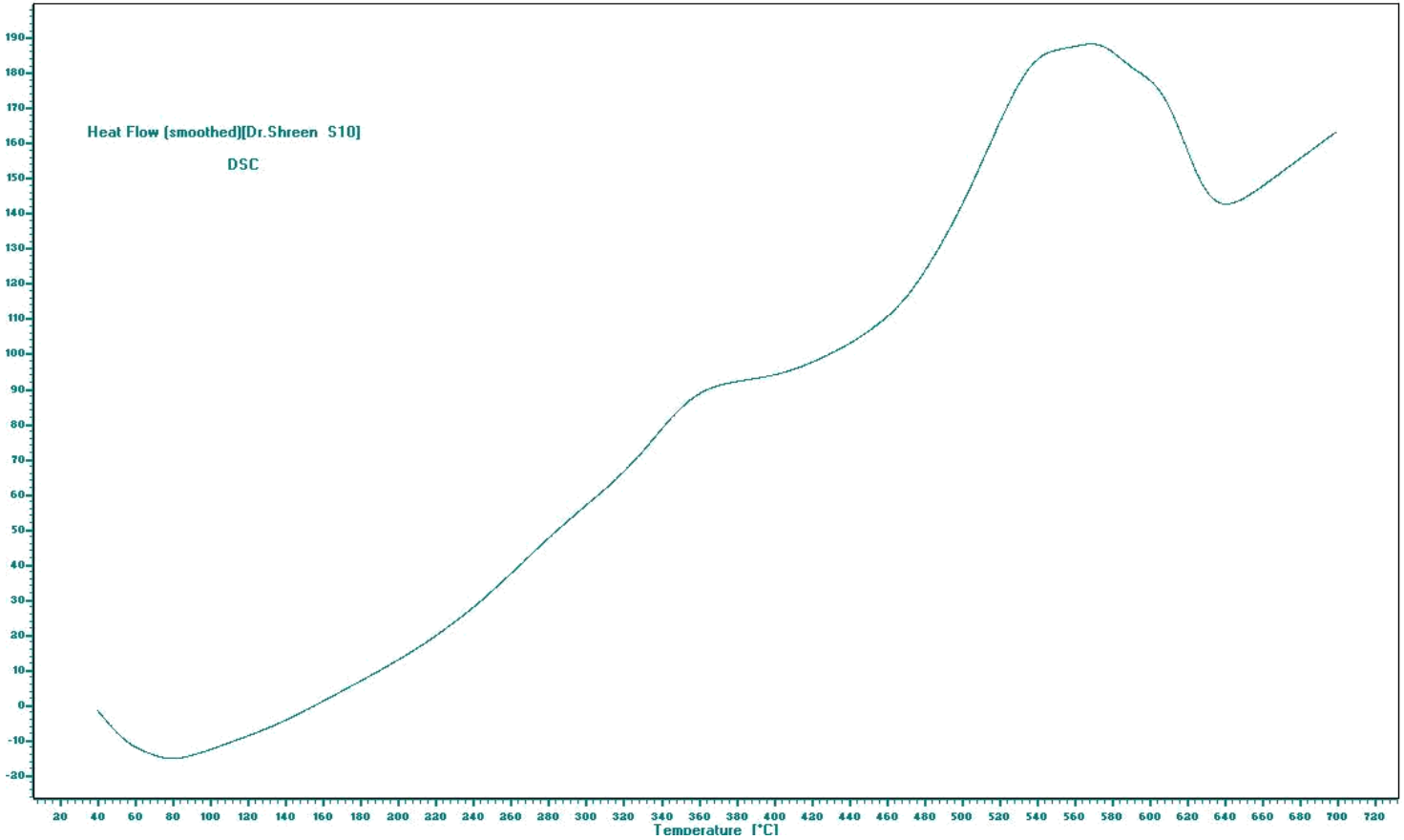


**Figure 27**: DSC of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **26**.

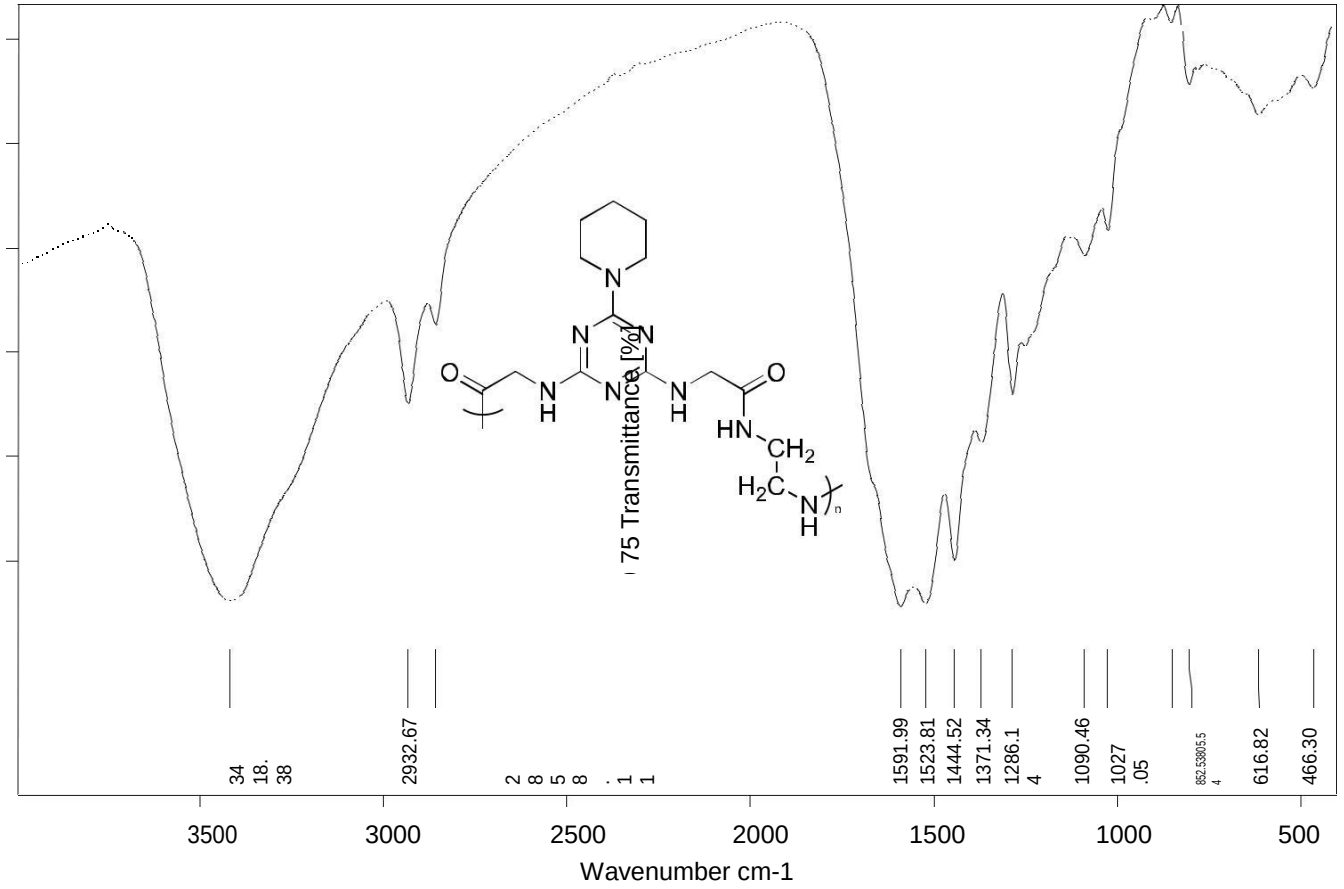


**Figure 28**: IR (KBr) of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **27**.

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**Page 1/1**

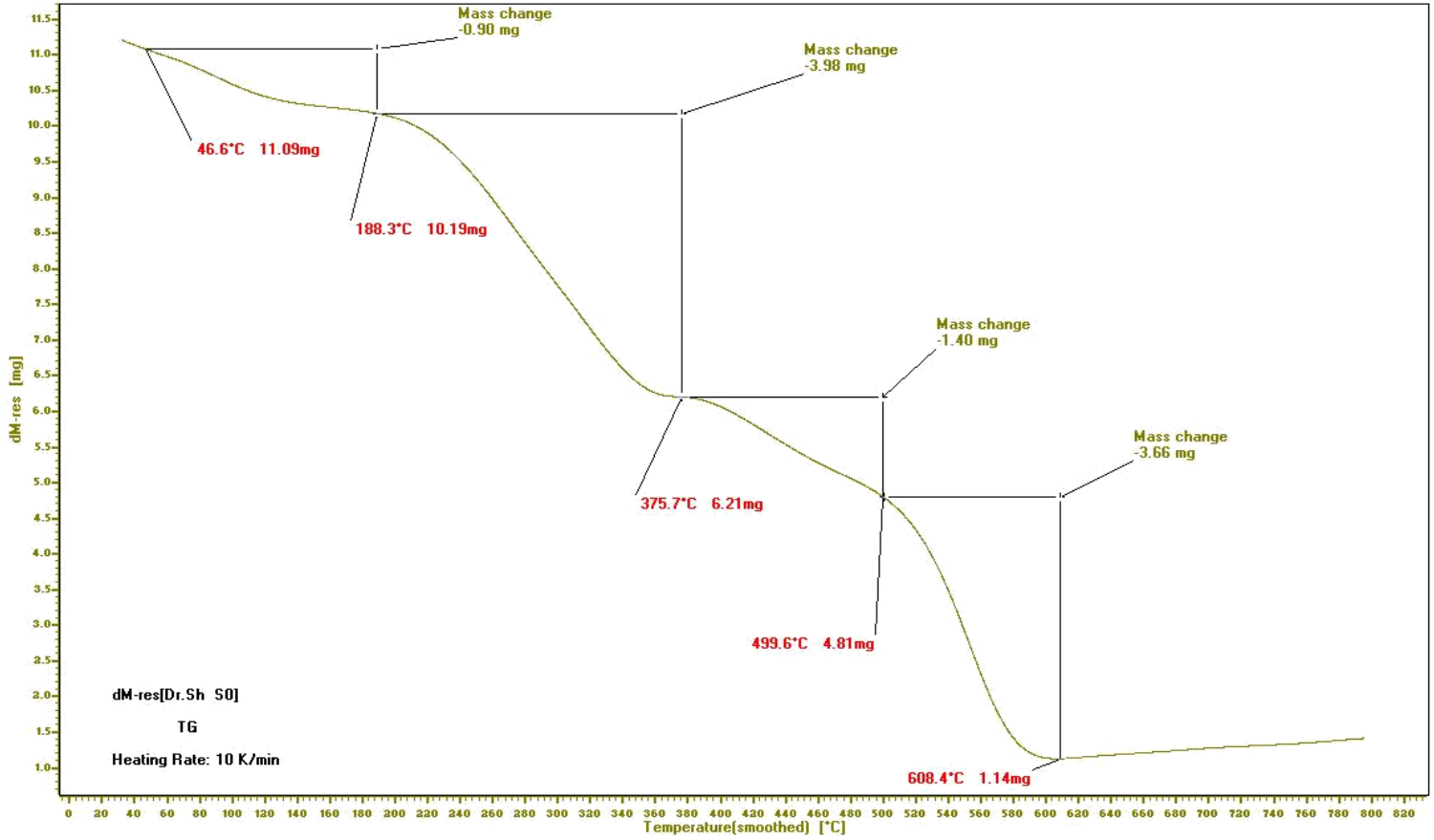


**Figure 29**: TGA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **27**.

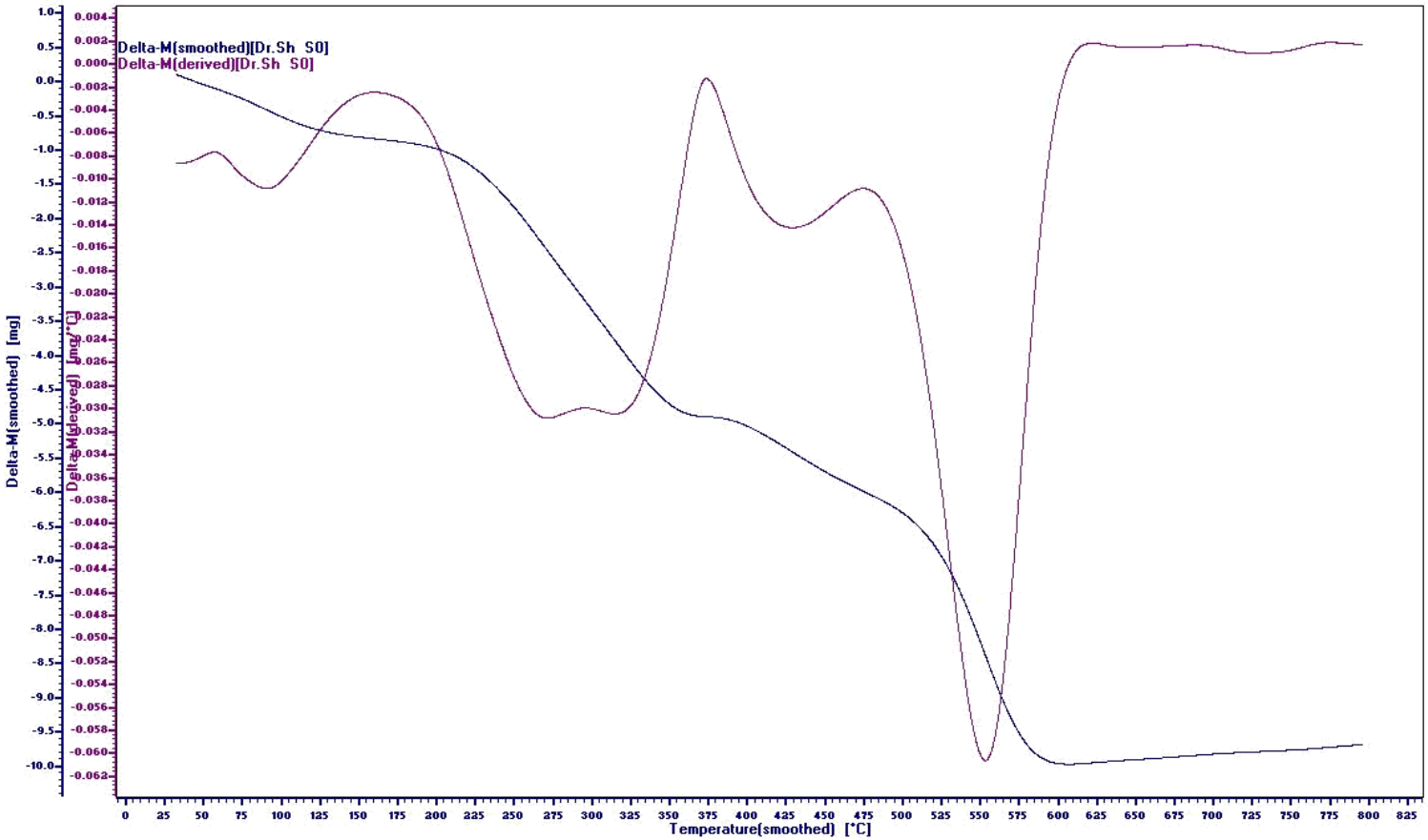


**Figure 30**: TGA/DTG of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **27.**

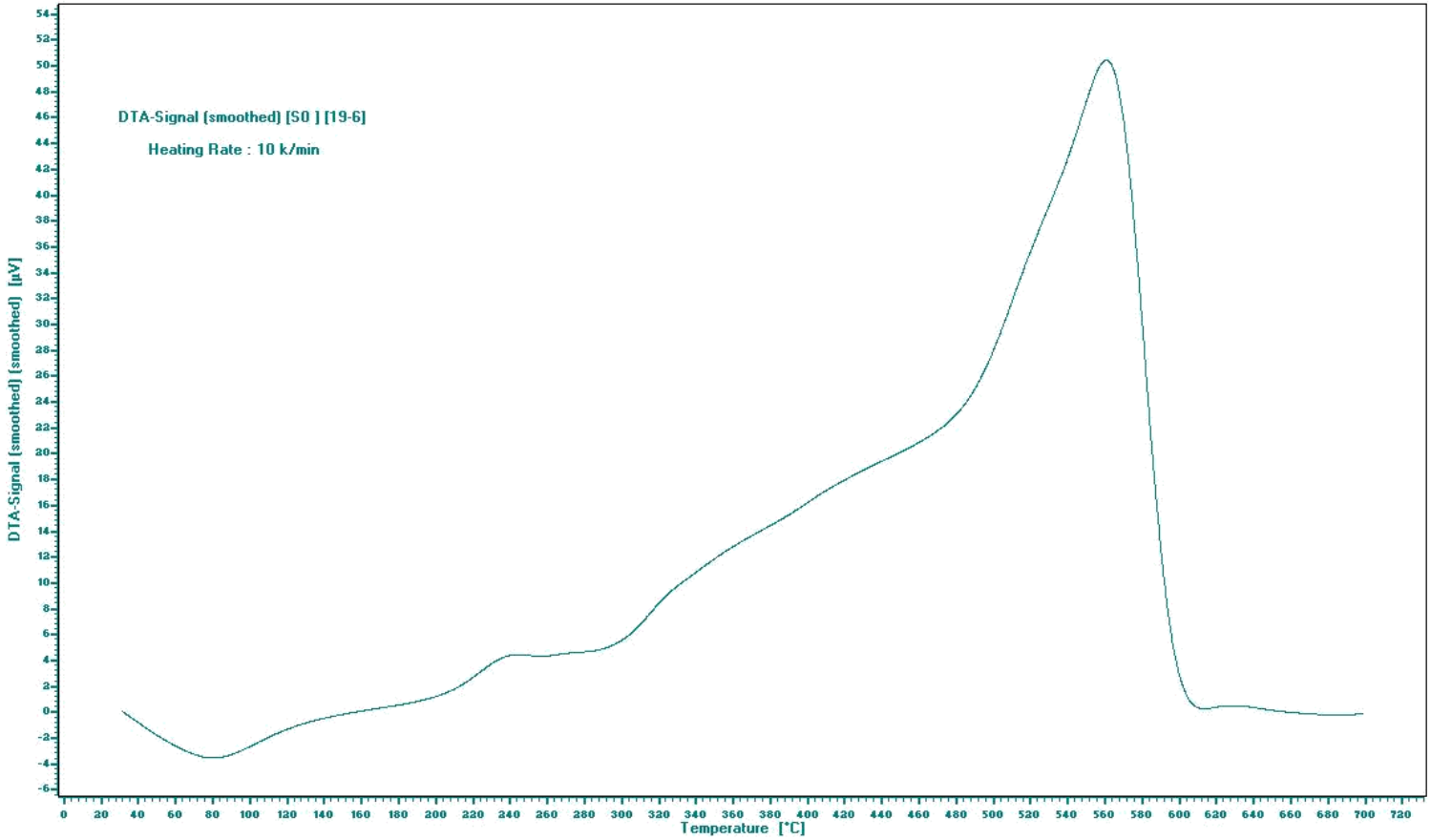


**Figure 31**: DTA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **27**.

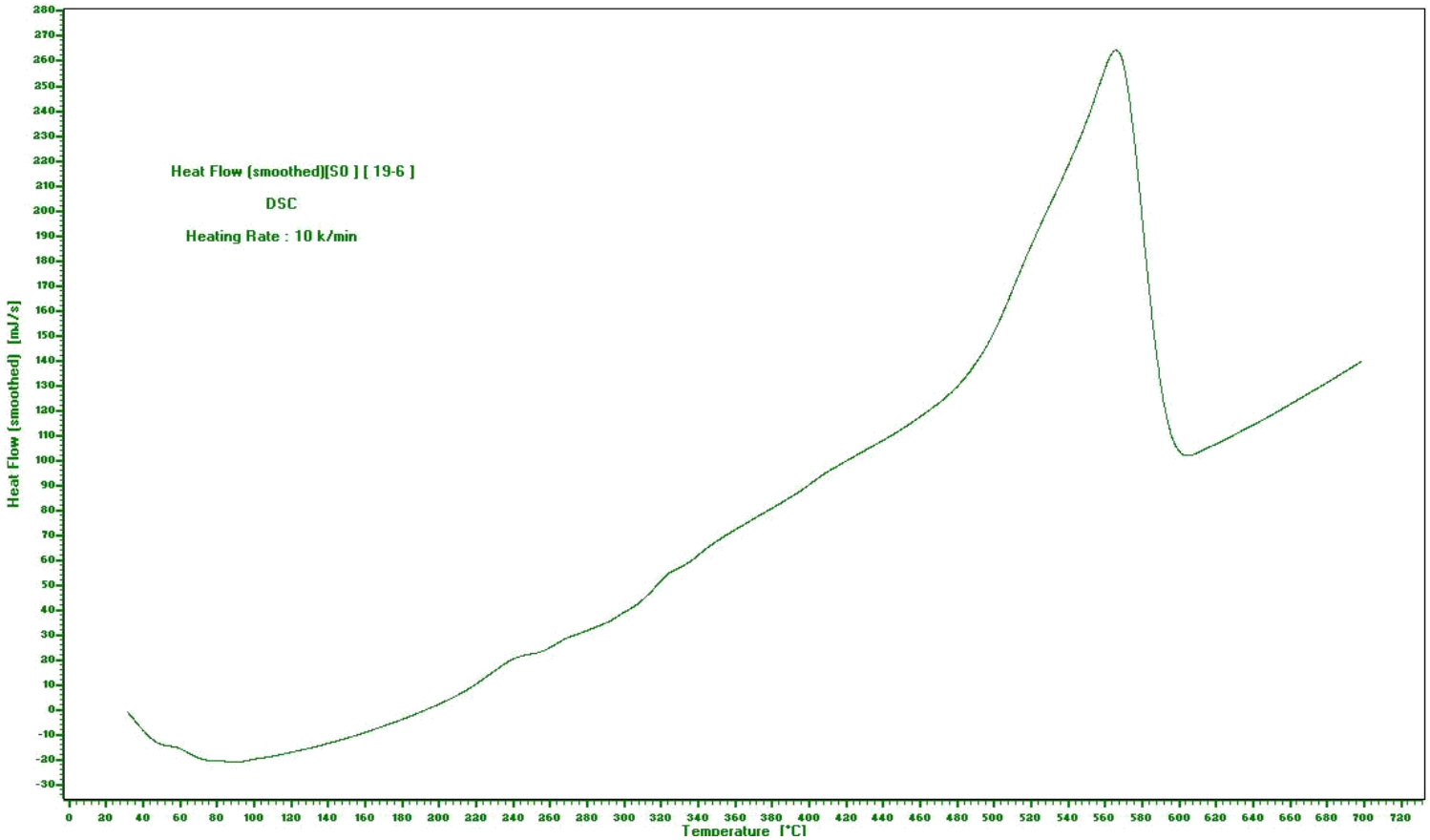


**Figure 32**: DSC of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **27**.

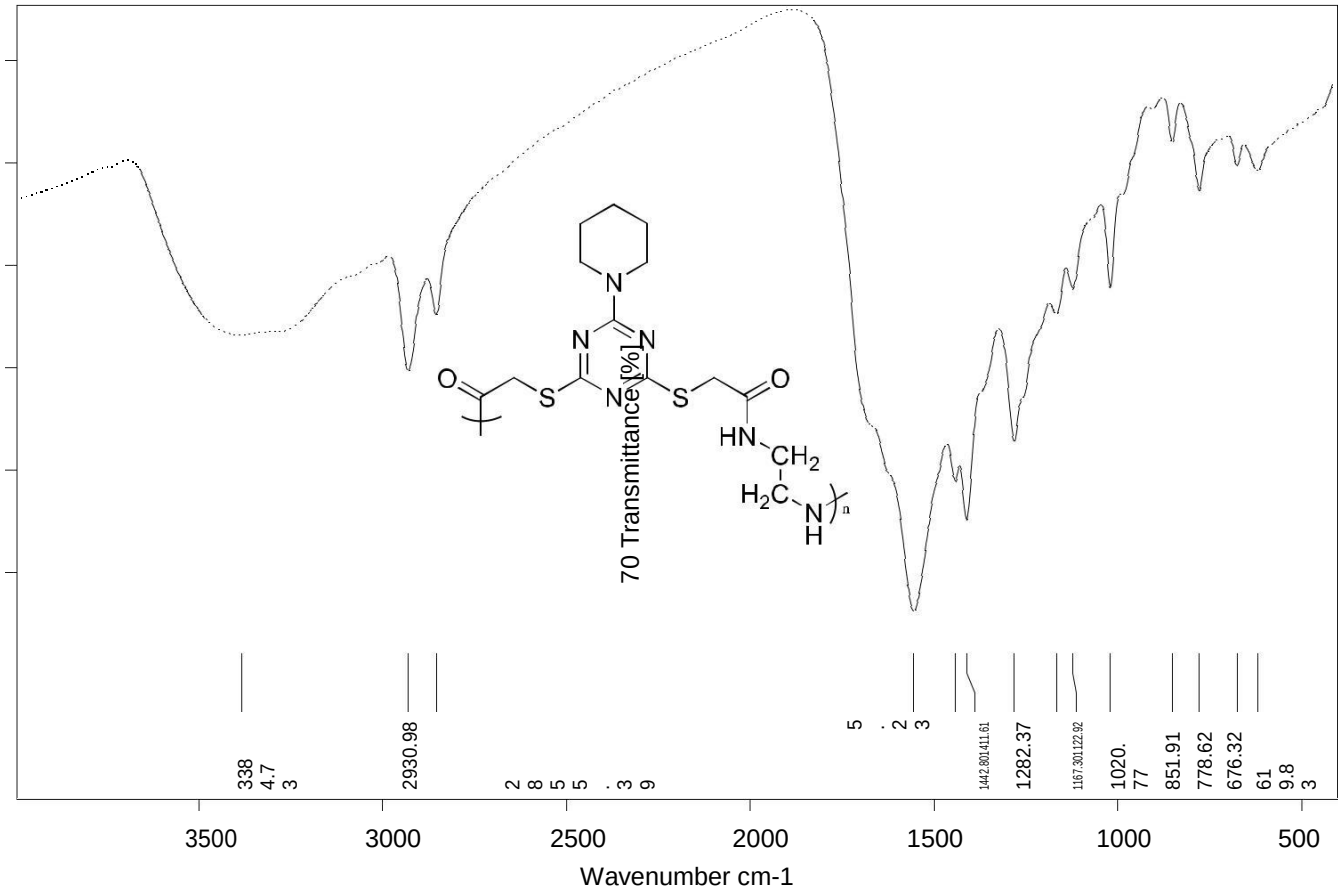


**Figure 33**: IR (KBr) of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **28**.

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**Page 1/1**

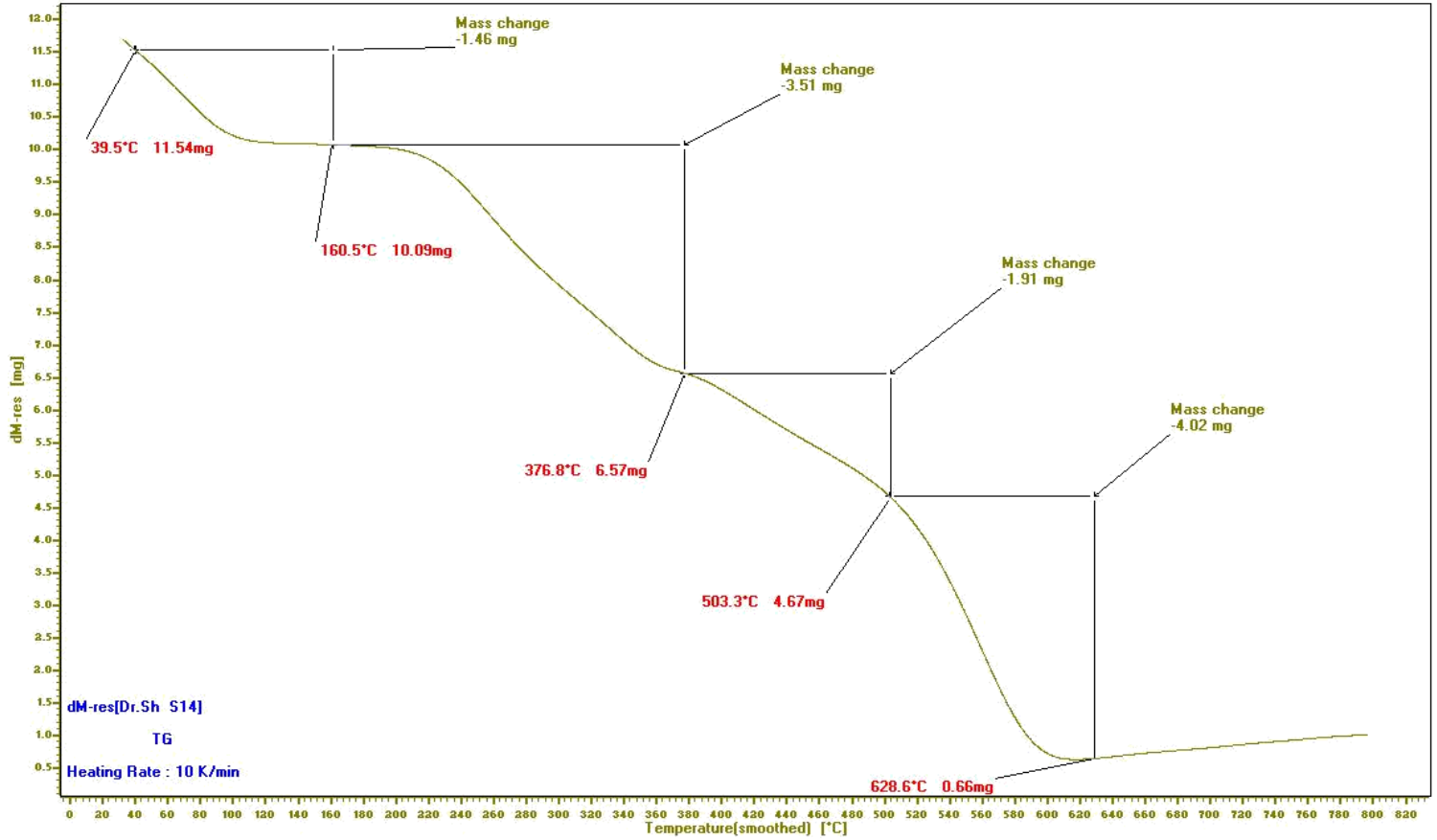


**Figure 34**: TGA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **28**.

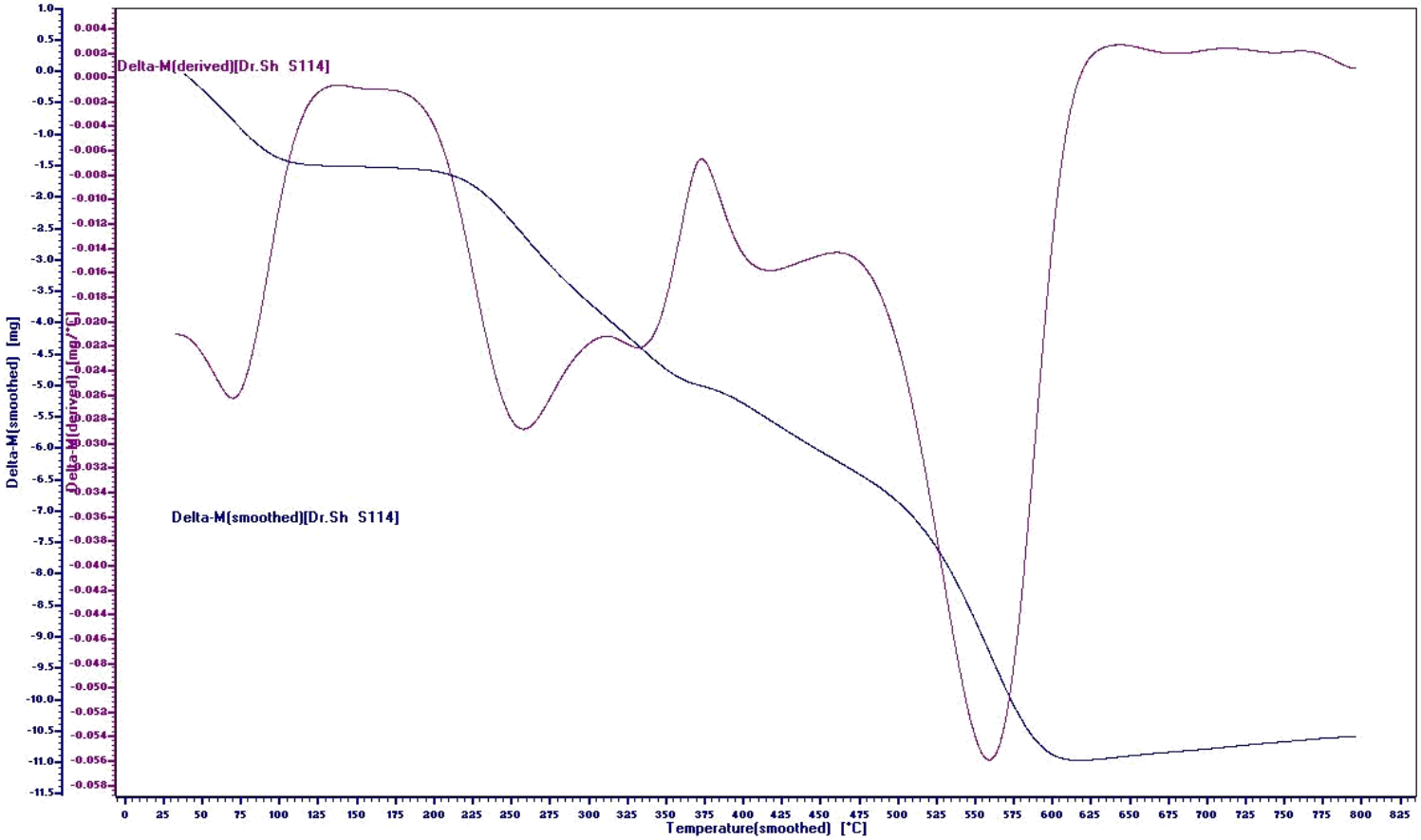


**Figure 35**: TGA/DTG of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **28**.

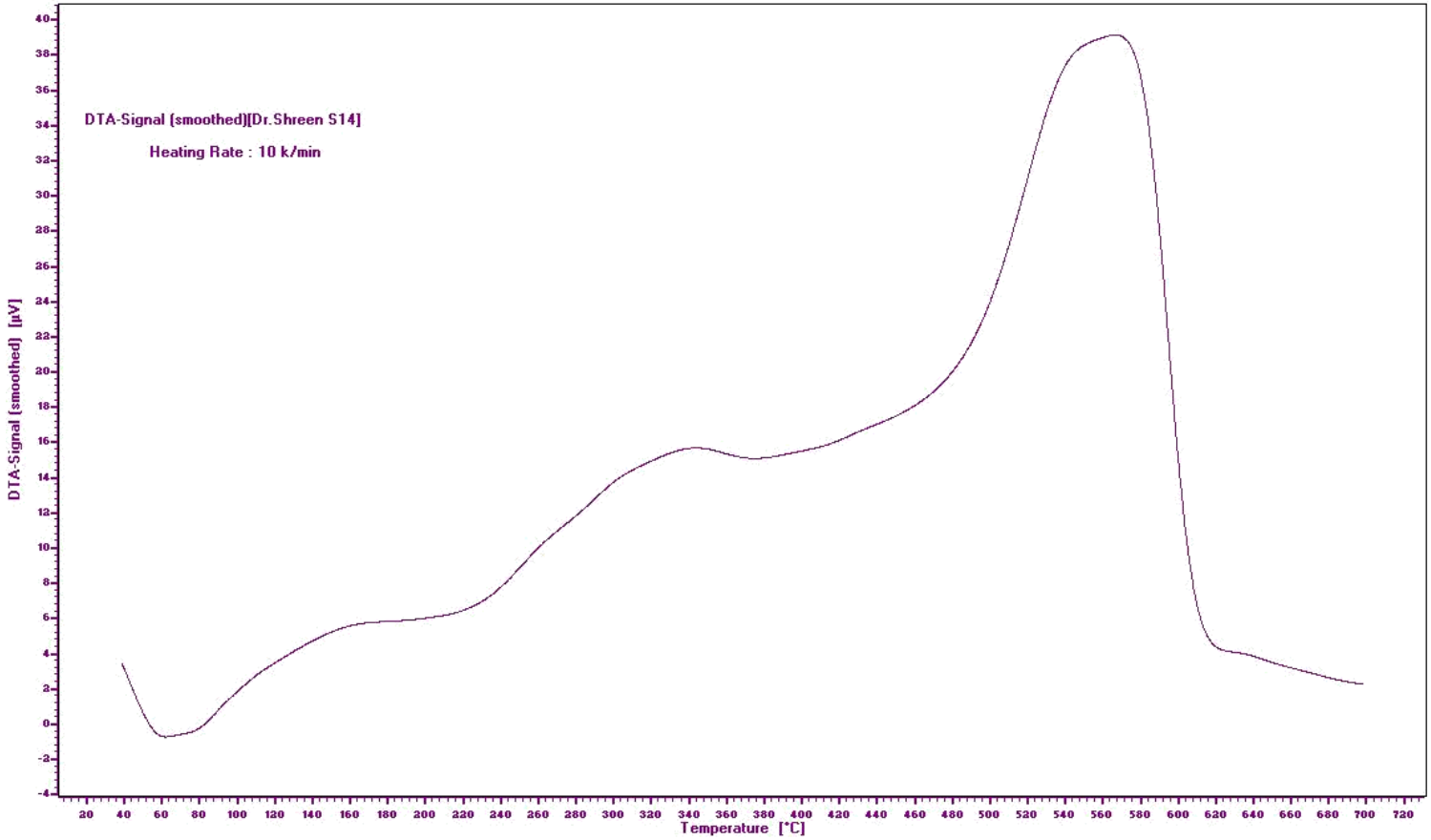


**Figure 36**: DTA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **28**.

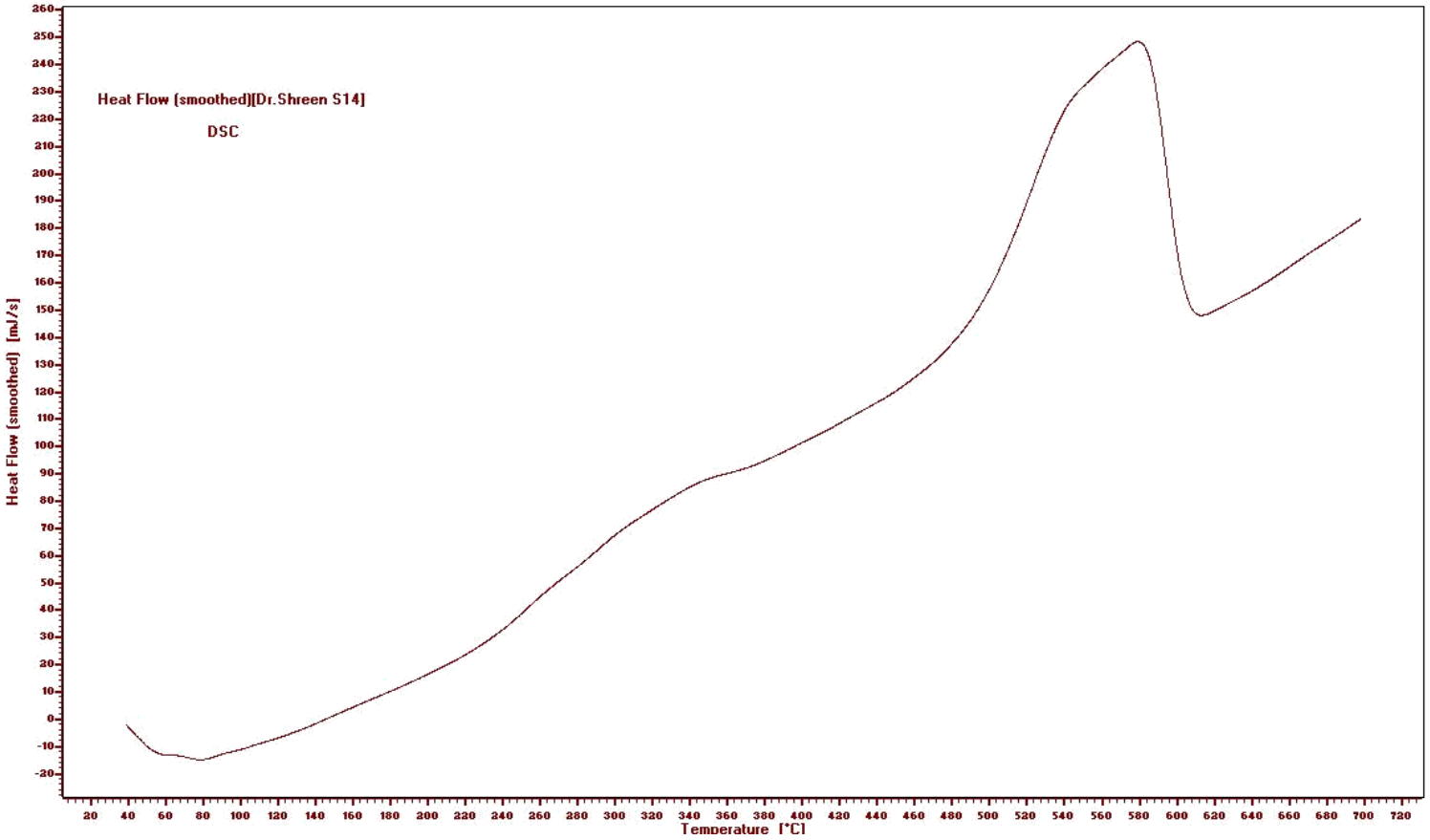


**Figure 37**: DSC of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **28**.

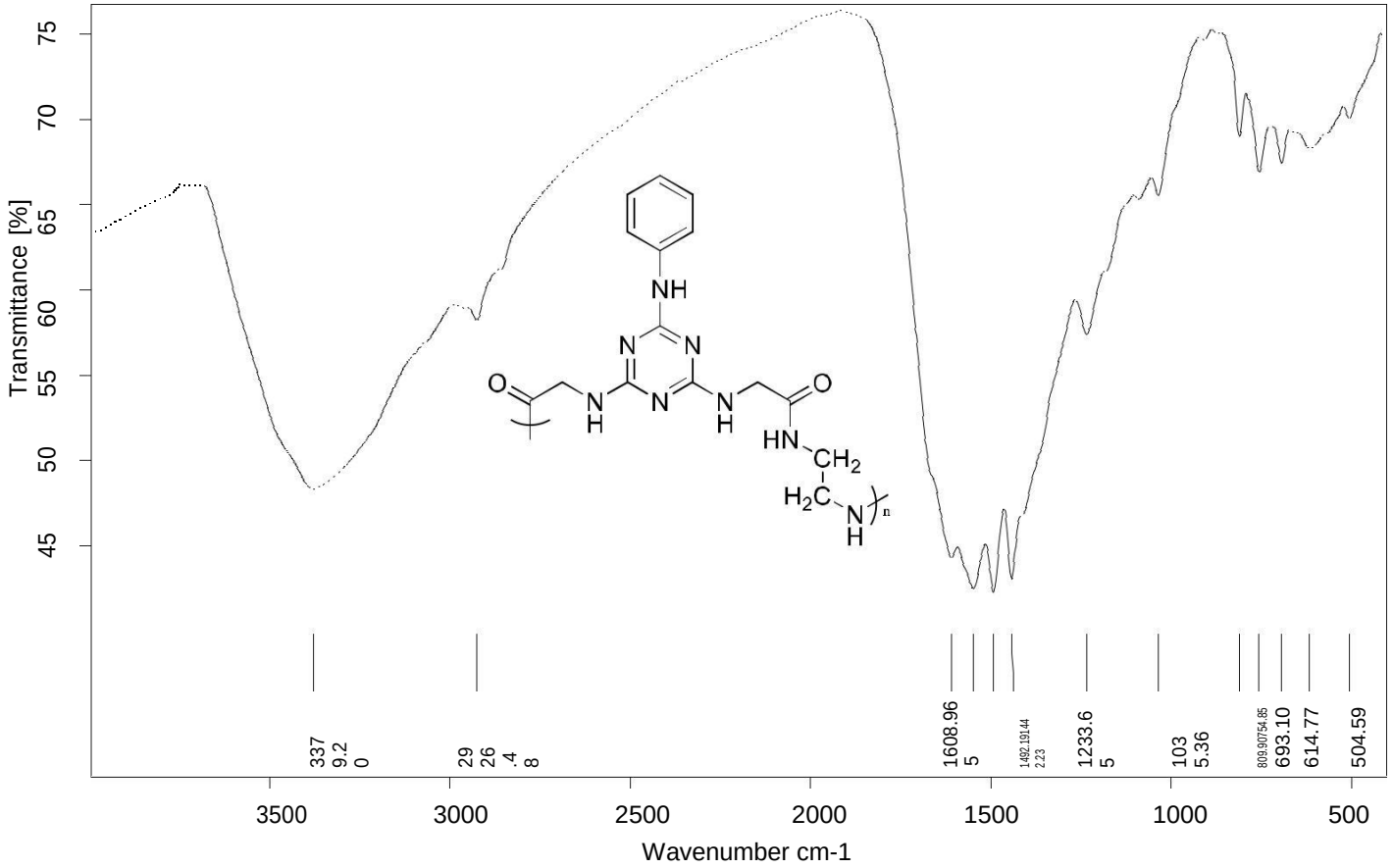


**Figure 38**: IR (KBr) of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **29**.

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**Page 1/1**

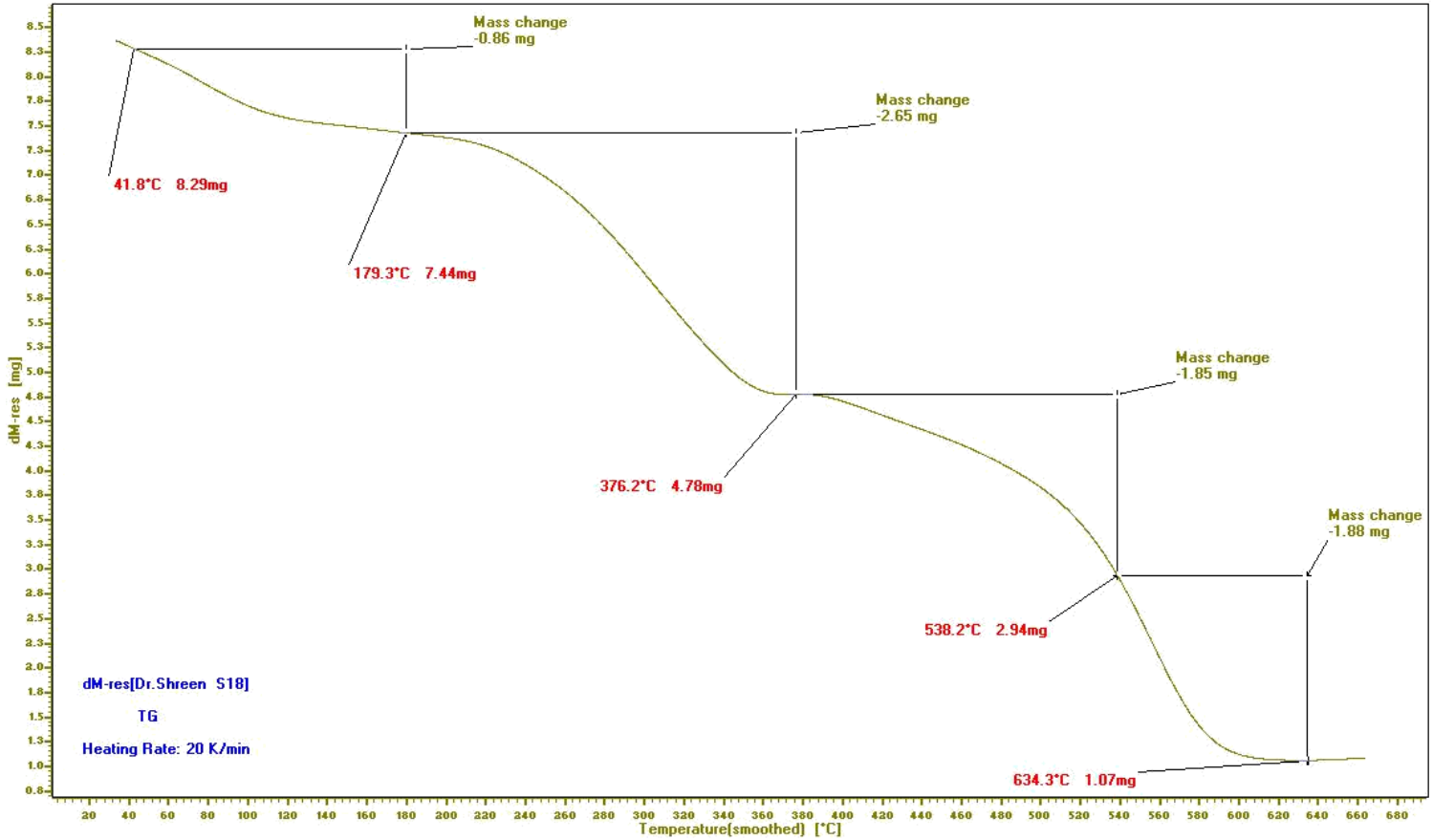


**Figure 39**: TGA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **29**.

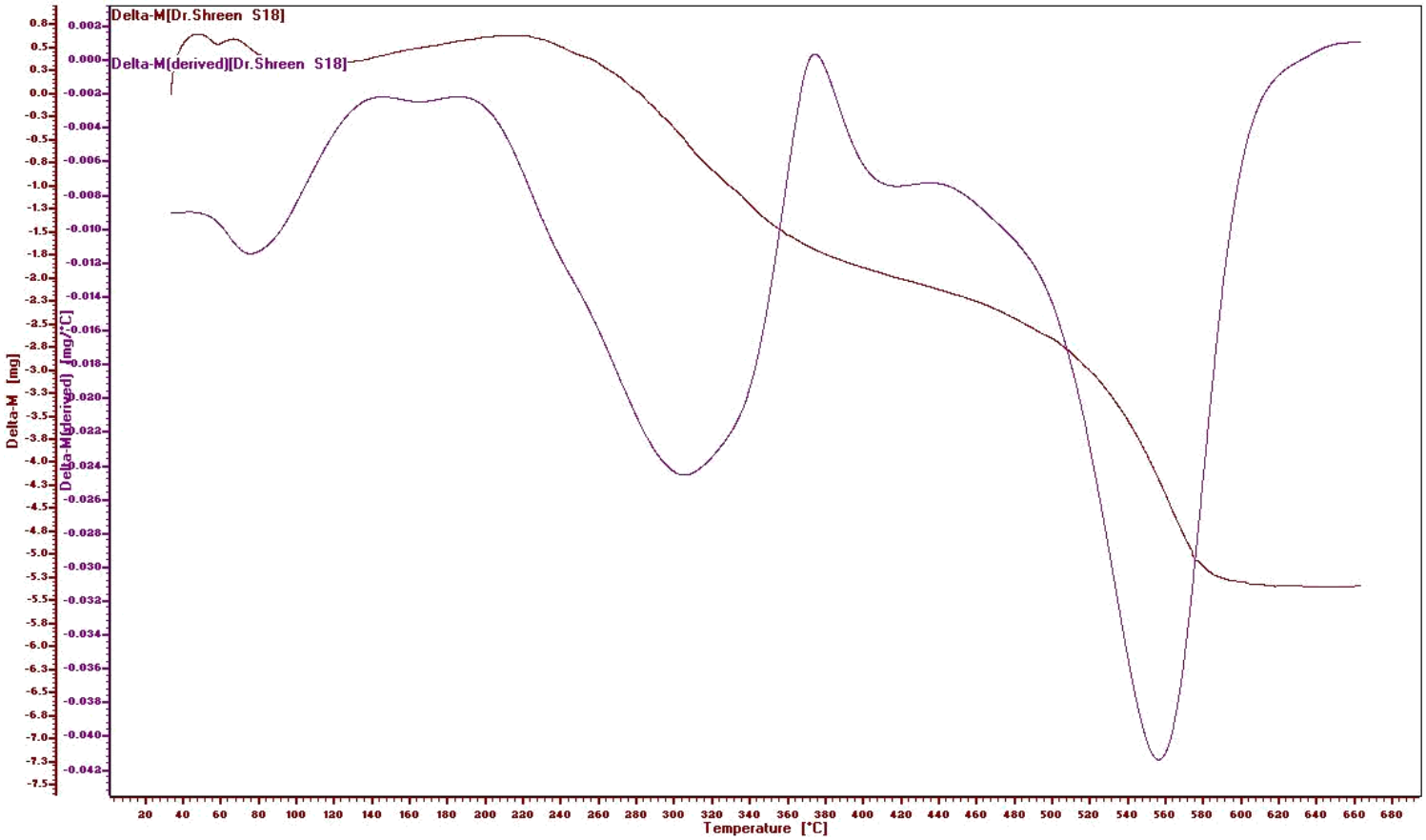


**Figure 40**: TGA/DTG of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **29**.

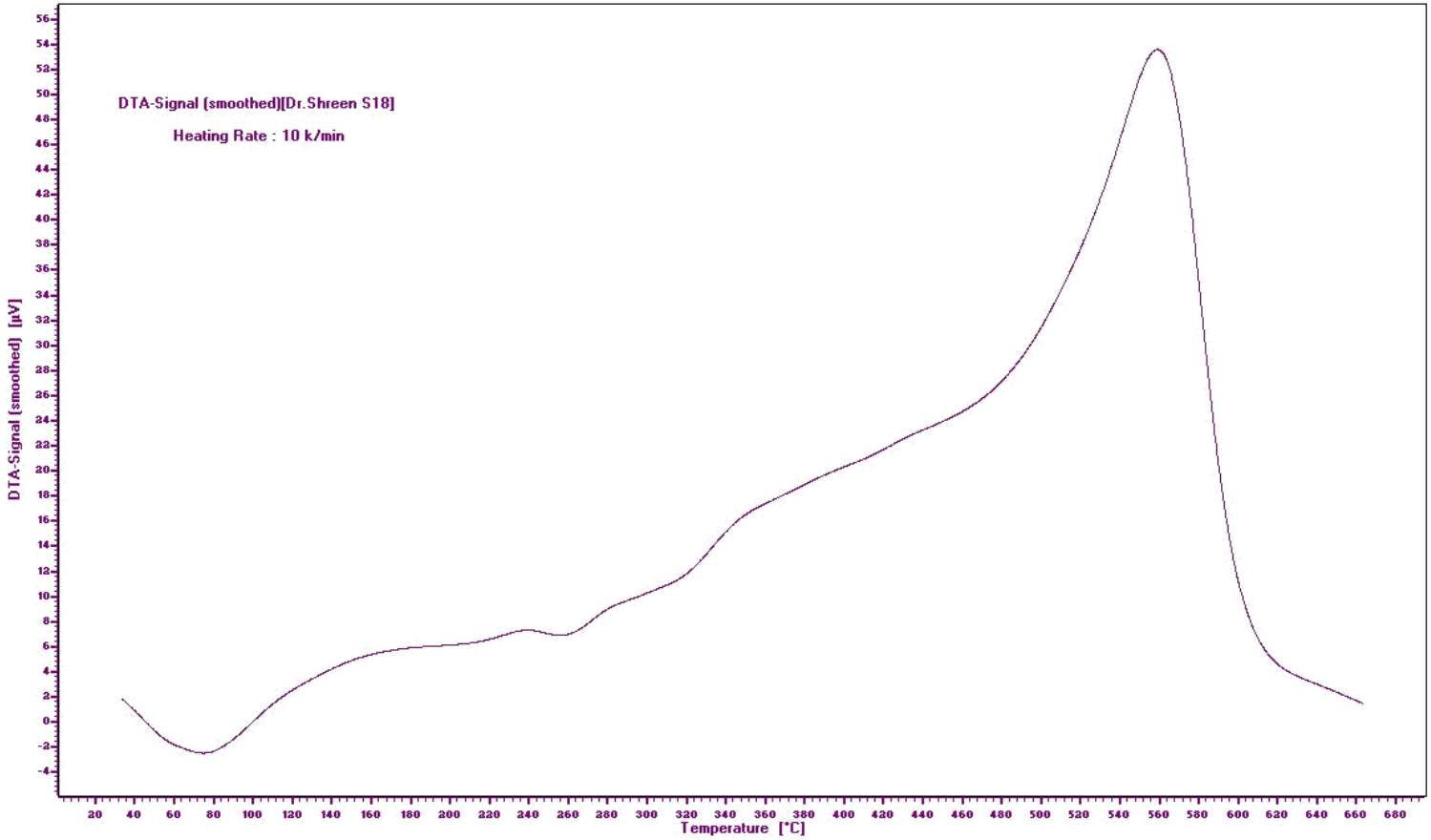


**Figure 41**: DTA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **29**.

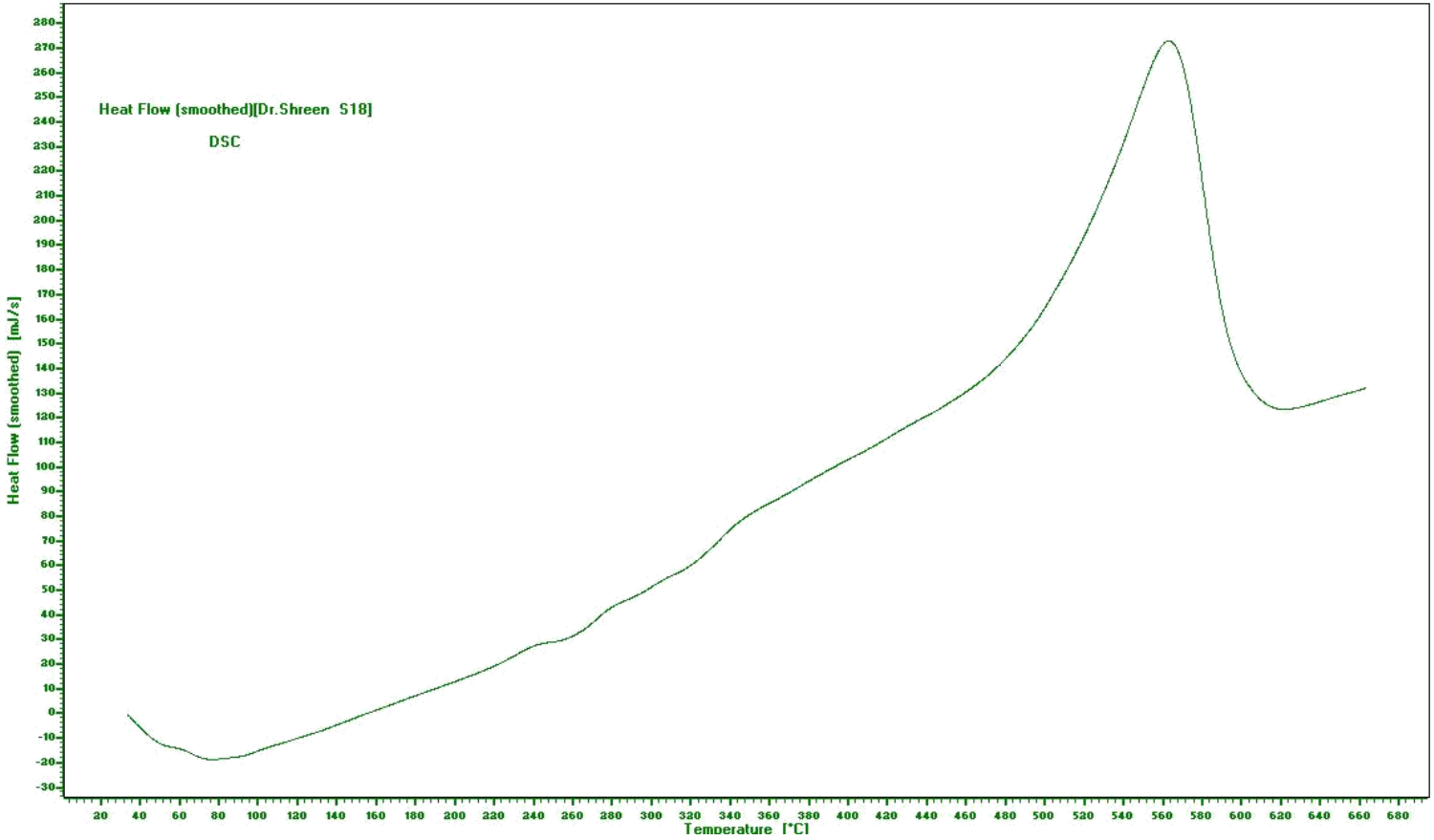


**Figure 42**: DSC of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **29**.

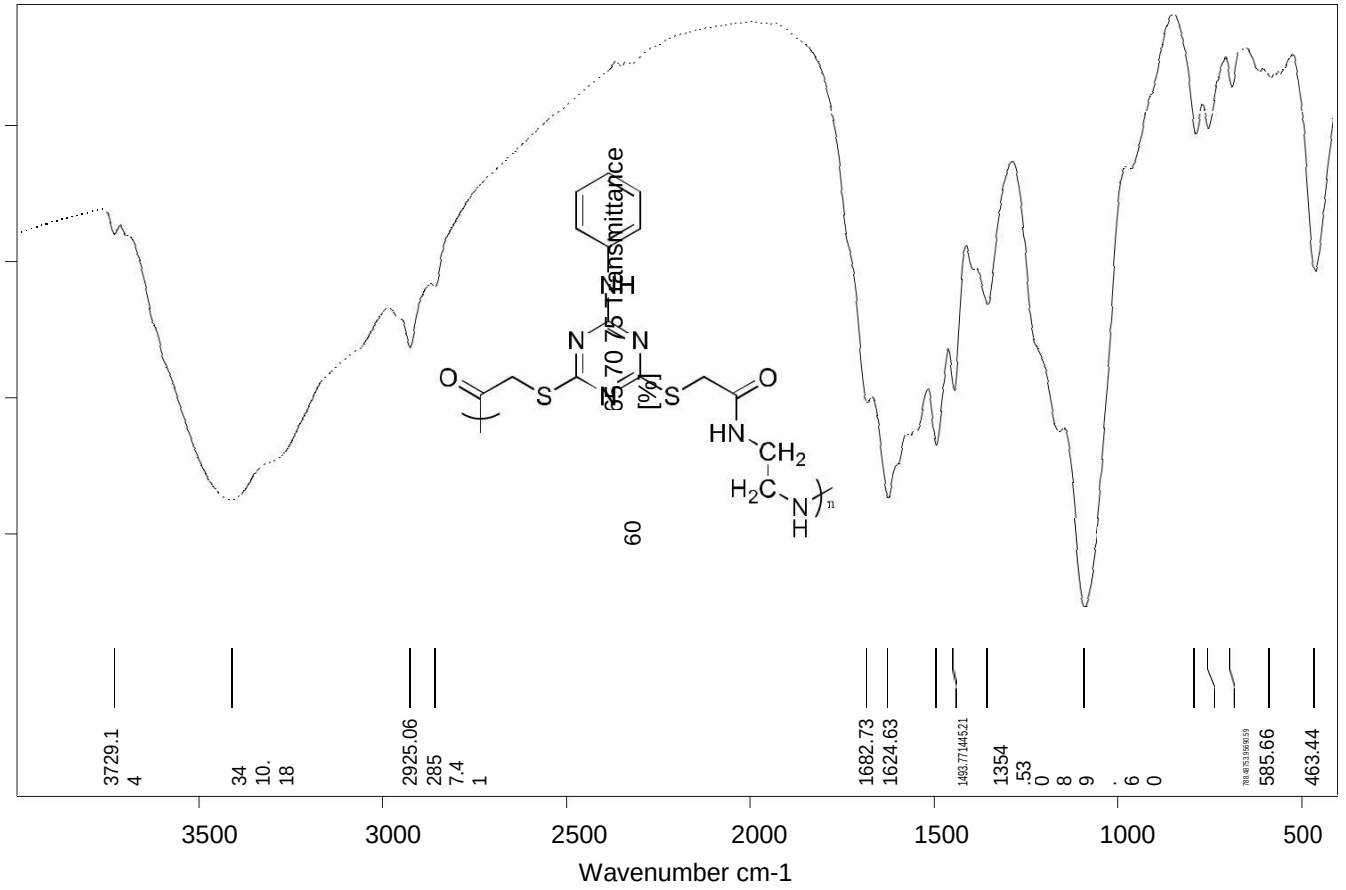


**Figure 43**: IR (KBr) of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **30**.

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**Page 1/1**

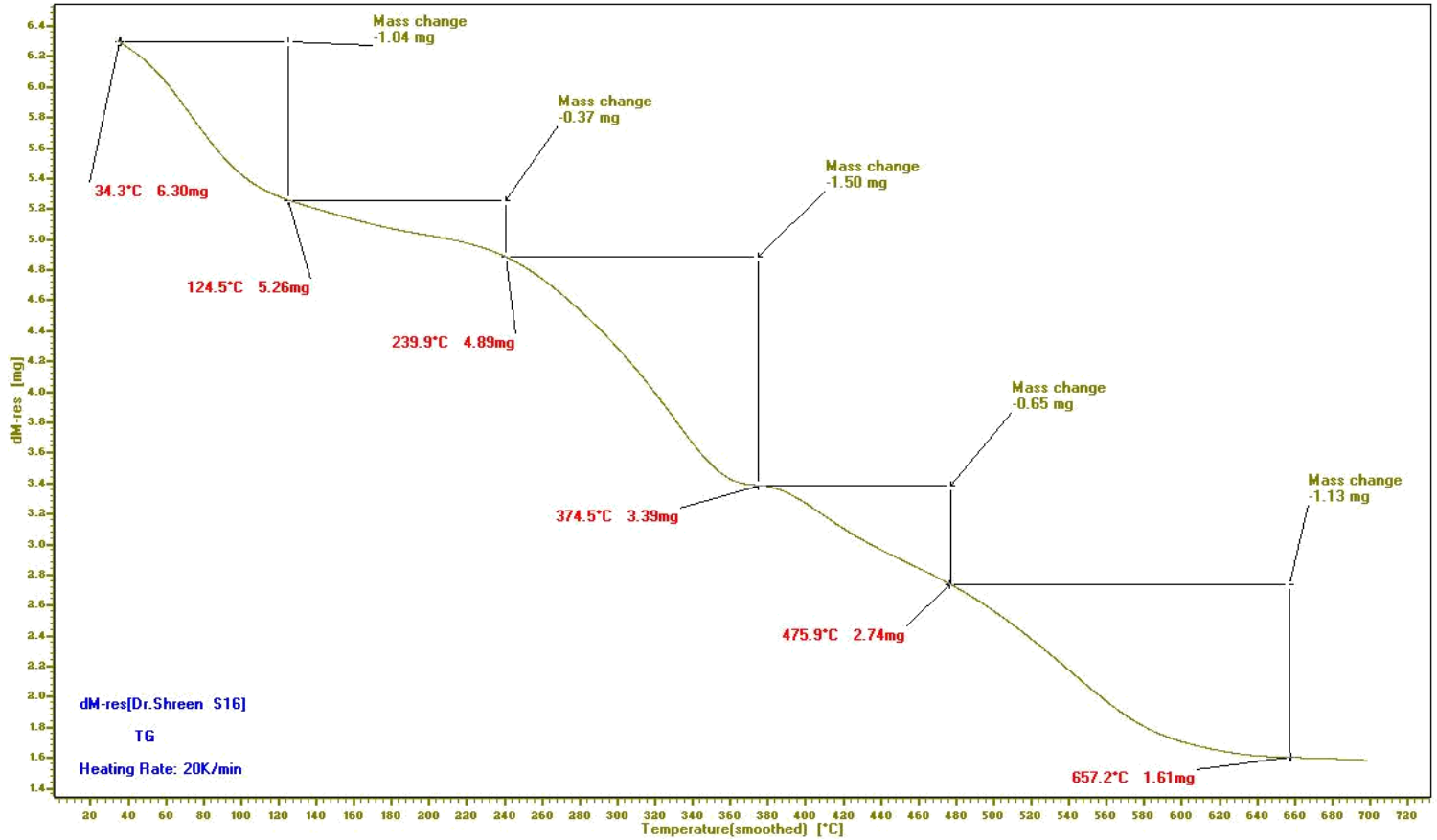


**Figure 44**: TGA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **30**.

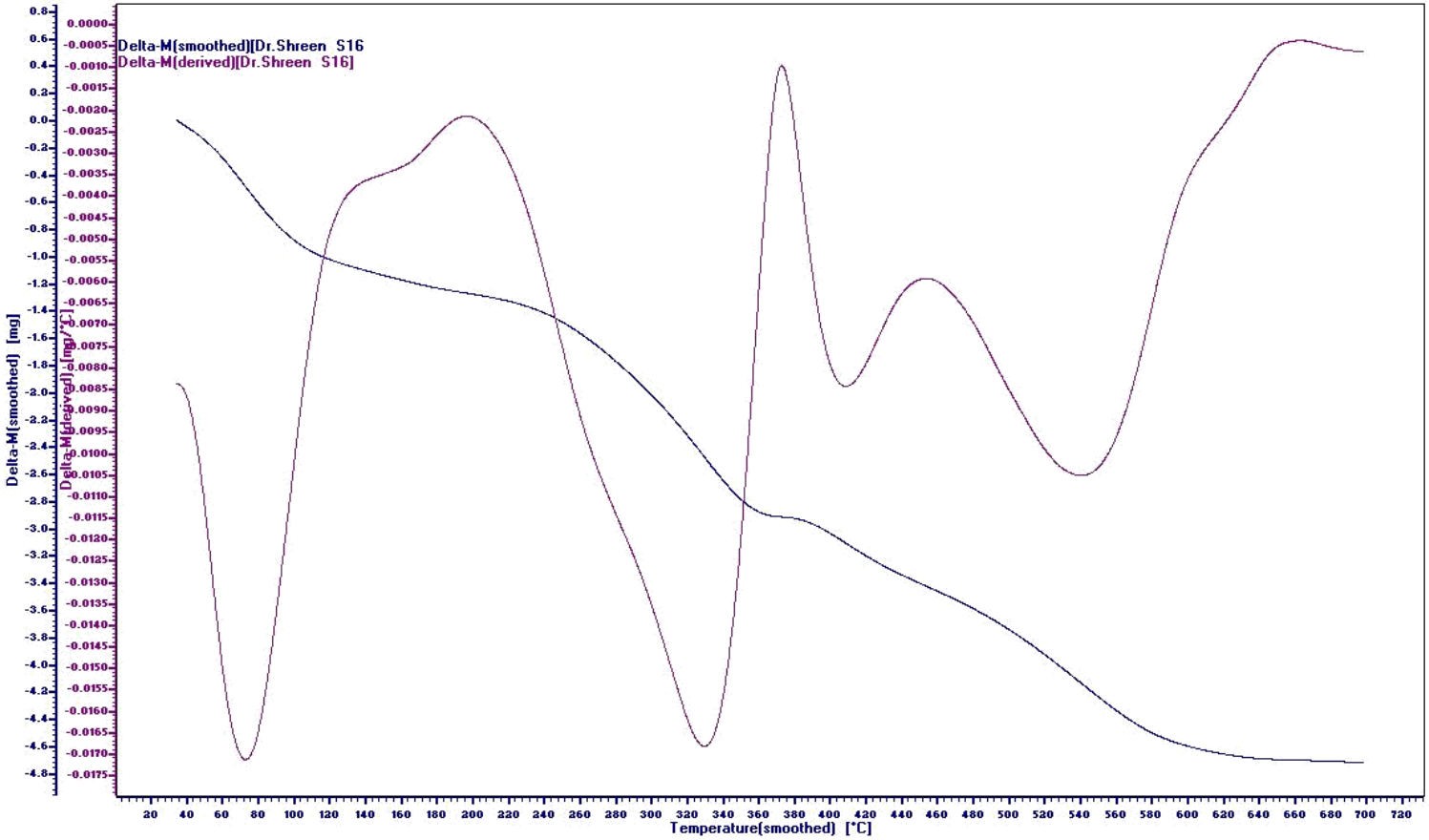


**Figure 45**: TGA/DTG of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **30**.

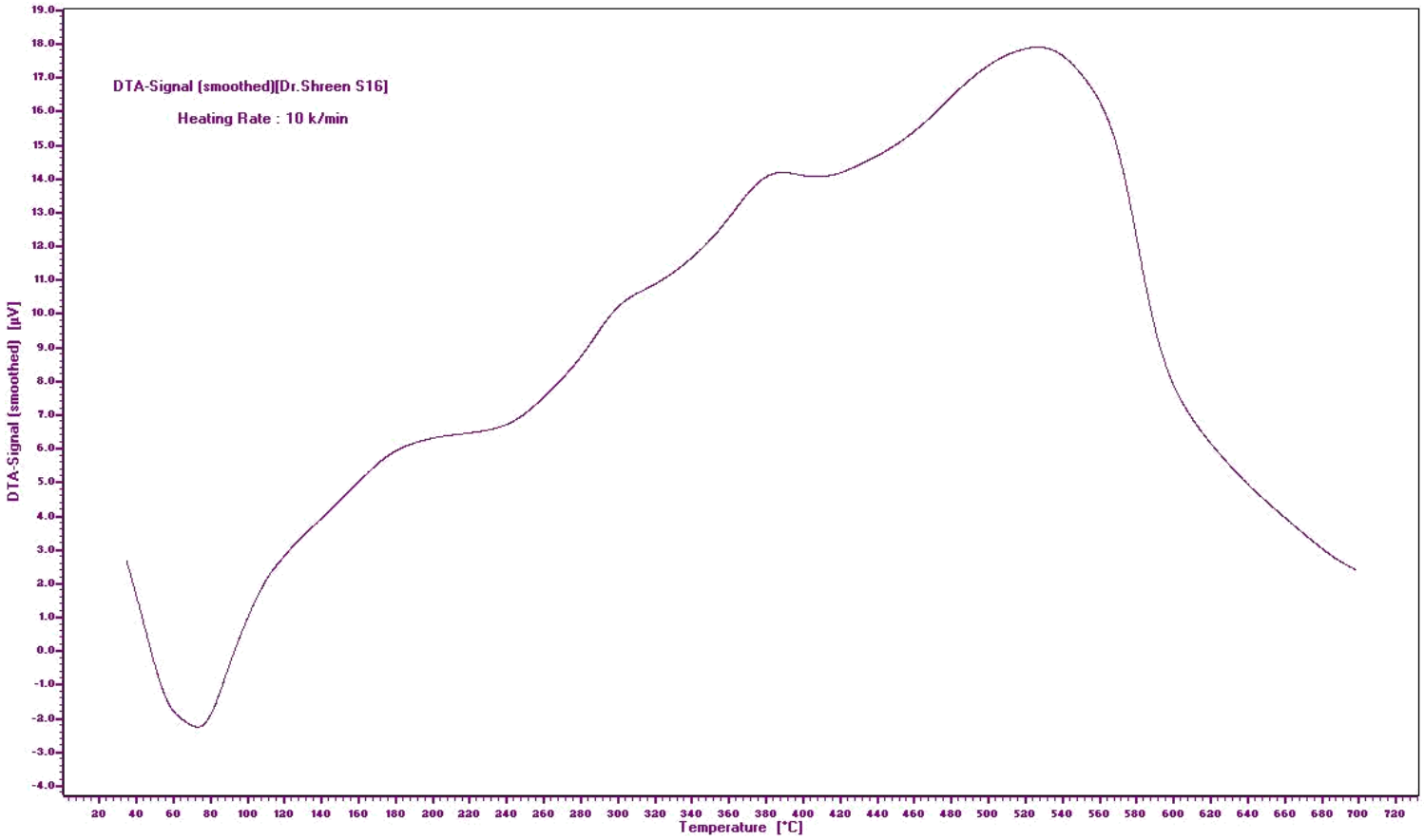


**Figure 46**: DTA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **30**.

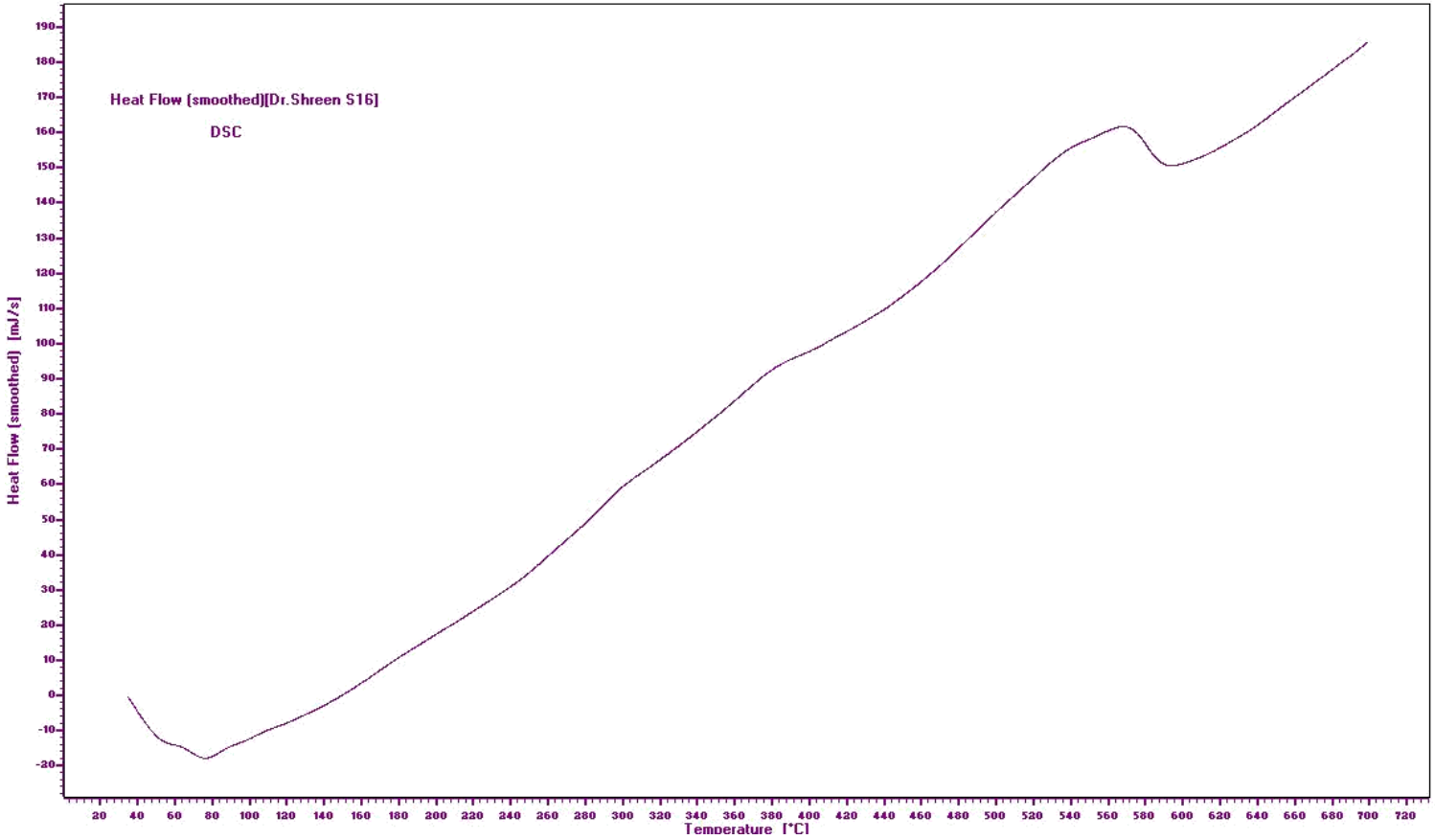


**Figure 47**: DSC of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **30**.

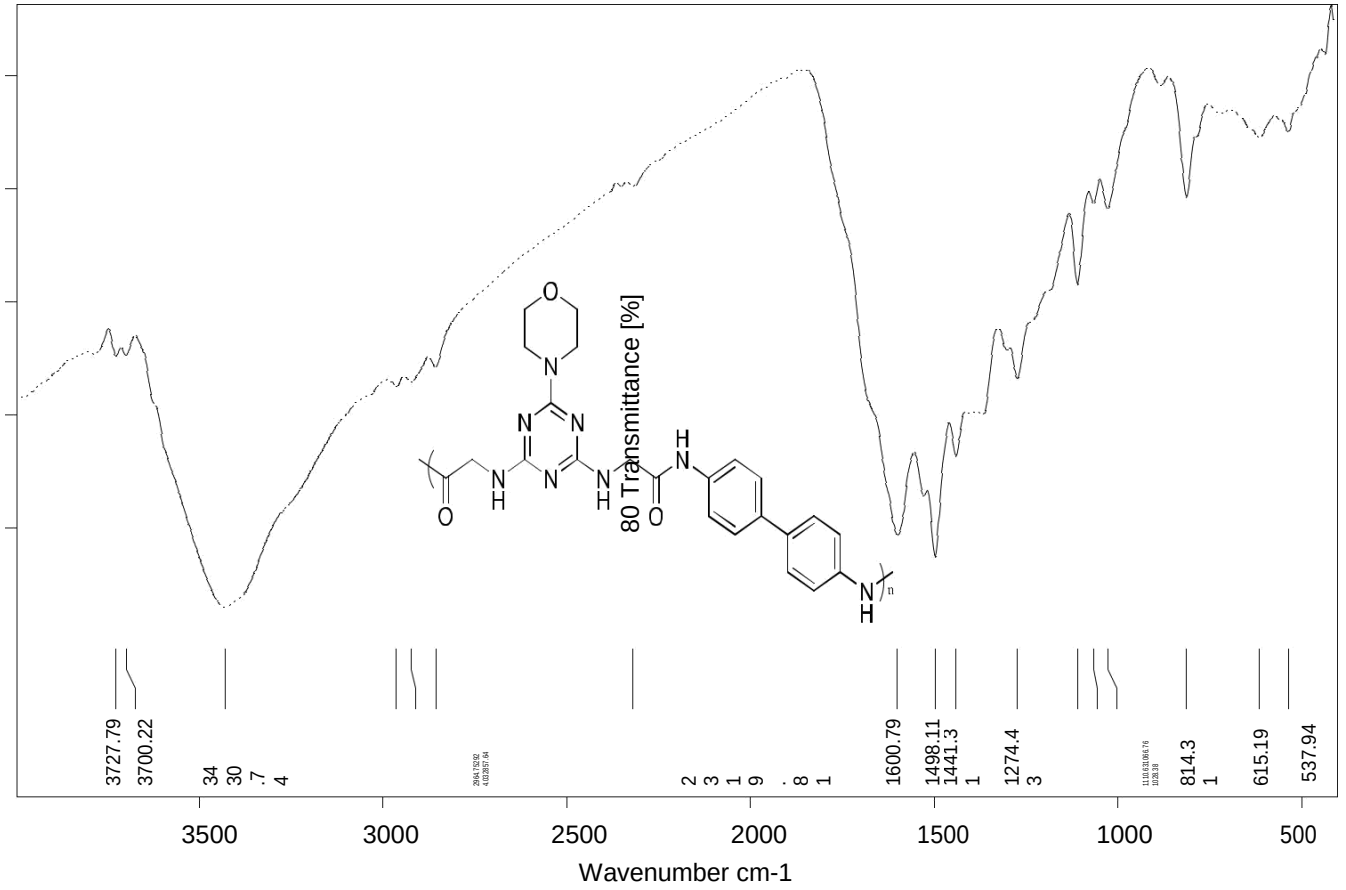


**Figure 48**: IR (KBr) of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **31**.

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**Page 1/1**

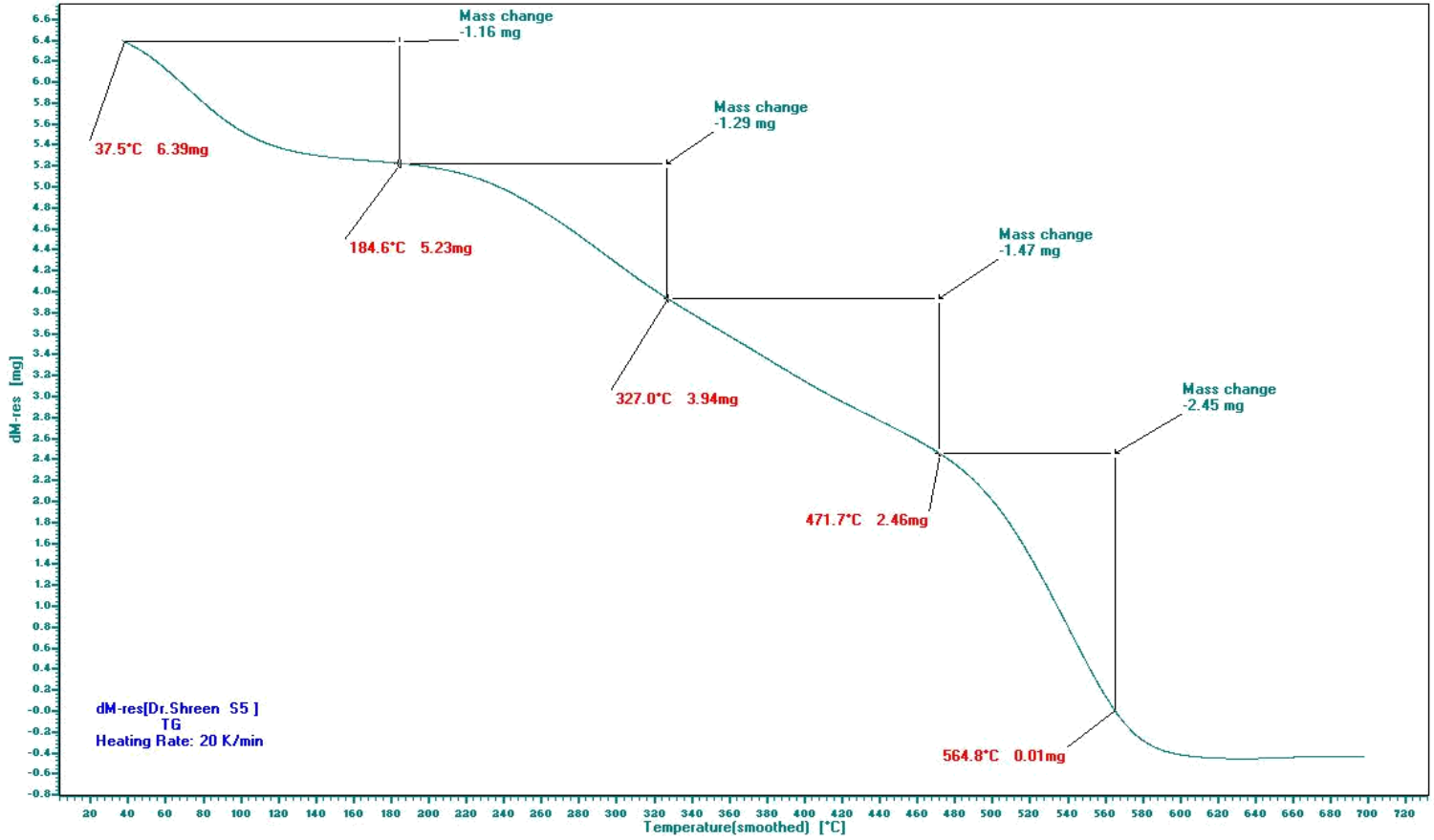


**Figure 49**: TGA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **31**.

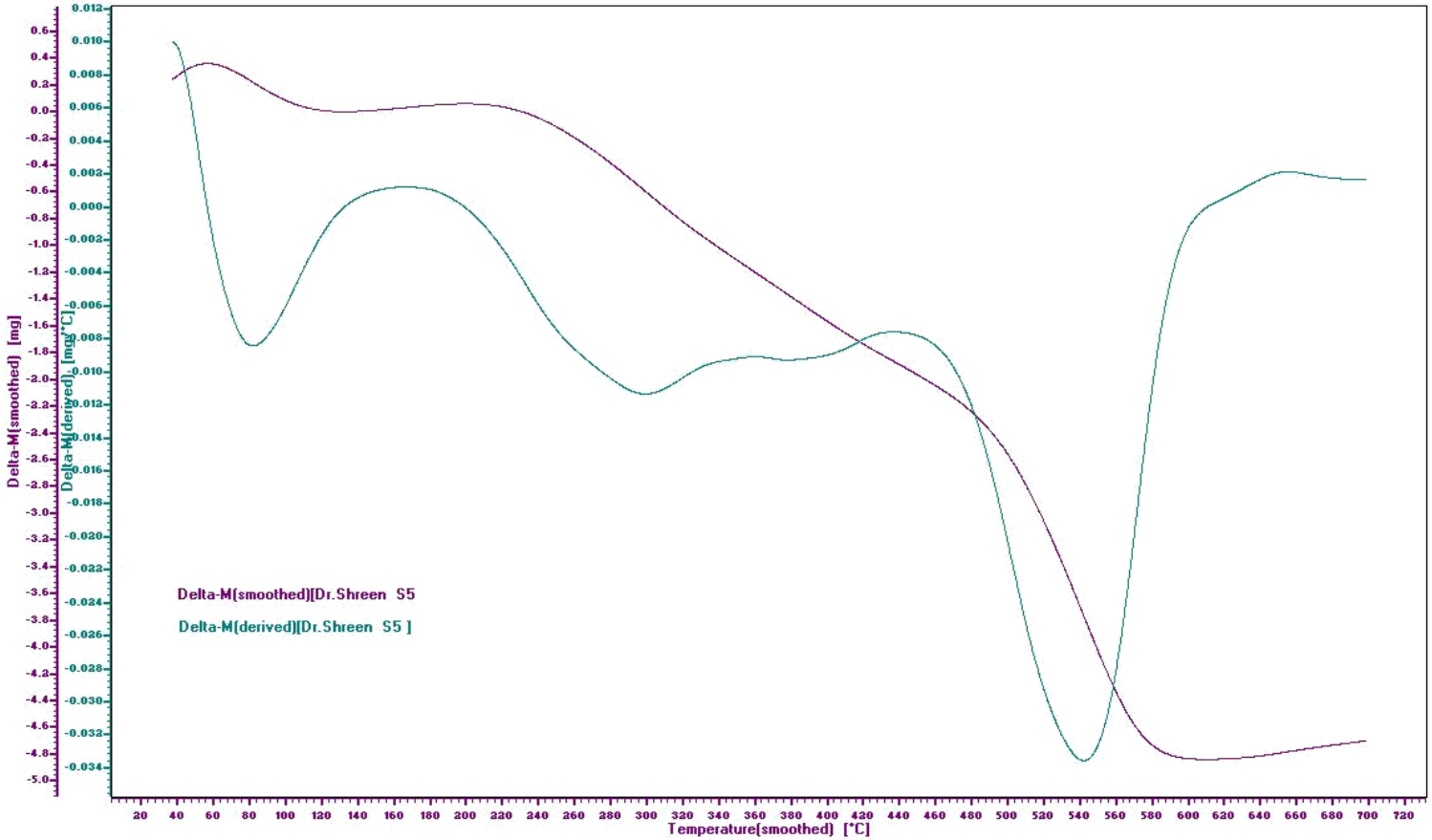


**Figure 50**: TGA/DTG of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **31**.

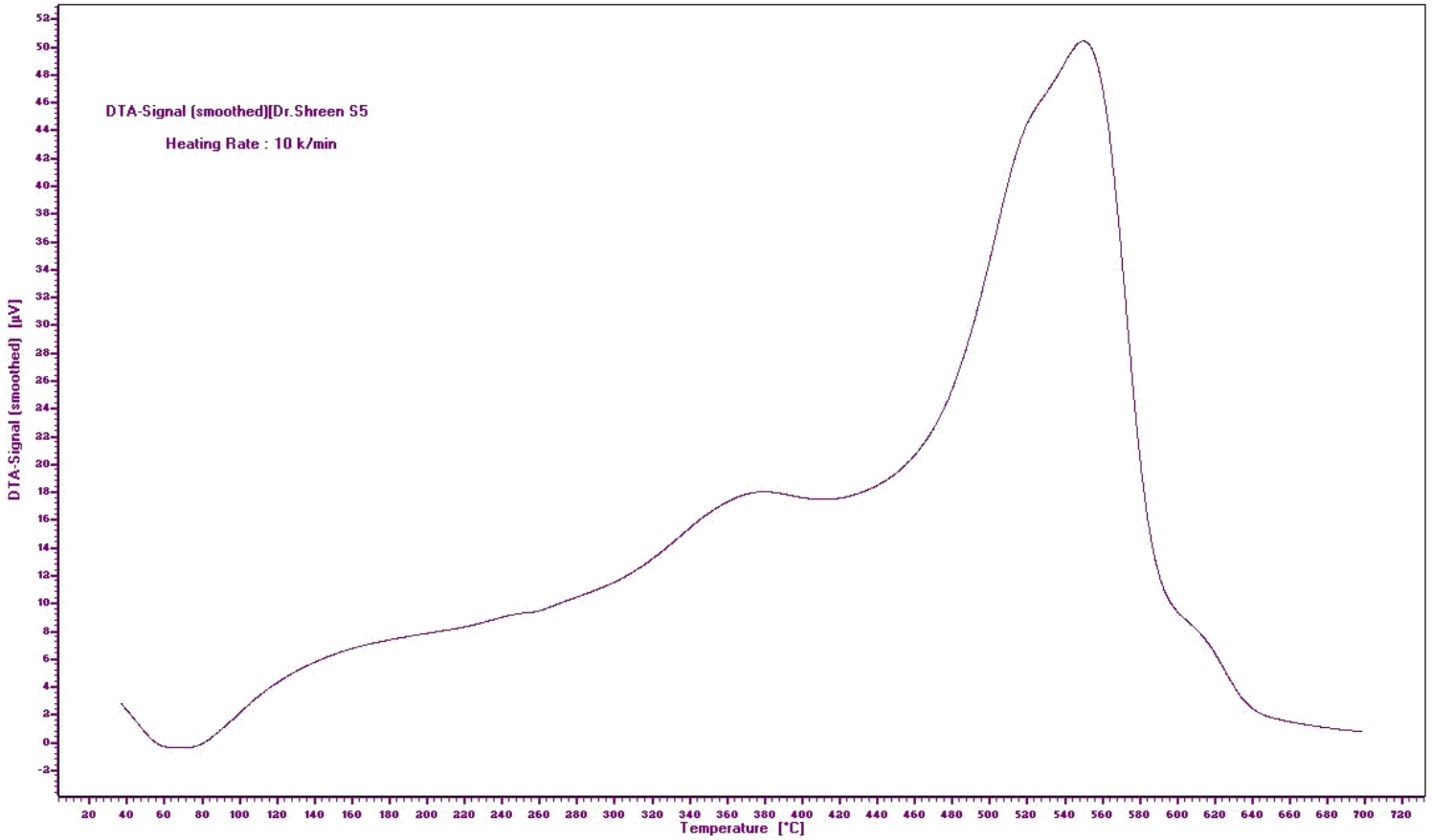


**Figure 51**: DTA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **31**.

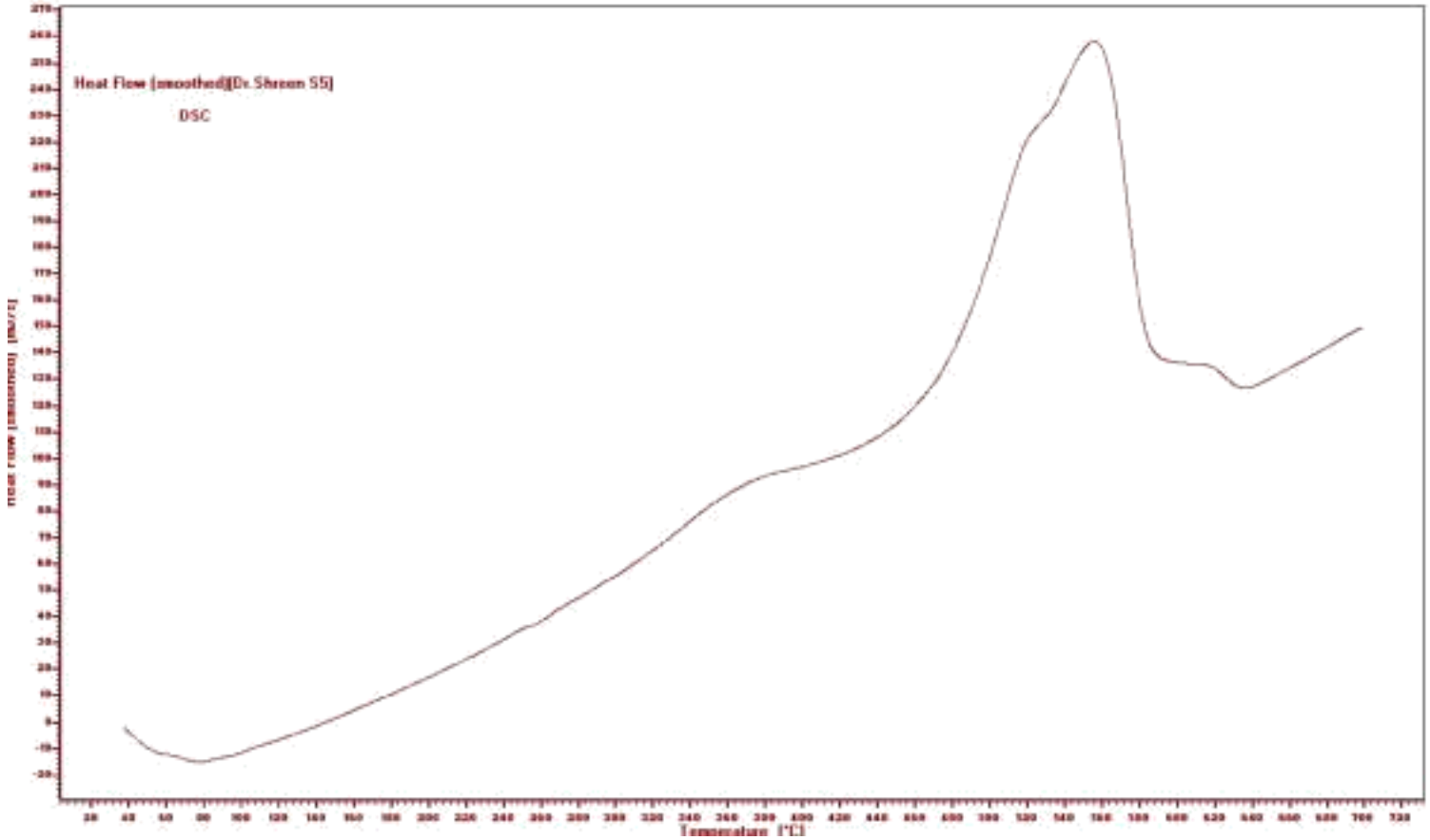


**Figure 52**: DSC of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **31**.

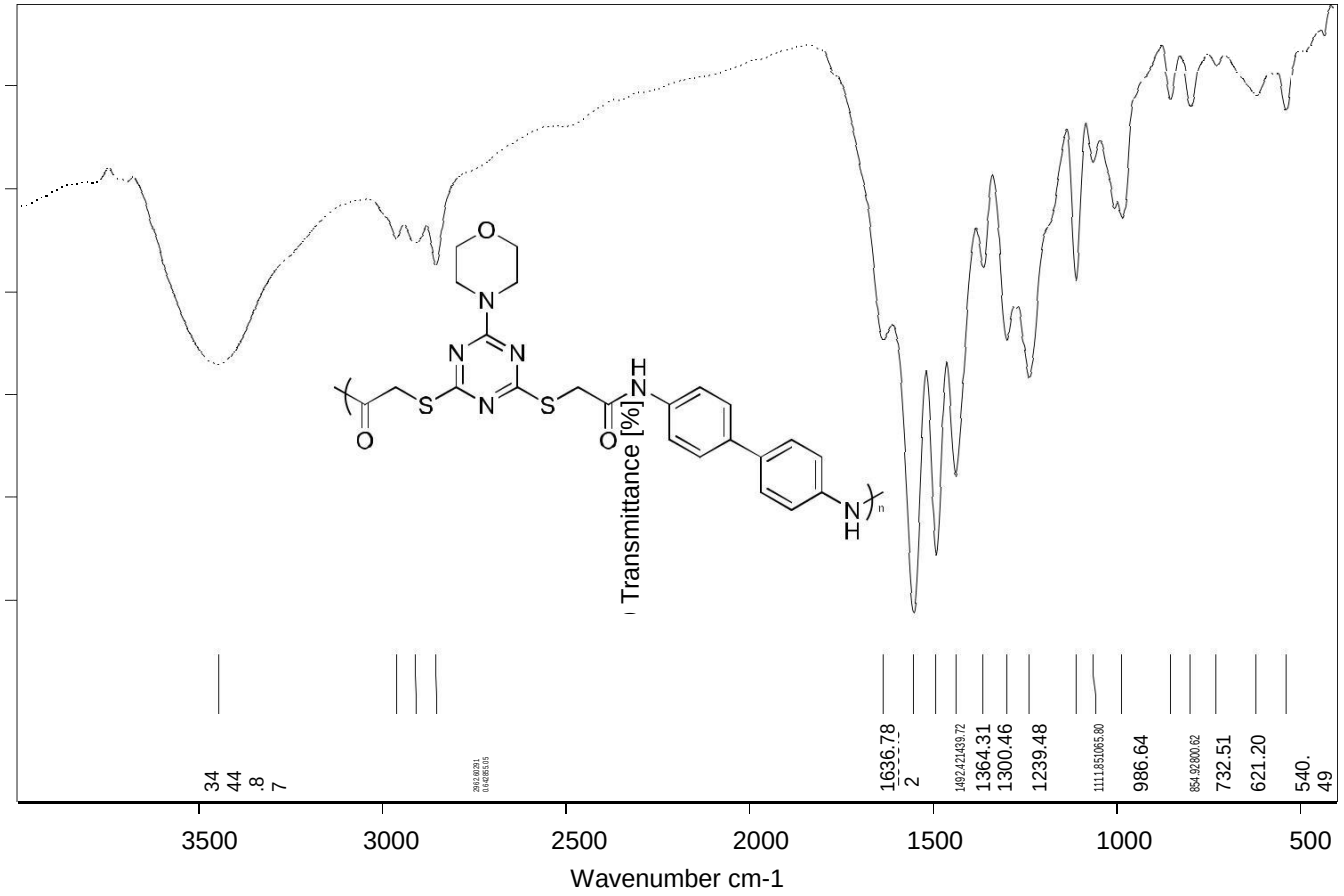


**Figure 53**: IR (KBr) of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **32**.

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**Page 1/1**

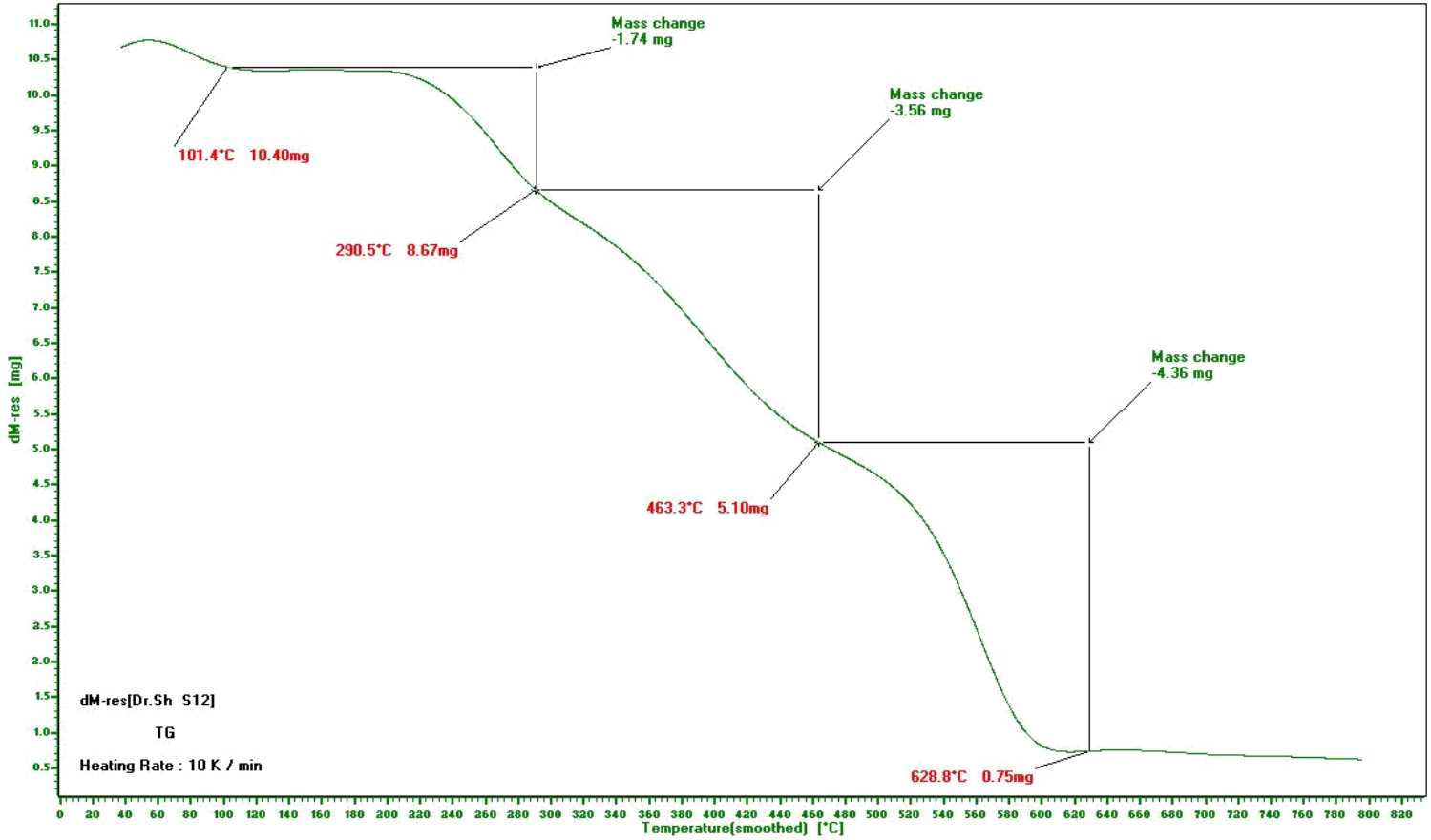


**Figure 54**: TGA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **32**.

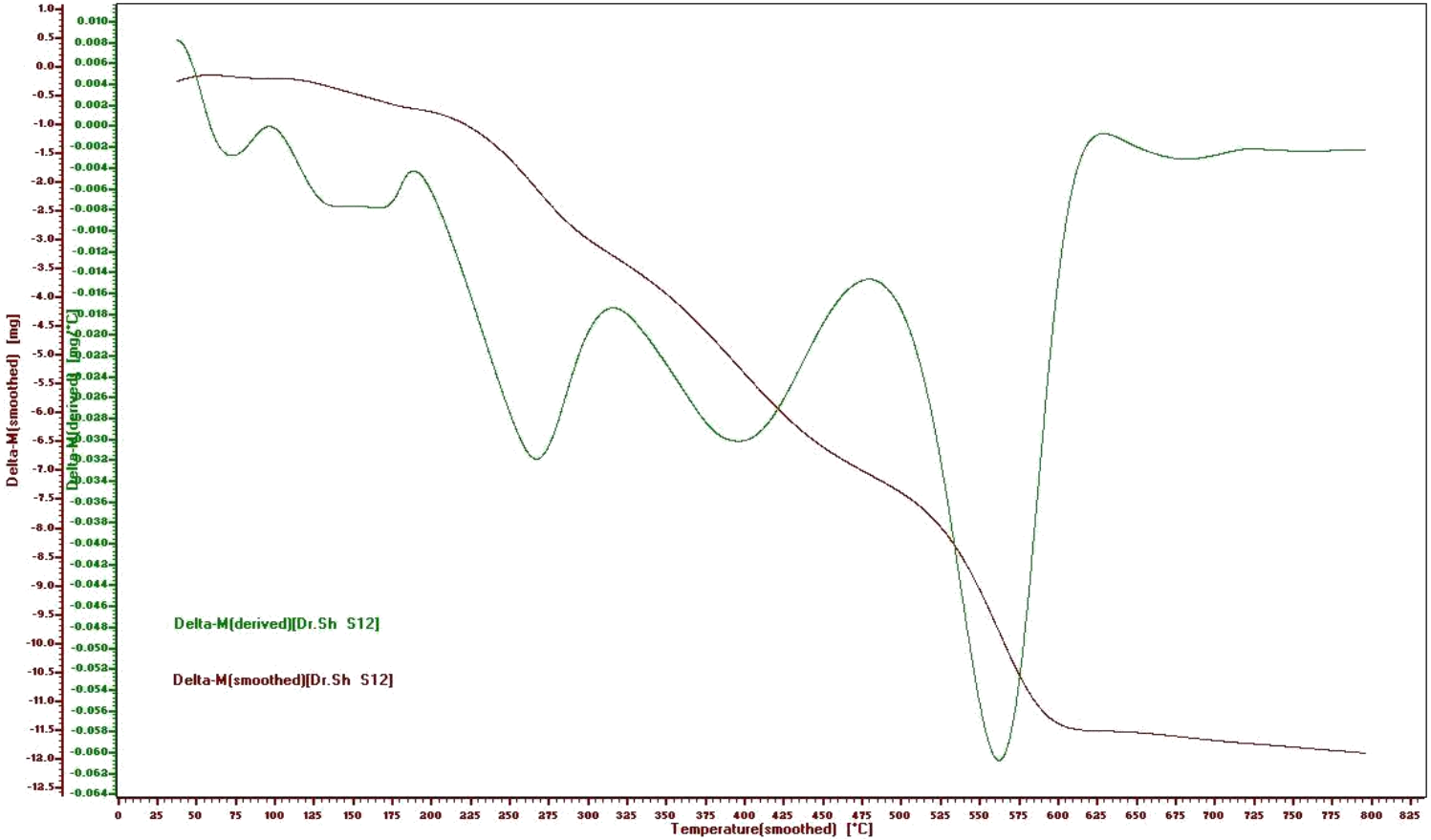


**Figure 55**: TGA/DTG of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **32**.

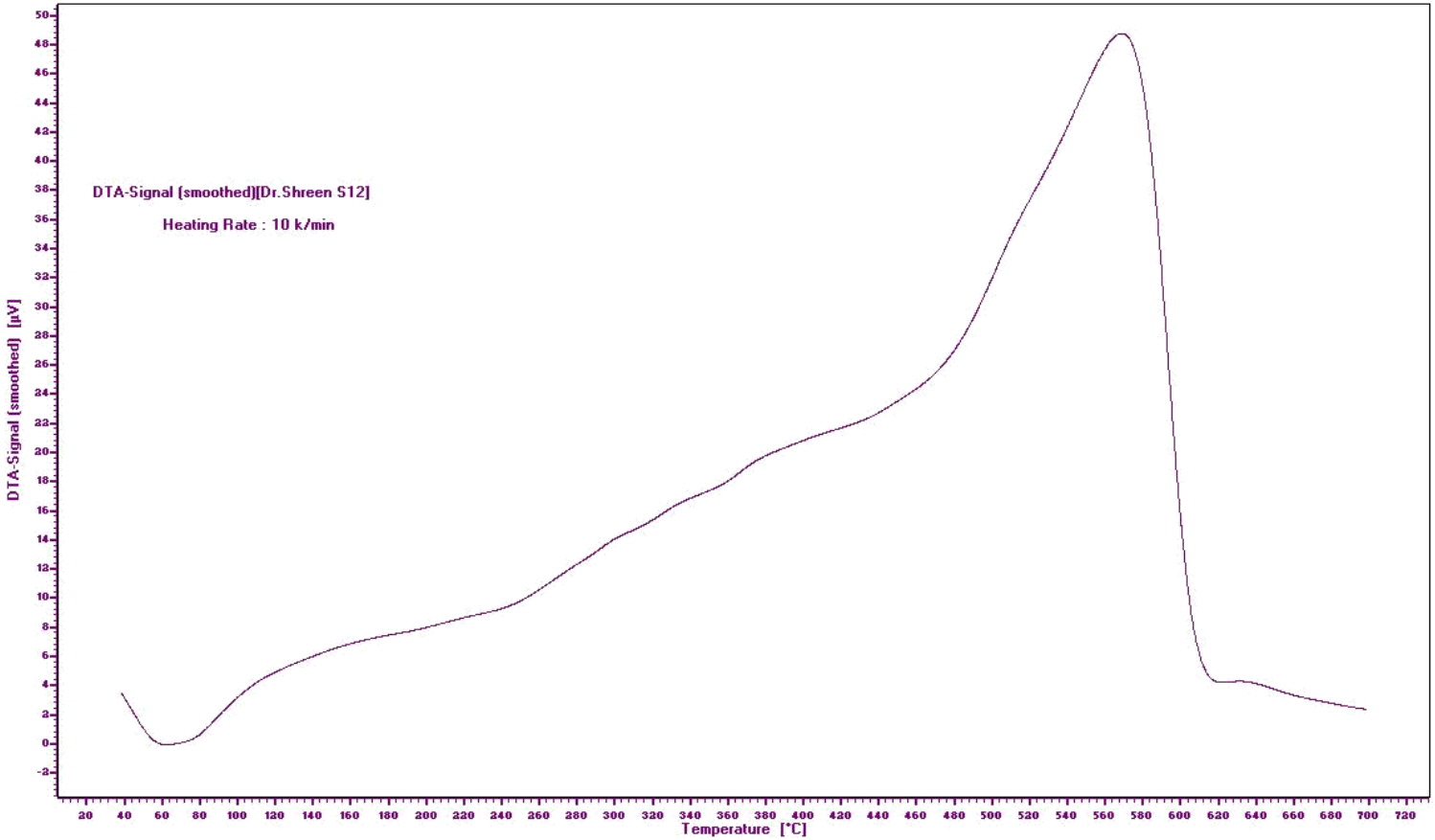


**Figure 56**: DTA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **32**.

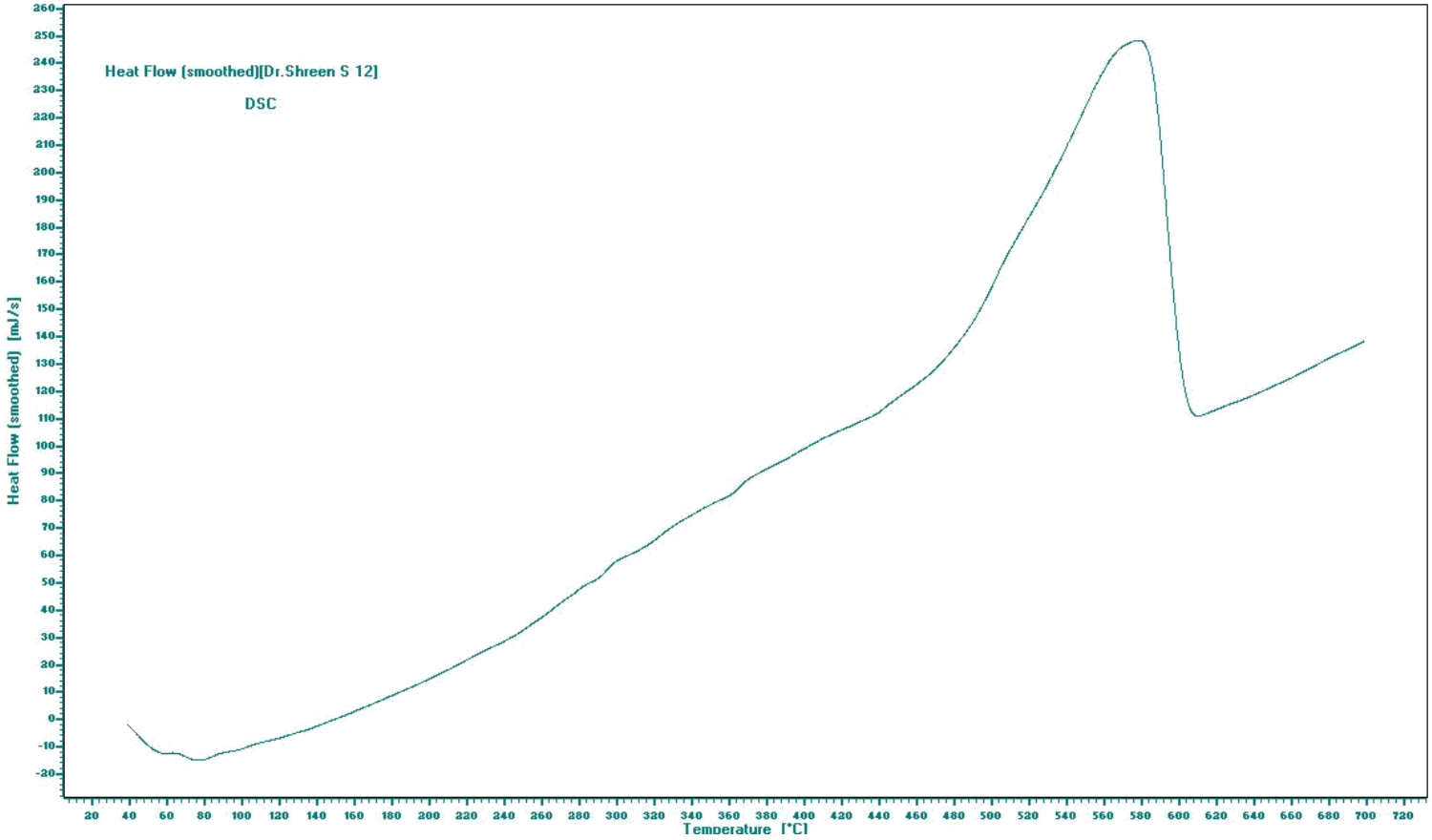


**Figure 57:** DSC of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **32**.

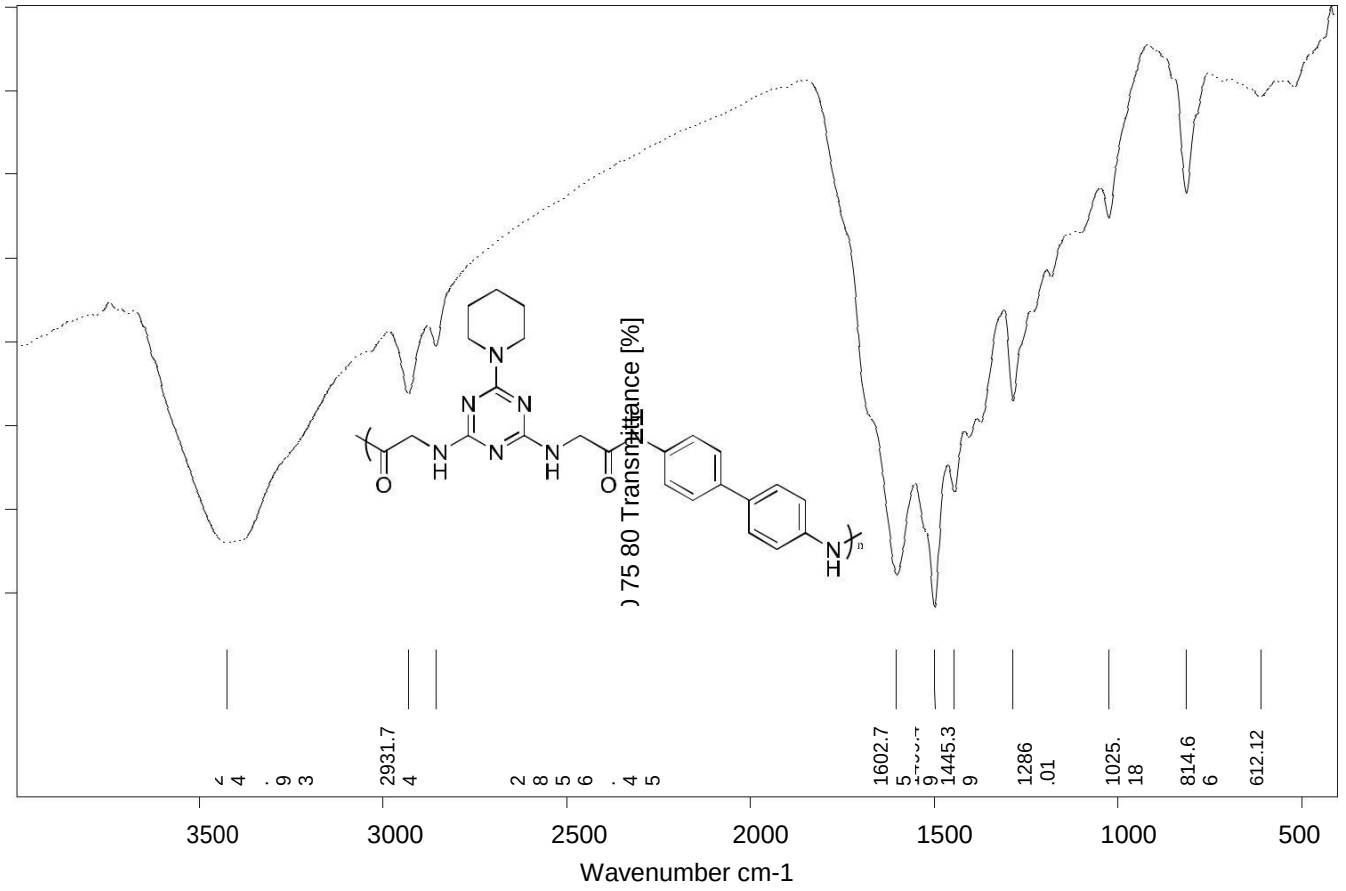


**Figure 58**: IR (KBr) of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **33**.

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**Page 1/1**

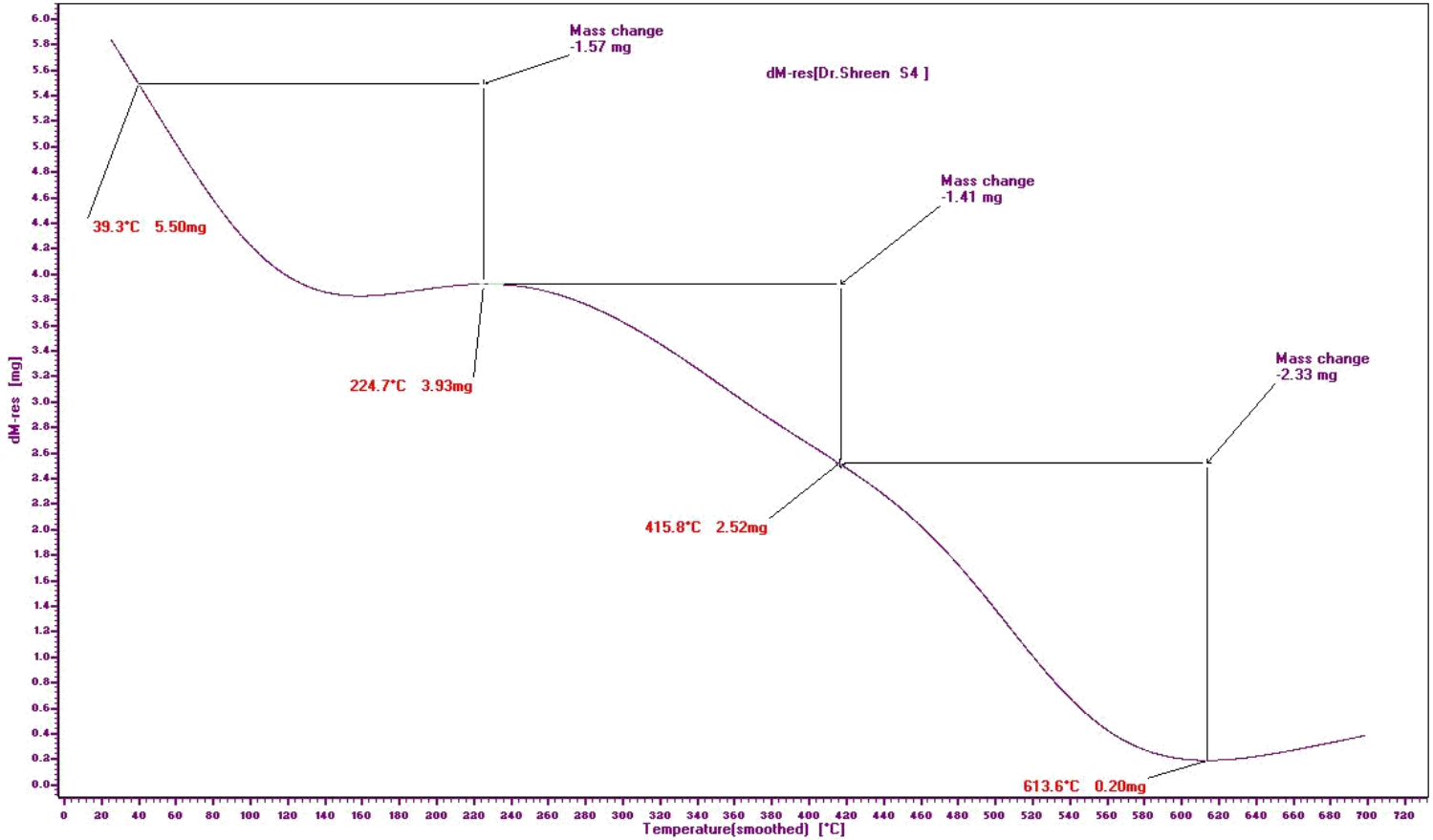


**Figure 59**: TGA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **33**.

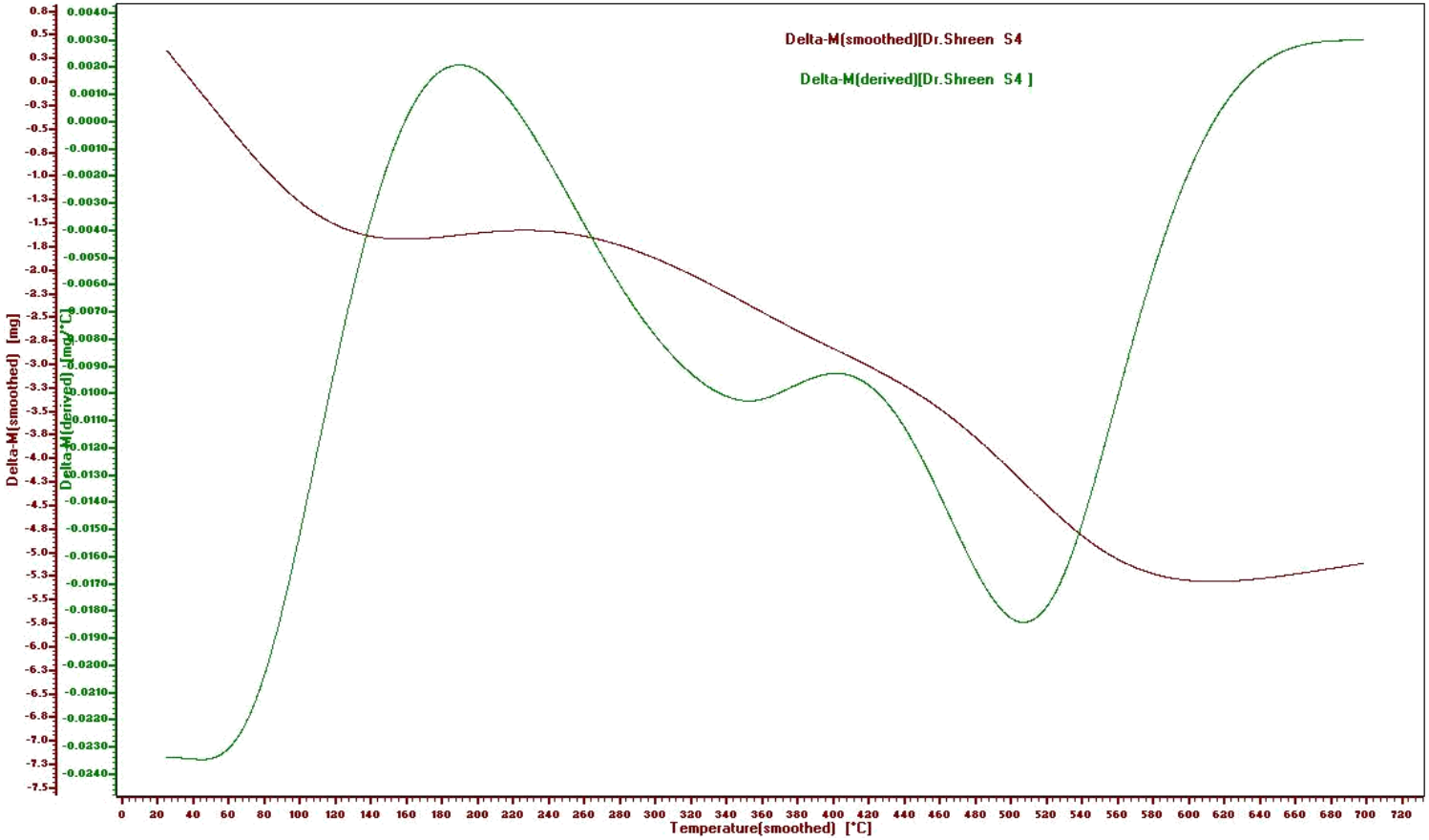


**Figure 60**: TGA/DTG of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **33**.

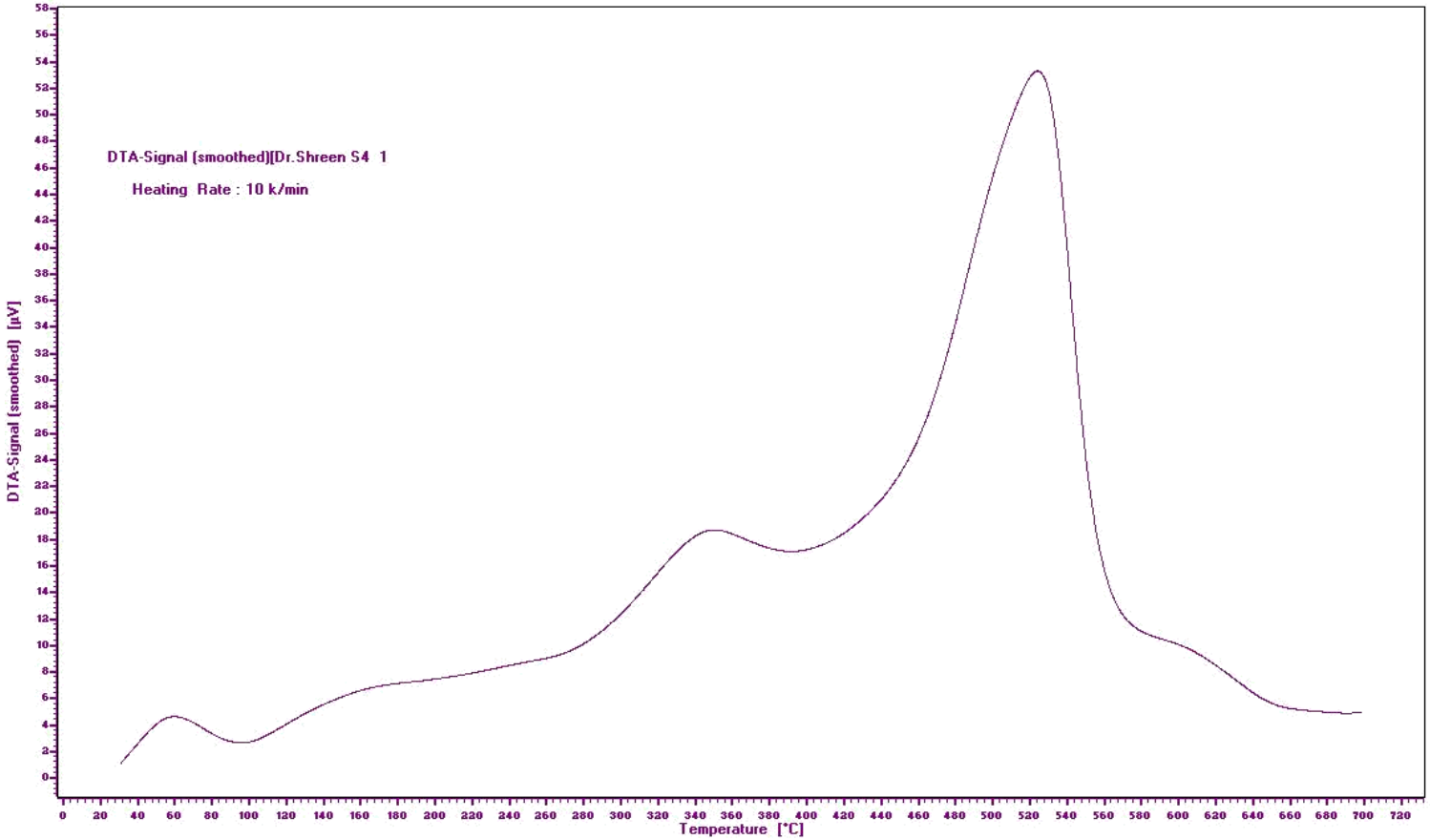


**Figure 61**: DTA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **33**.

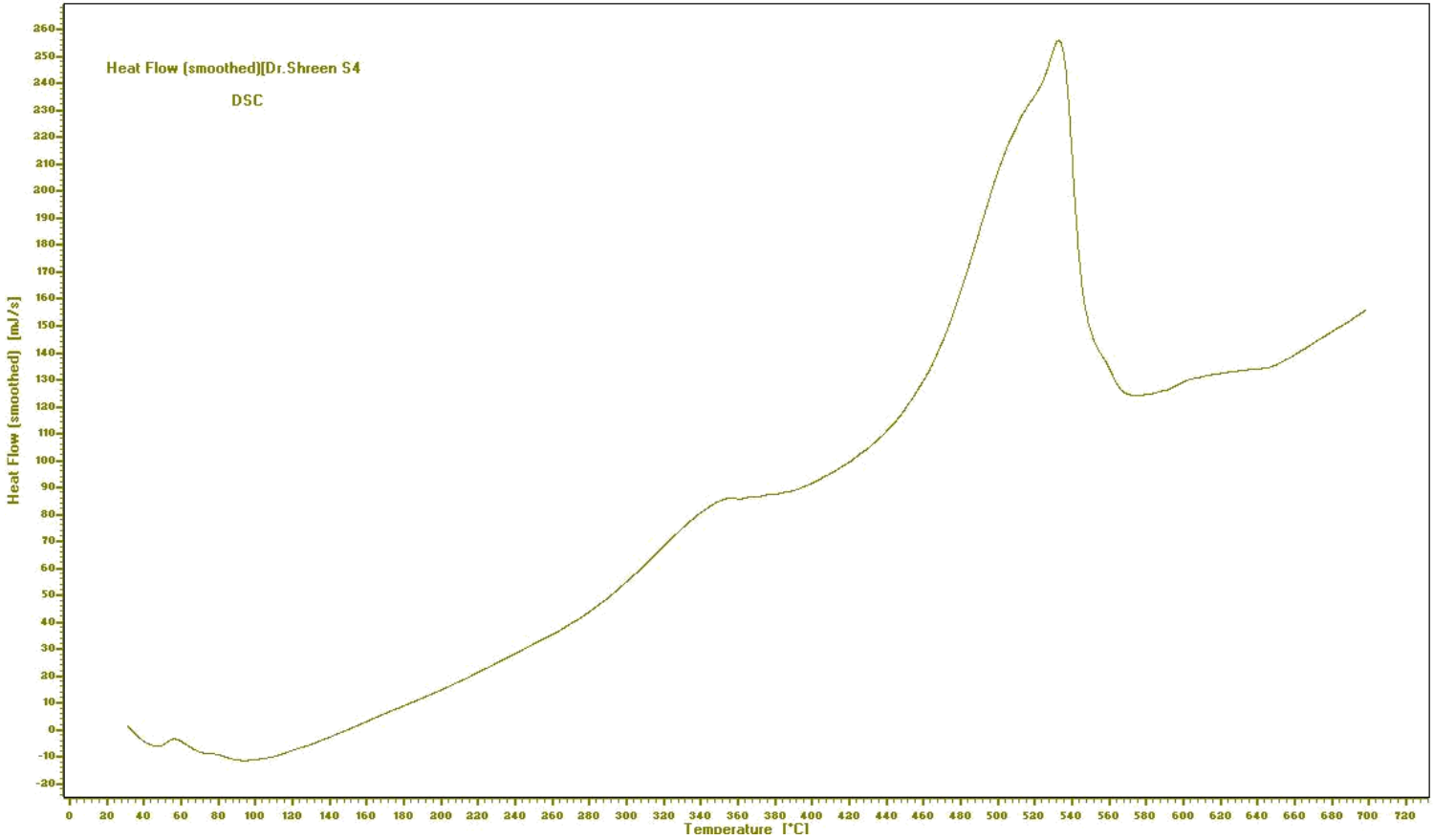


**Figure 62**: DSC of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **33**.

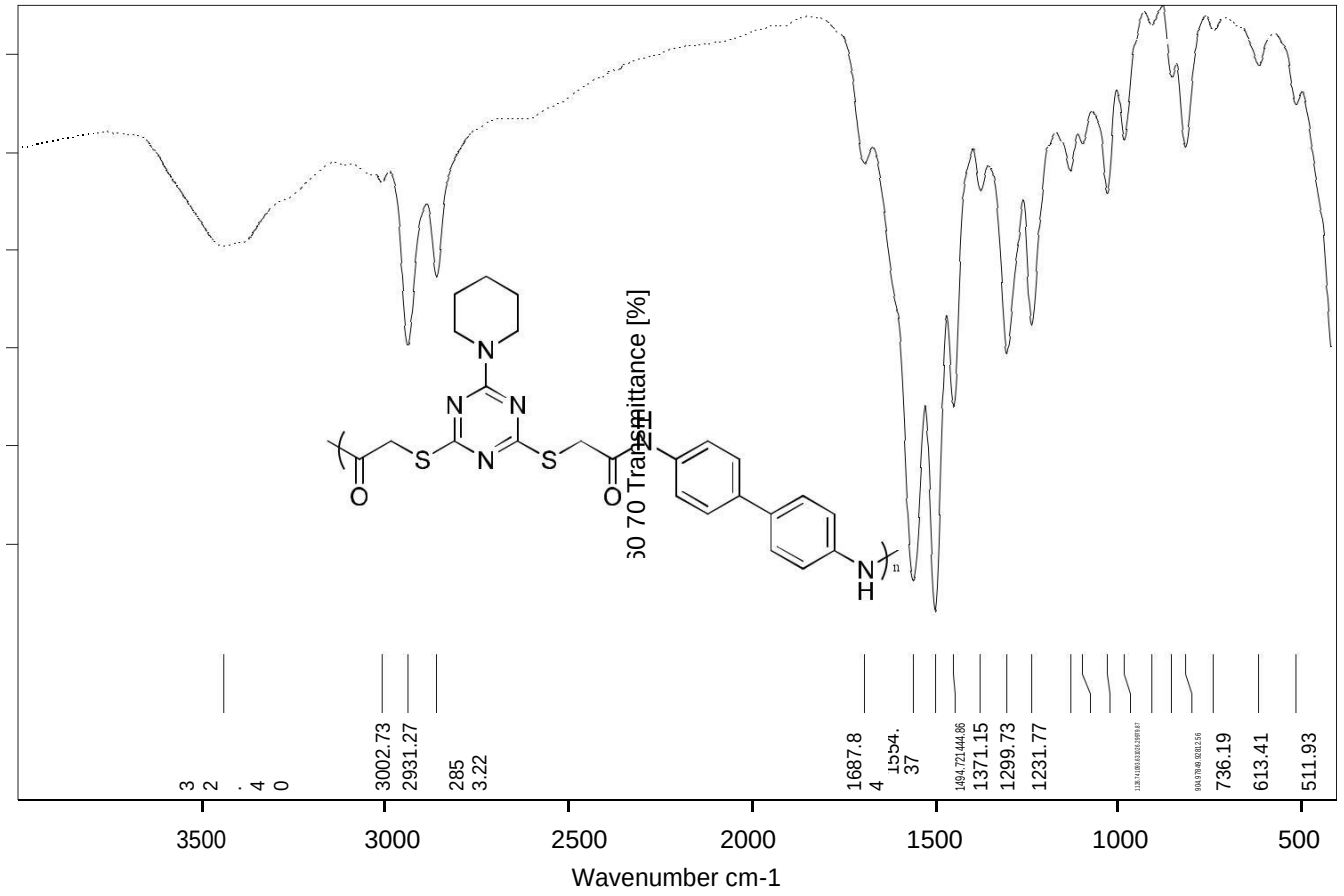


**Figure 63**: IR (KBr) of poly[2 -(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **34**.

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**Page 1/1**

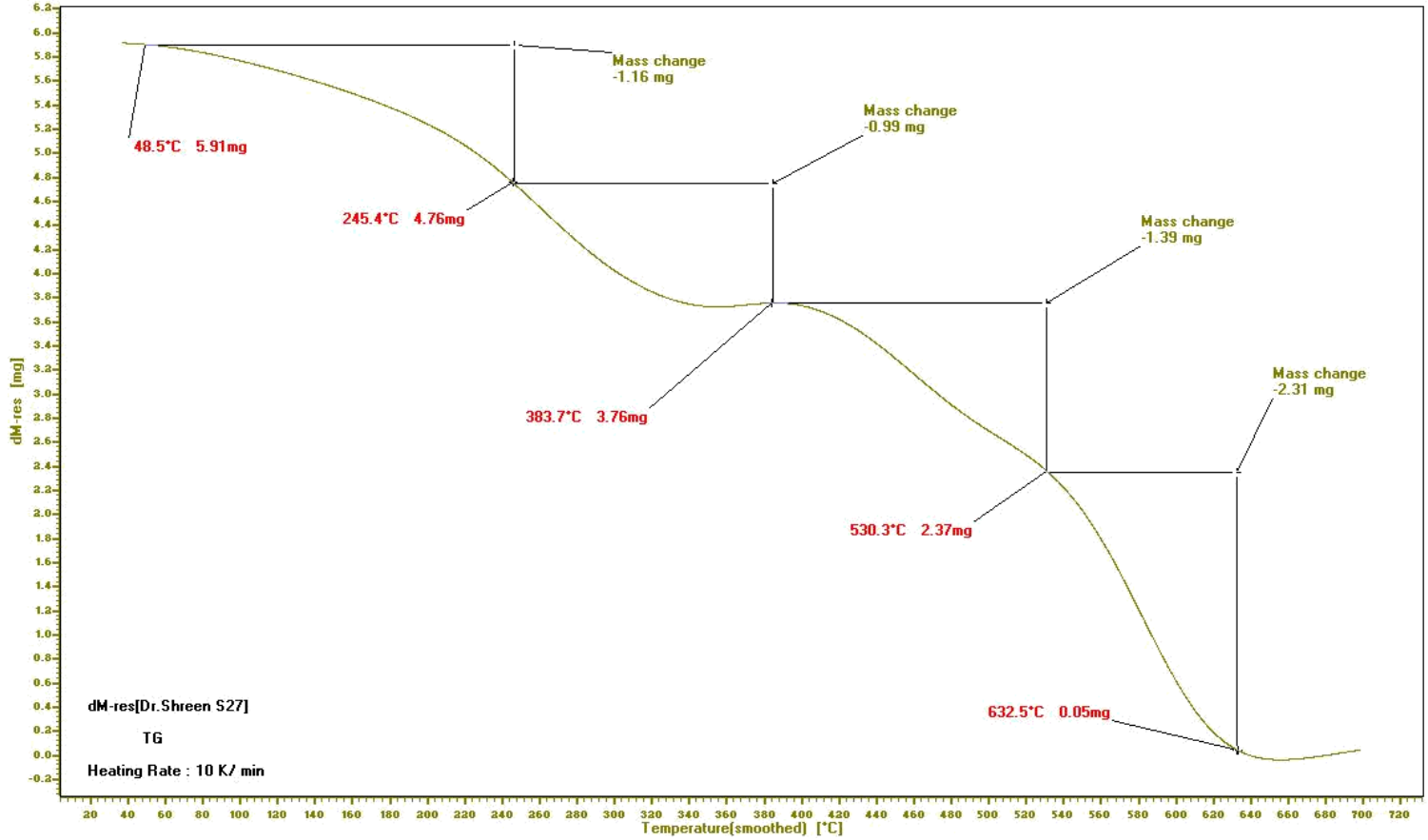


**Figure 64**: TGA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **34.**

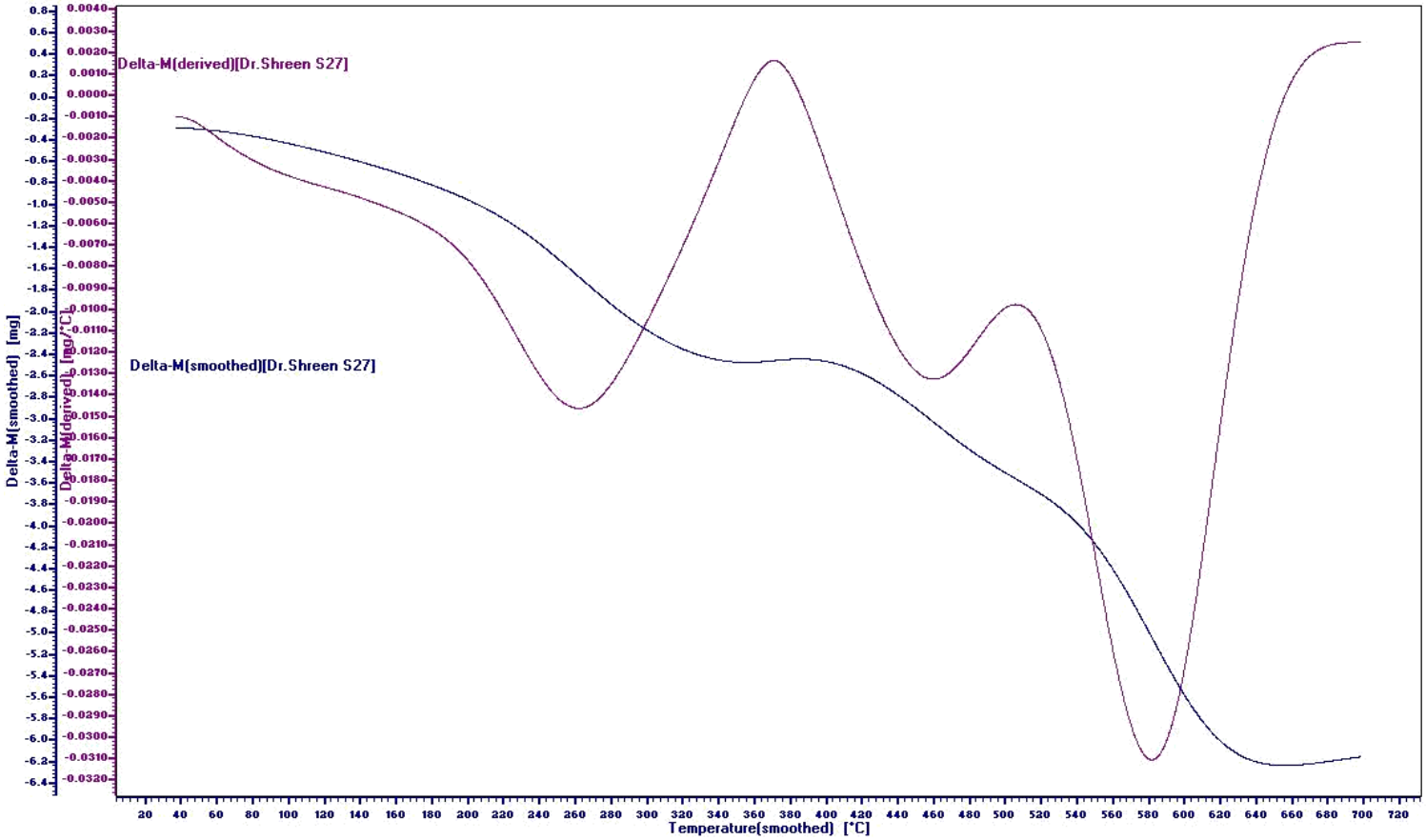


**Figure 65**: TGA/DTG of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **34**.

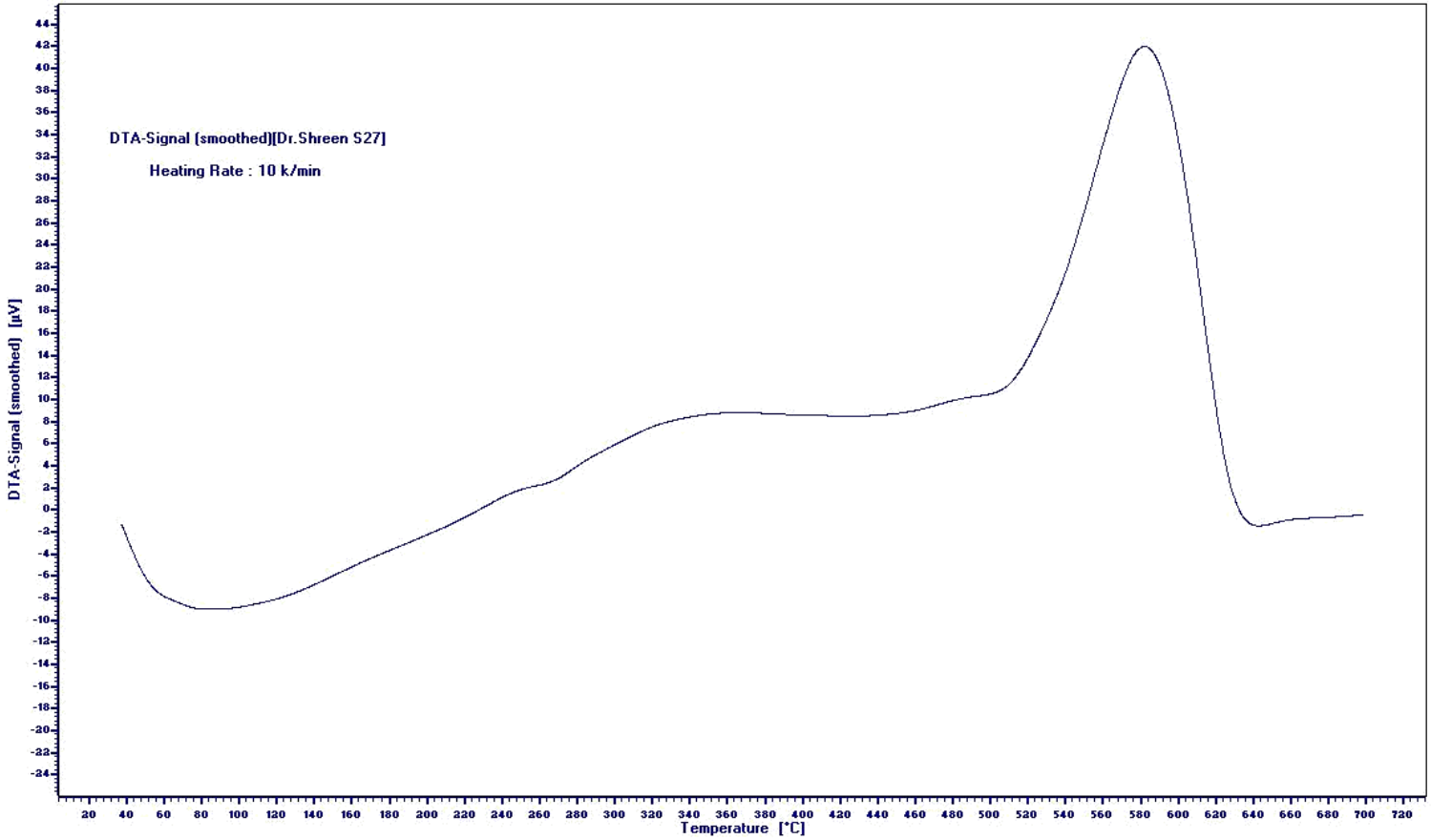


**Figure 66**: DTA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **34**.

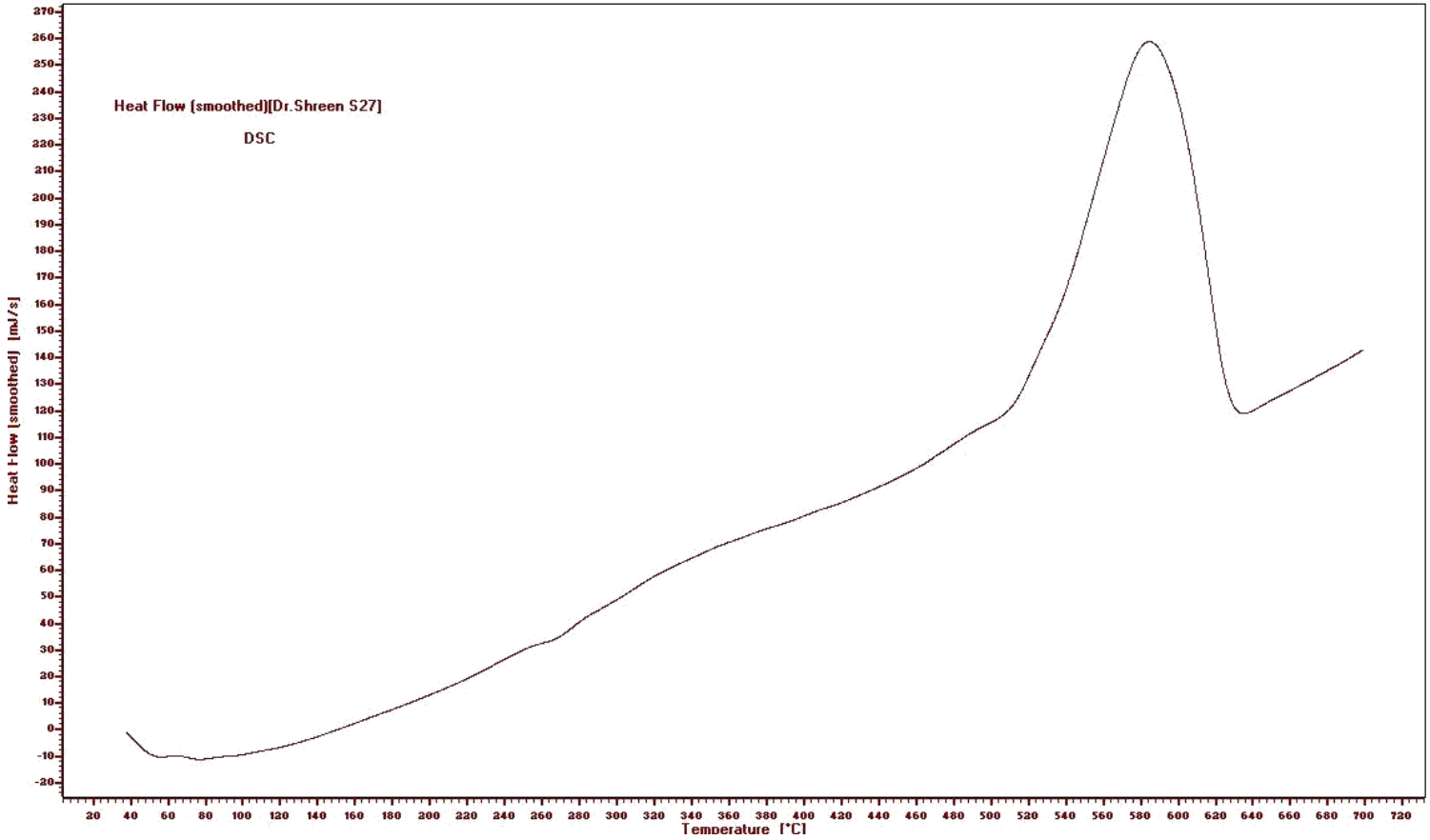


**Figure 67**: DSC of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **34**.

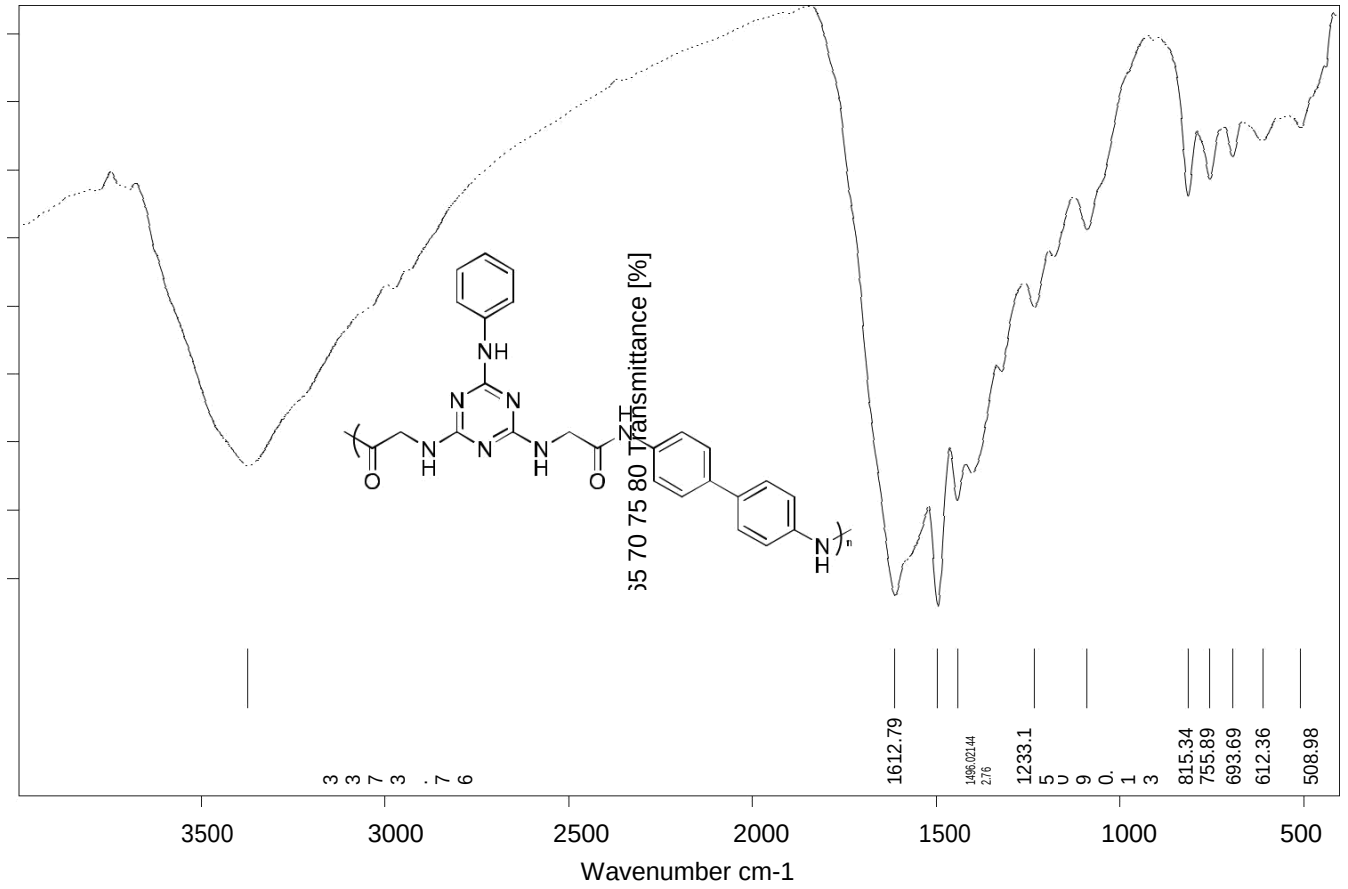


**Figure 68**: IR (KBr) of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic

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**Page 1/1**

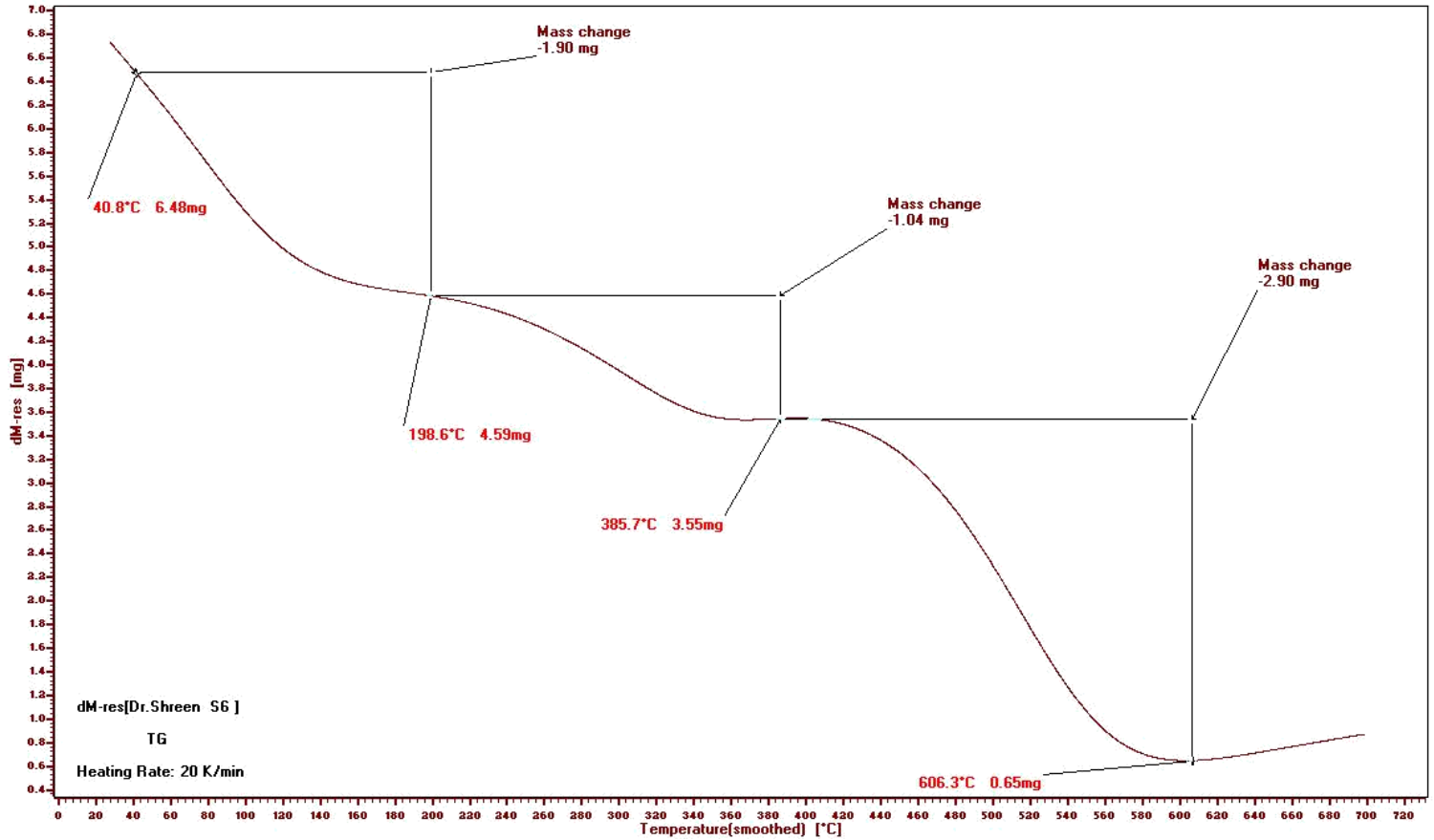


**Figure 69**: TGA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **35**.

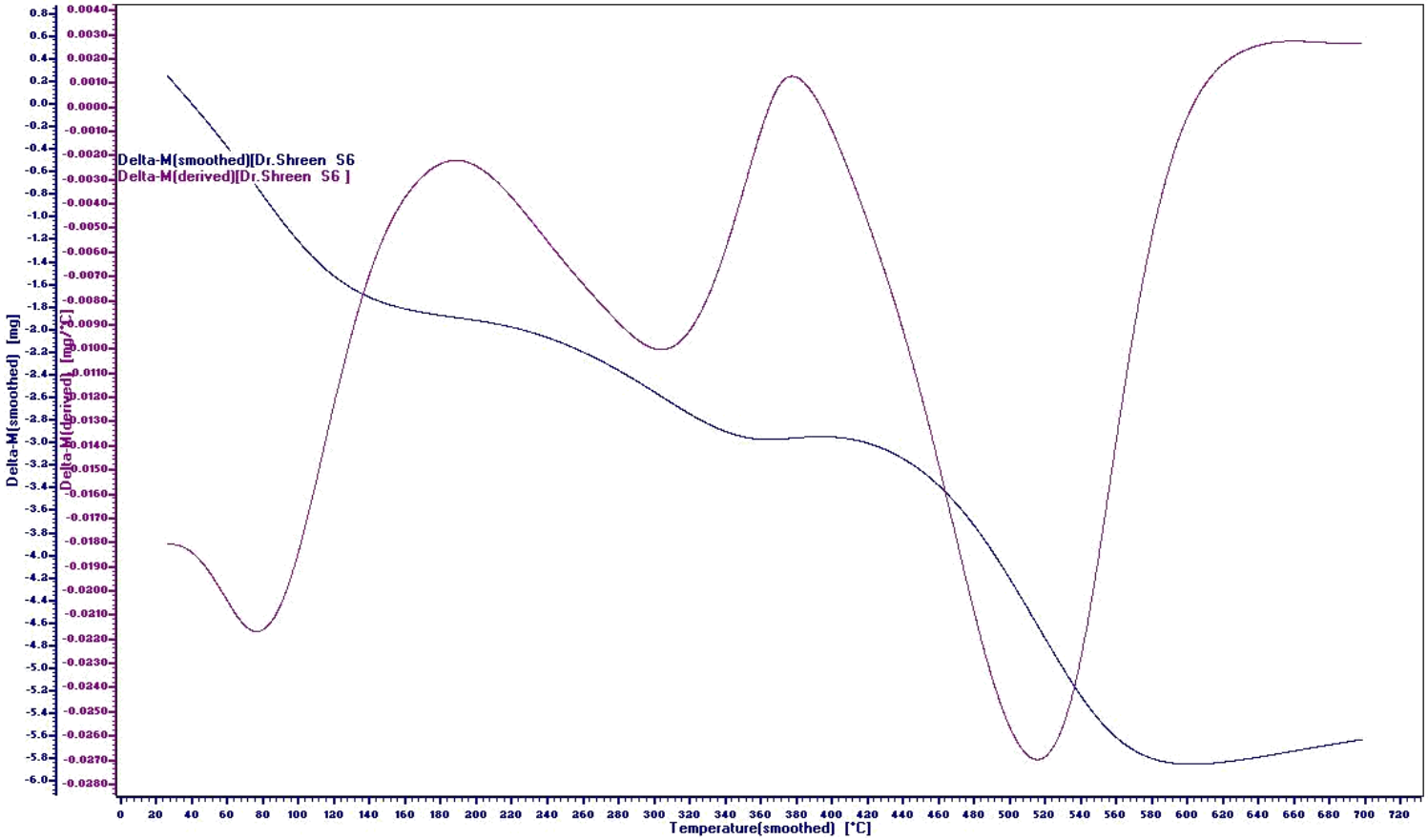


**Figure 70**: TGA/DTG of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **35**.

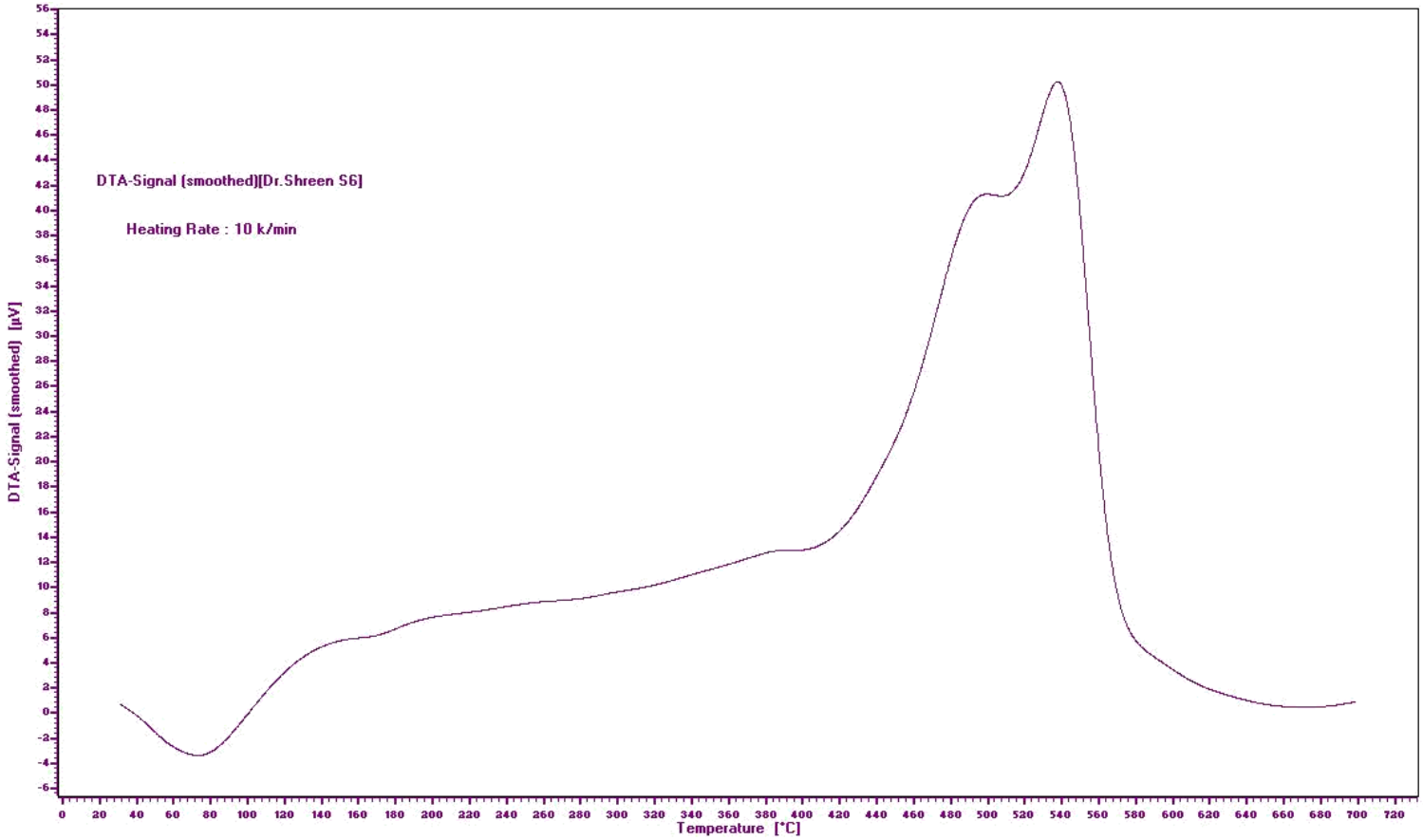


**Figure 71**: DTA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **35**.

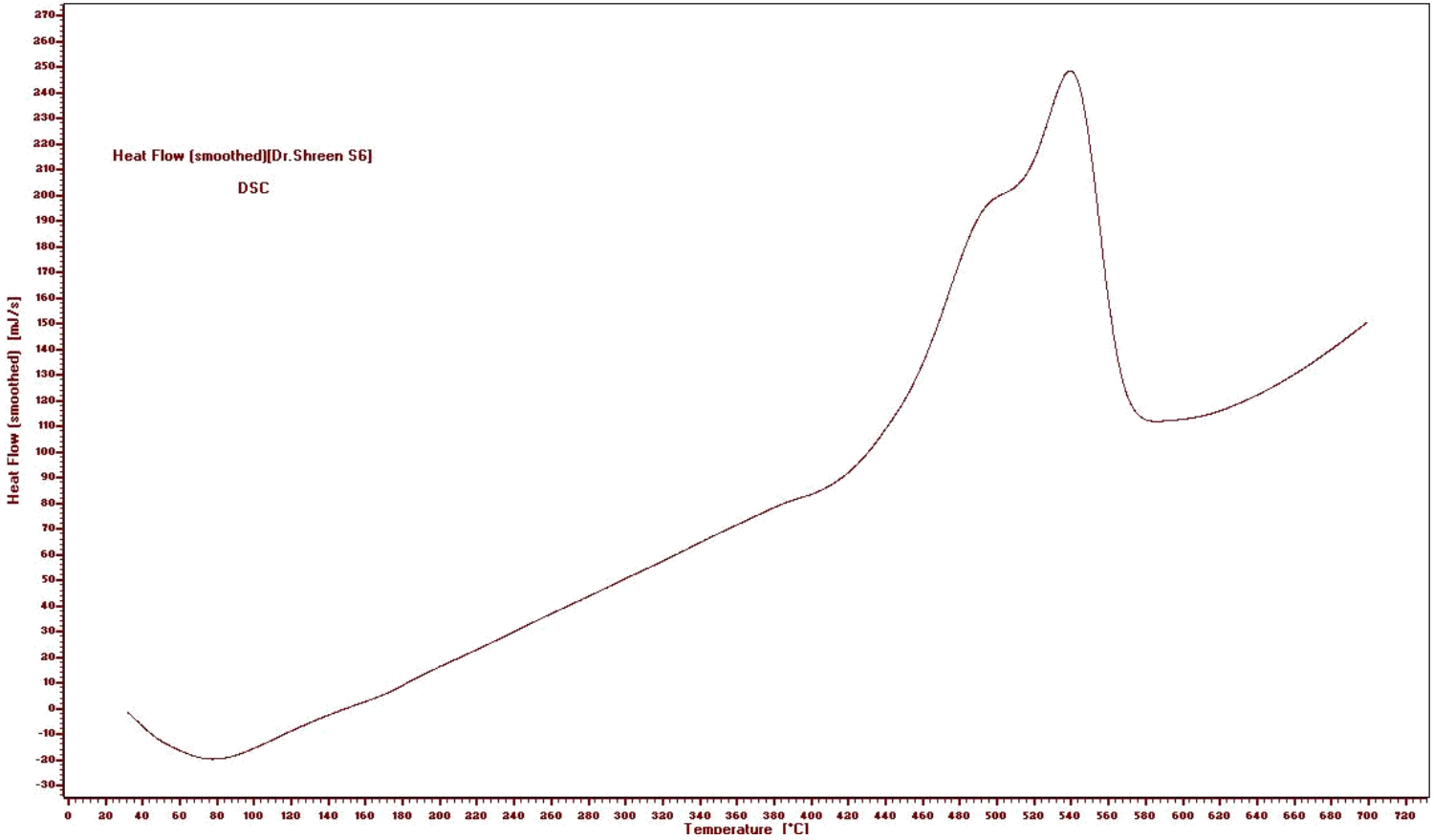


**Figure 72**: DSC of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **35**.

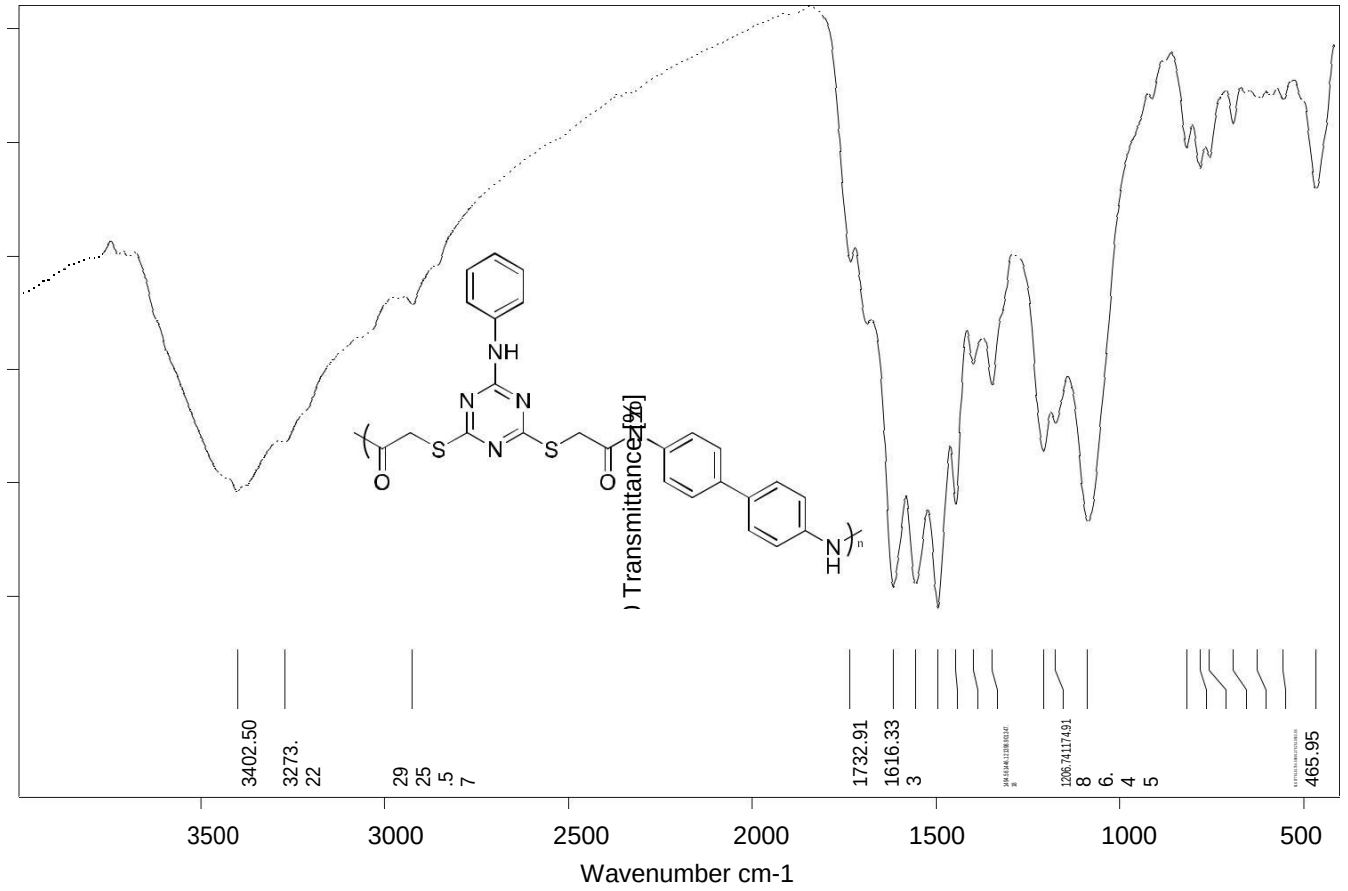


**Figure 73**: IR (KBr) of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid]

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**Page 1/1**

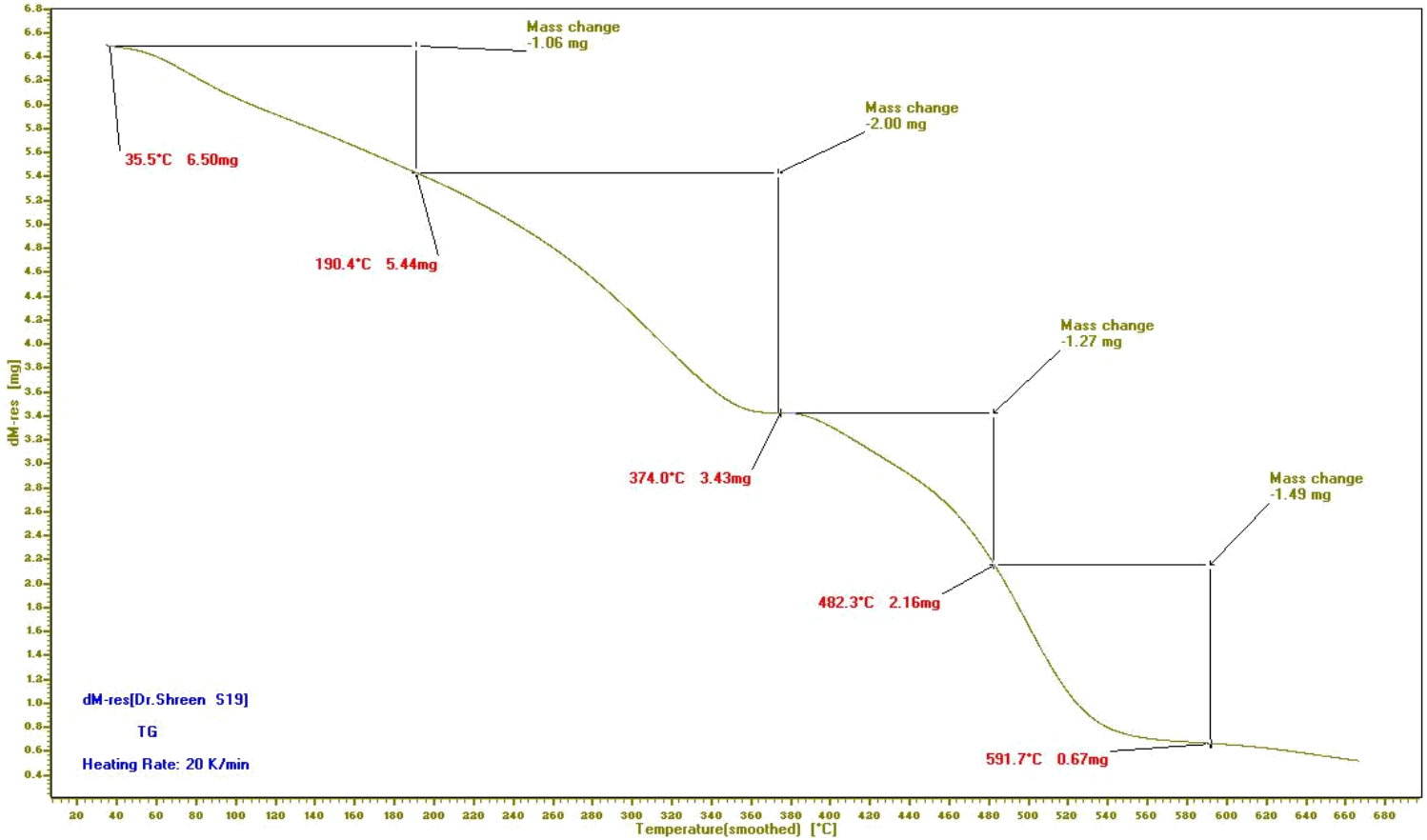


**Figure 74**: TGA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **36**.

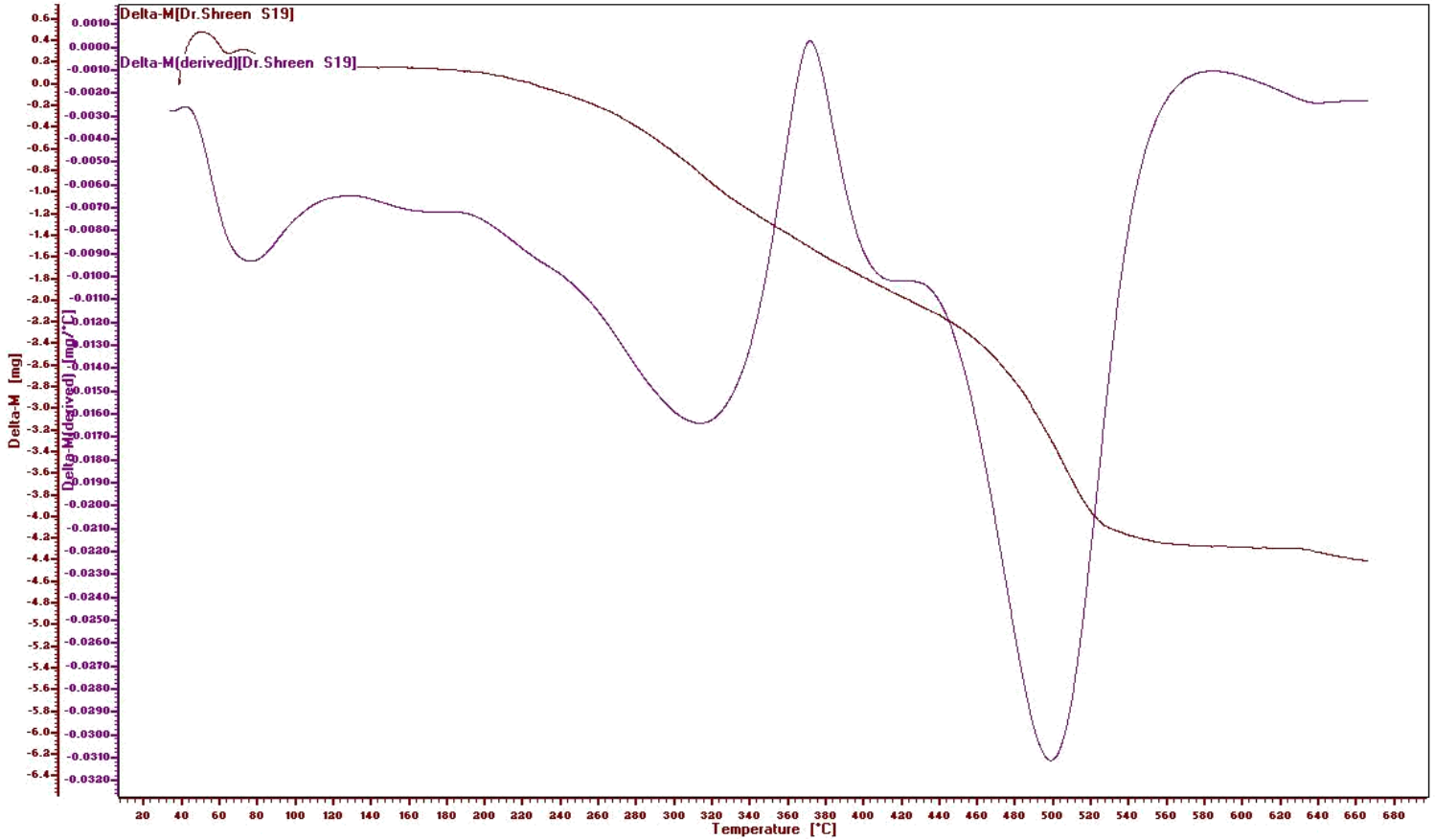


**Figure 75**: TGA/DTG of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **36**.

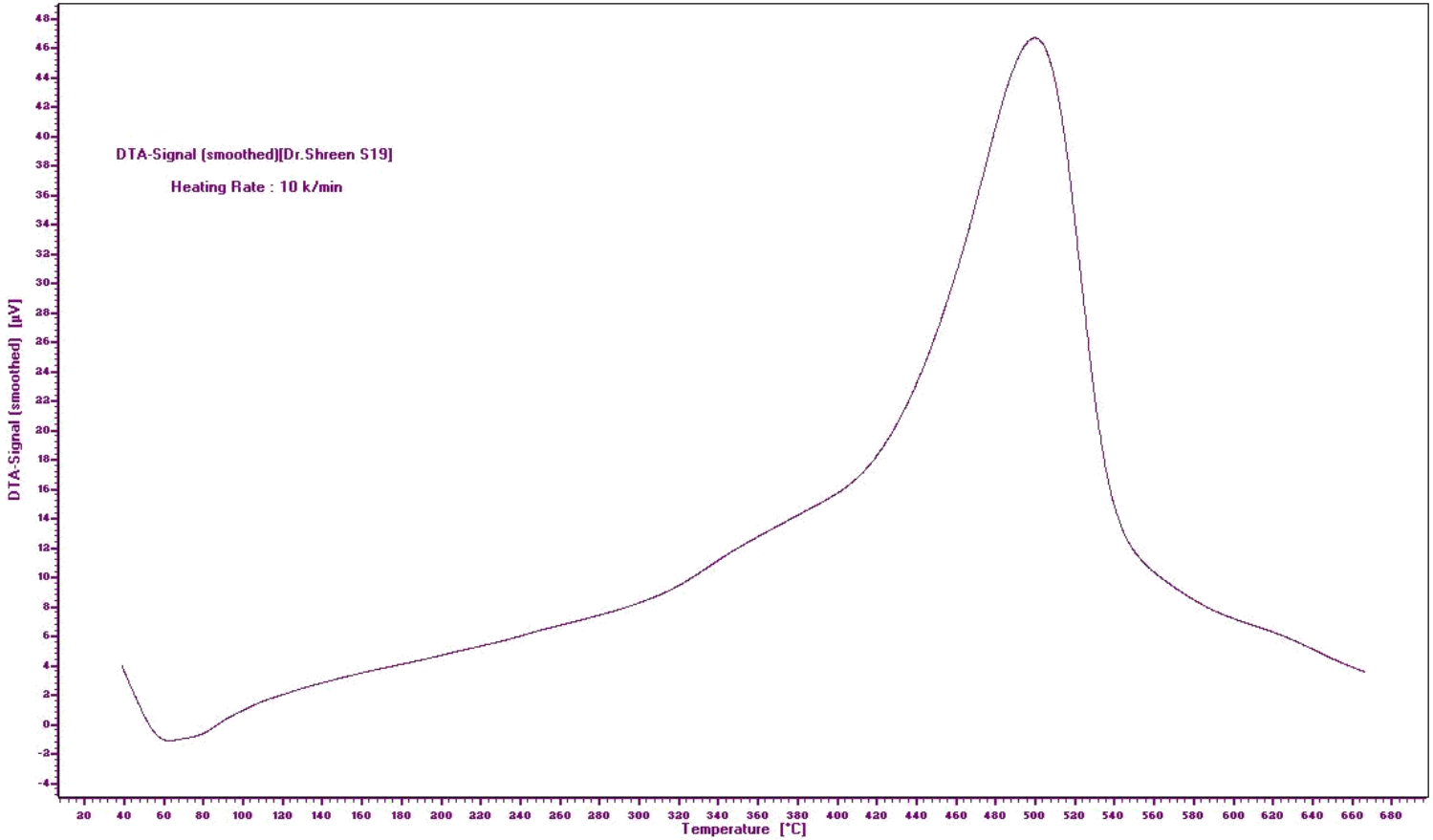


**Figure 76**: DTA of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **36**.

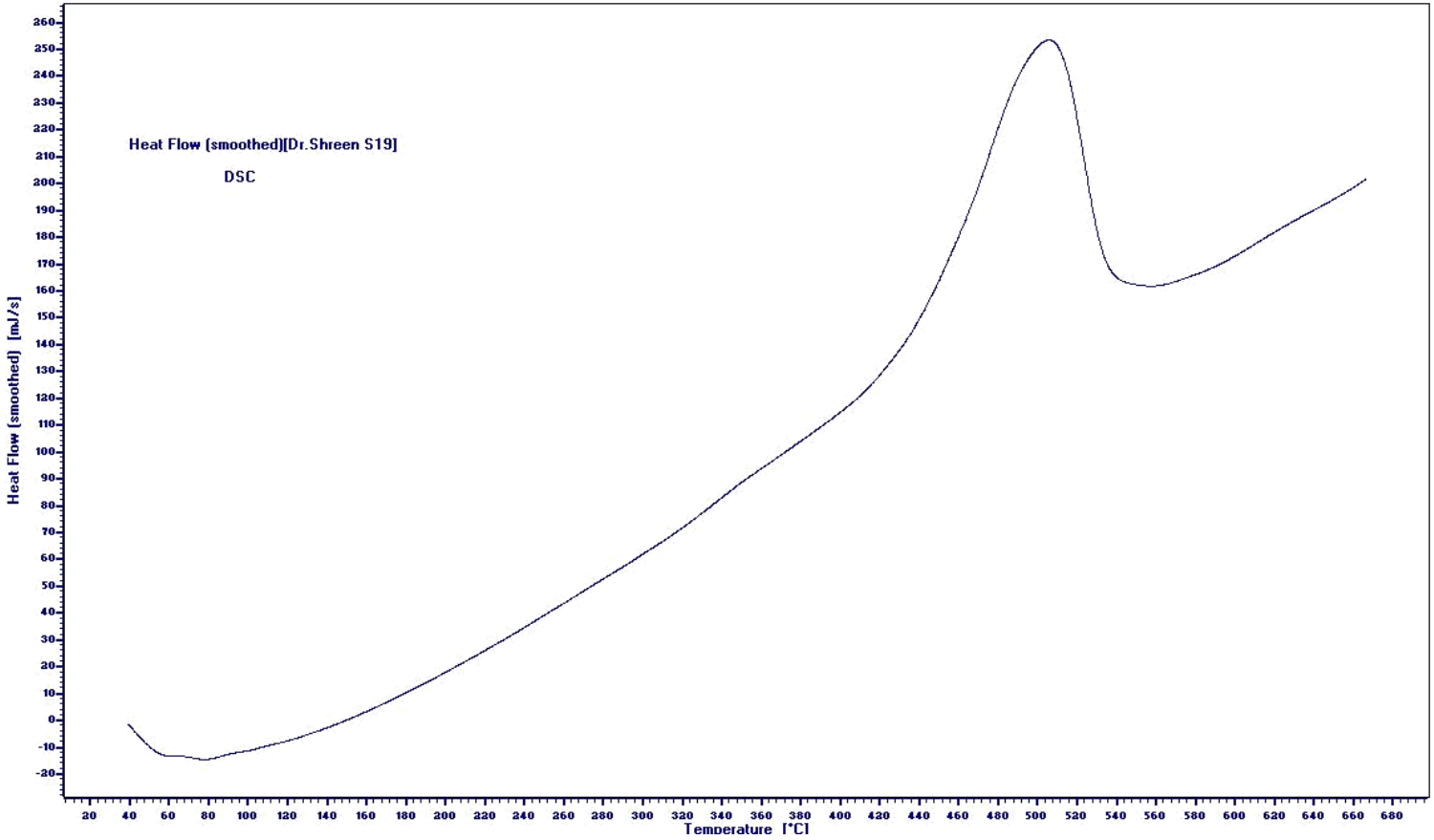


**Figure 77**: DSC of poly[2-(4-(2-(4'-aminobiphenyl-4-ylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **36**.

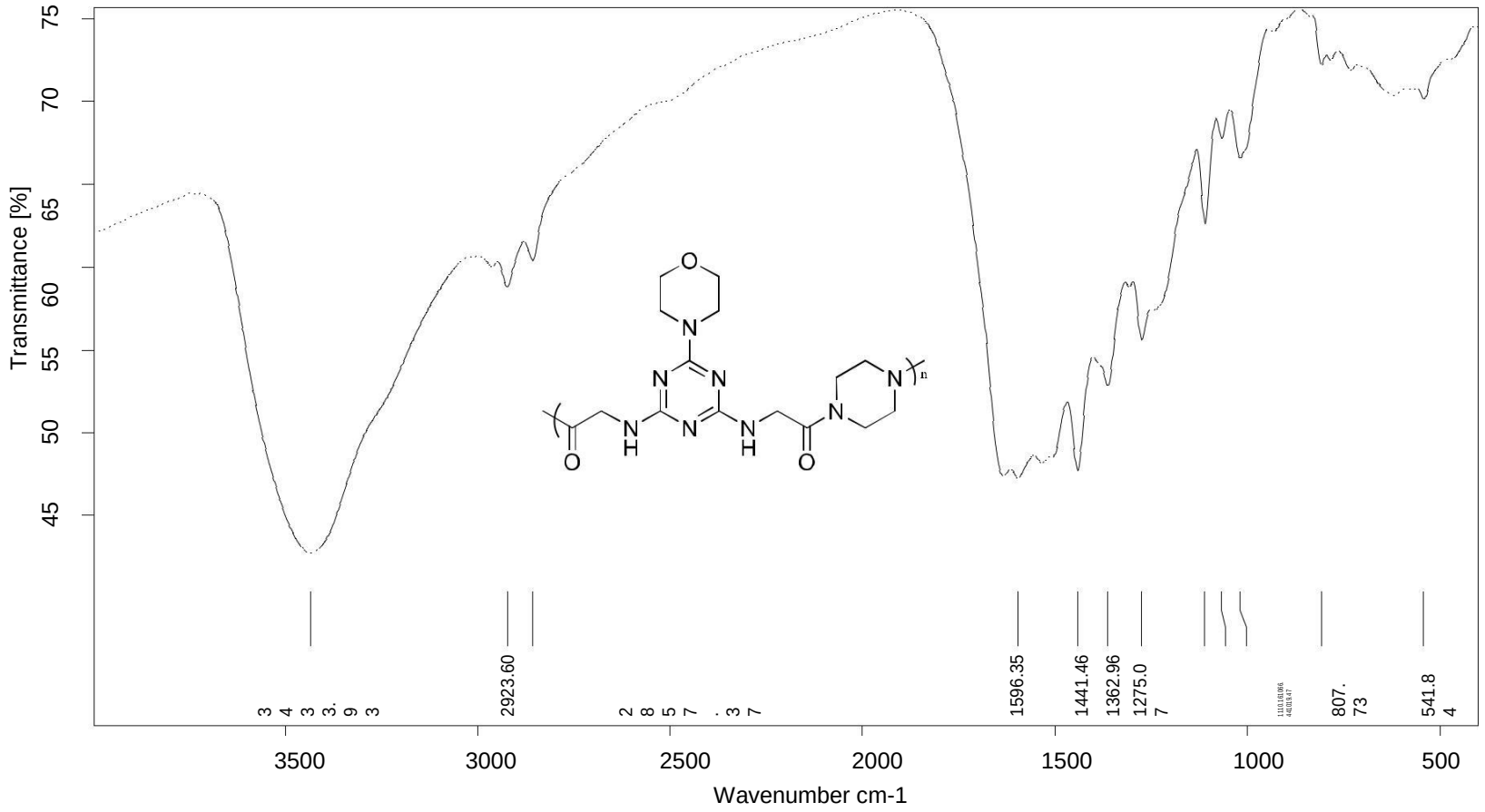


**Figure 78**: IR (KBr) of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylamino)-1,3,5-triazin-2-ylamino)acetic acid] **37**.

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**Page 1/1**

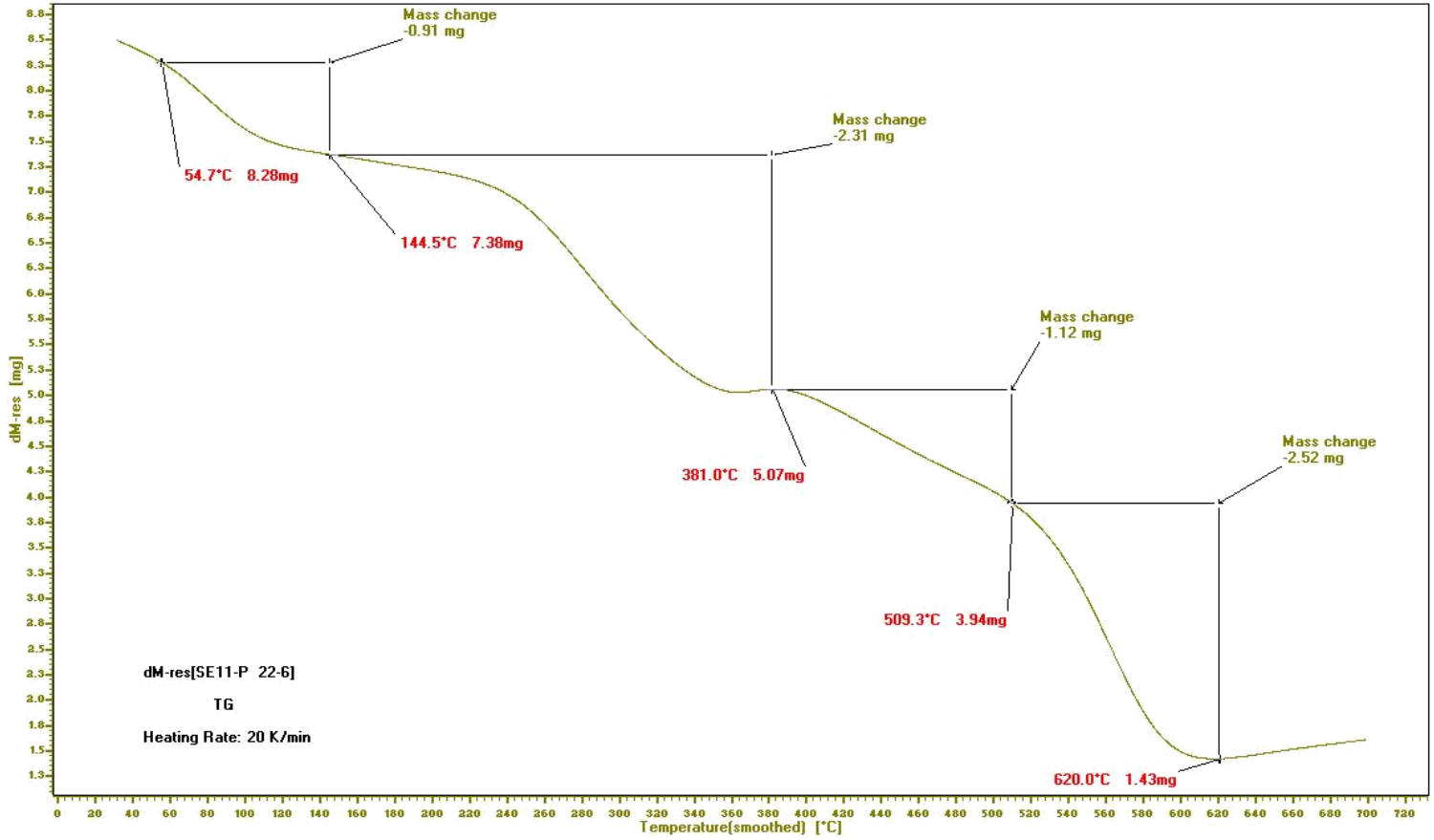


**Figure 79**: TGA of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylamino)-1,3,5-triazin-2-ylamino)acetic acid] **37**.

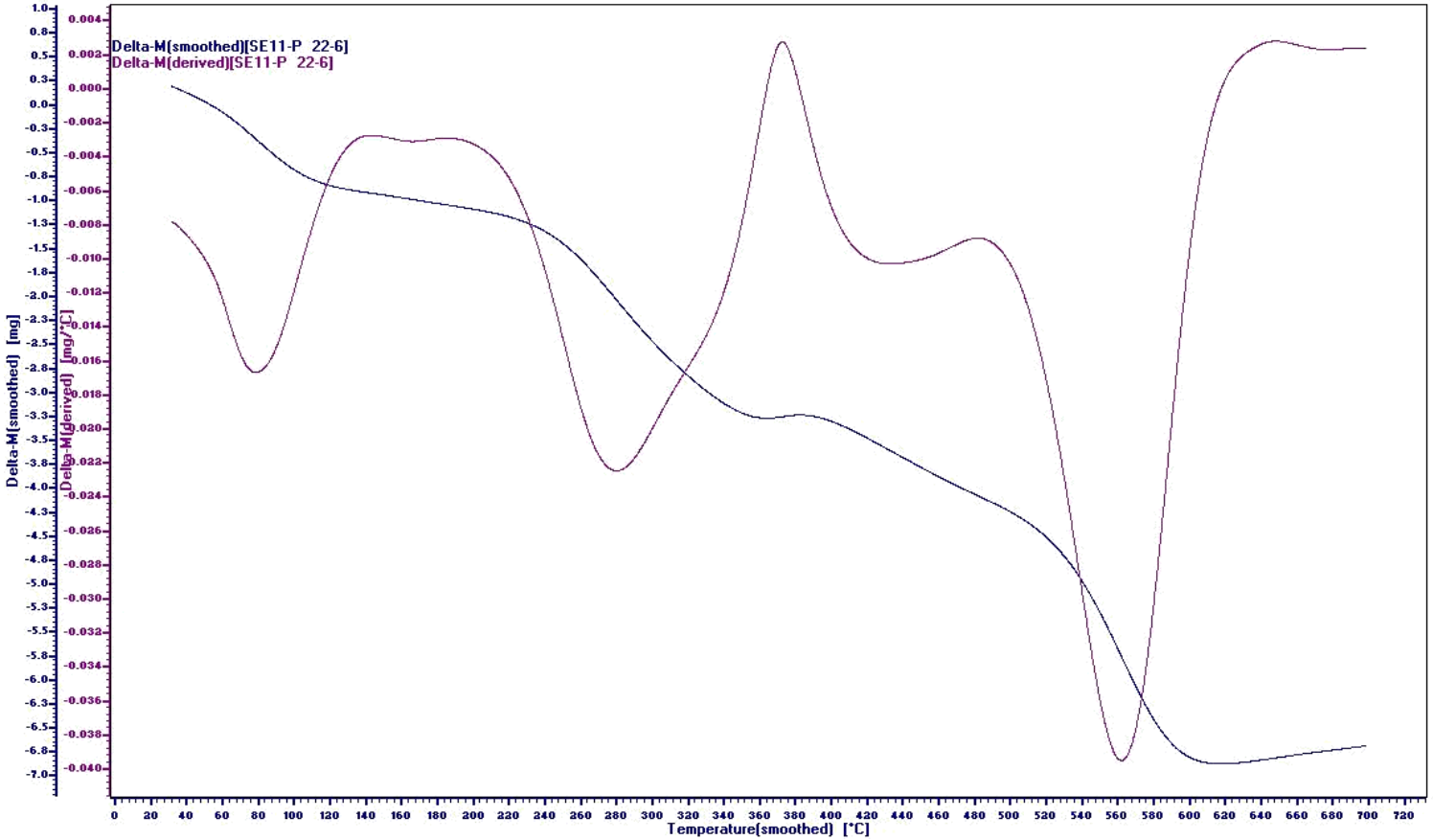


**Figure 80**: TGA/DTG of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylamino)-1,3,5-triazin-2-ylamino)acetic acid] **37**.

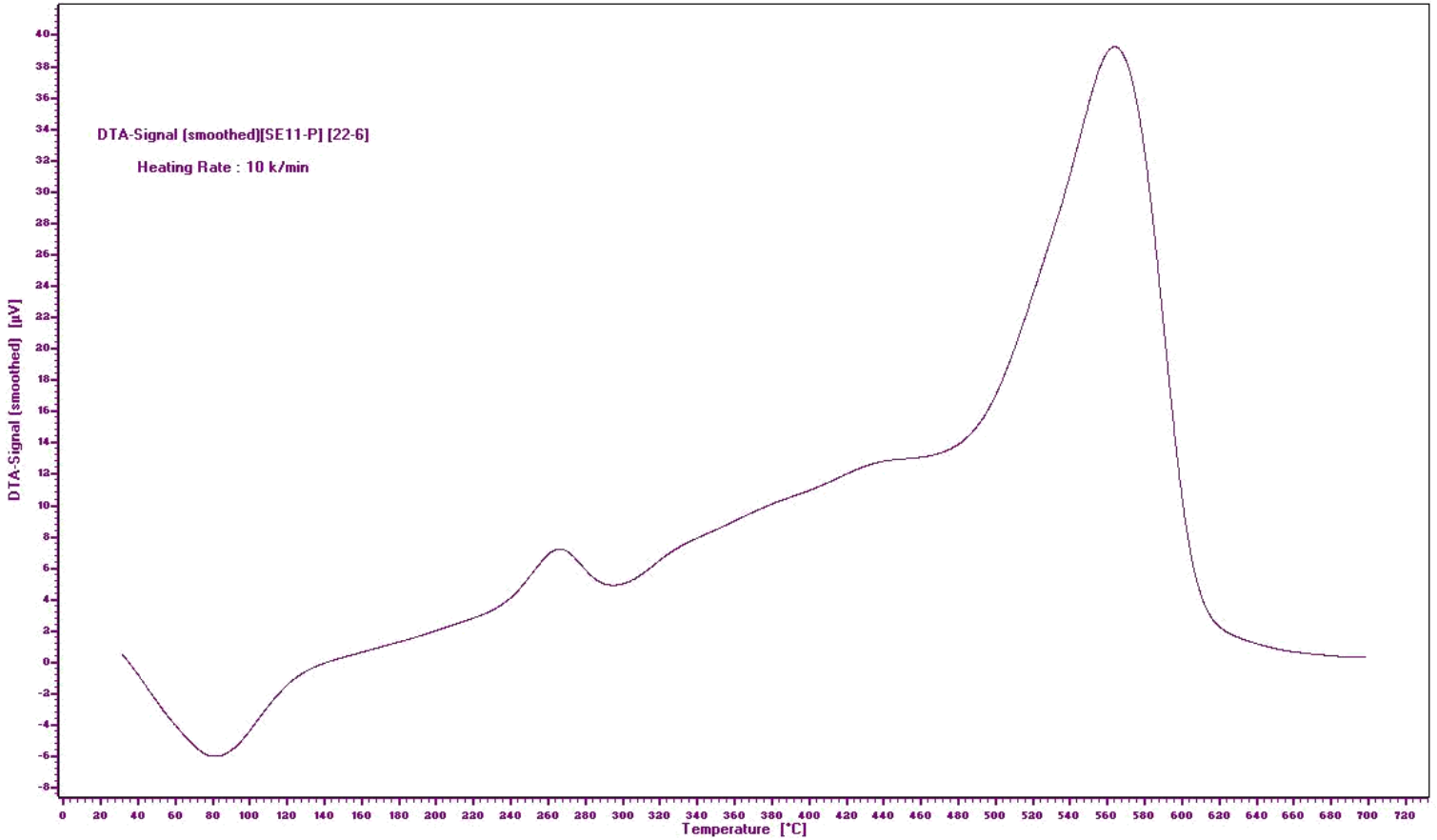


**Figure 81**: DTA of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylamino)-1,3,5-triazin-2-ylamino)acetic acid] **37**.

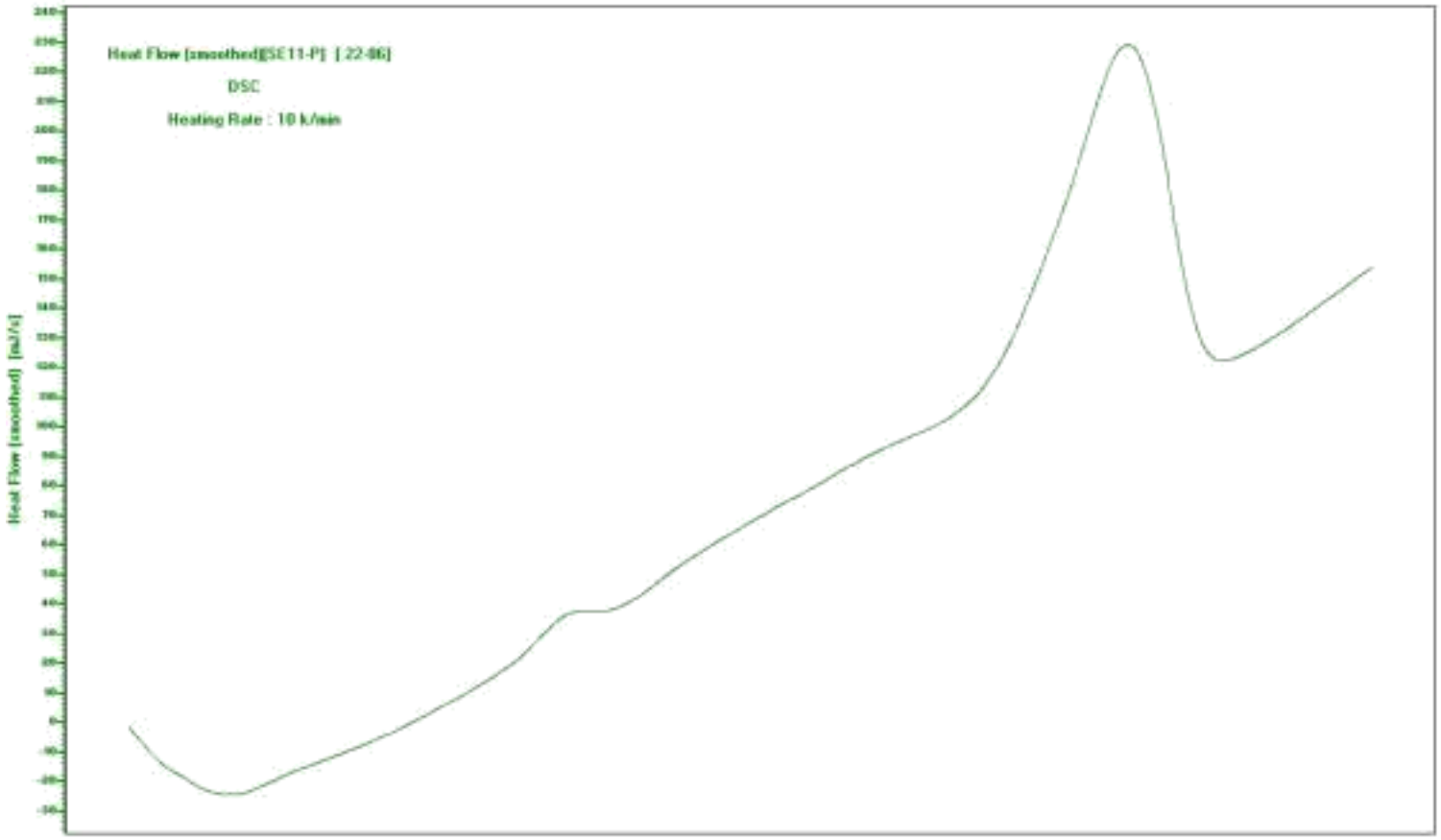


**Figure 82**: DSC of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylamino)-1,3,5-triazin-2-ylamino)acetic acid] **37**.

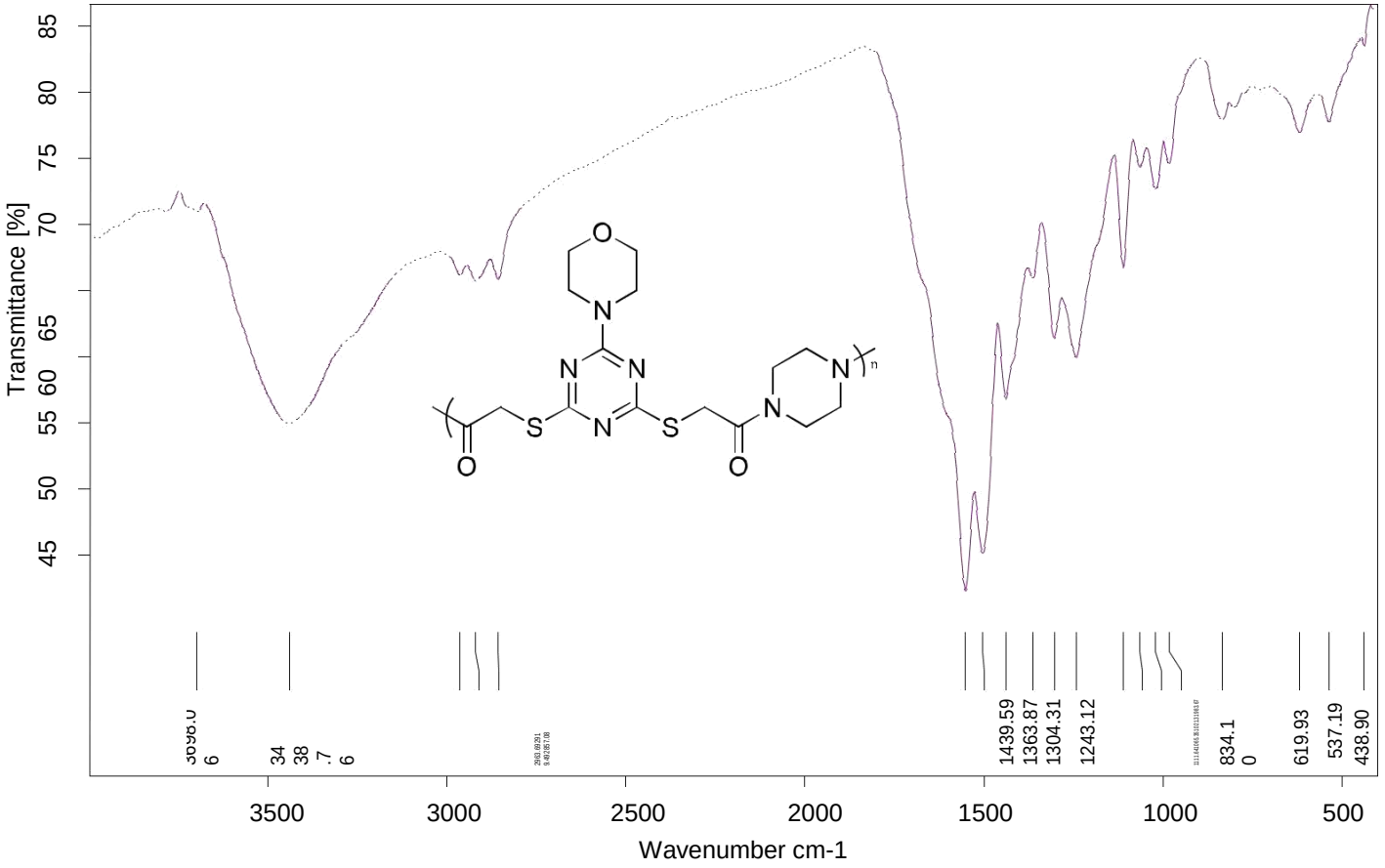


**Figure 83**: IR (KBr) of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylthio)-1,3,5-triazin-2-ylthio)acetic acid] **38**.

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**Page 1/1**

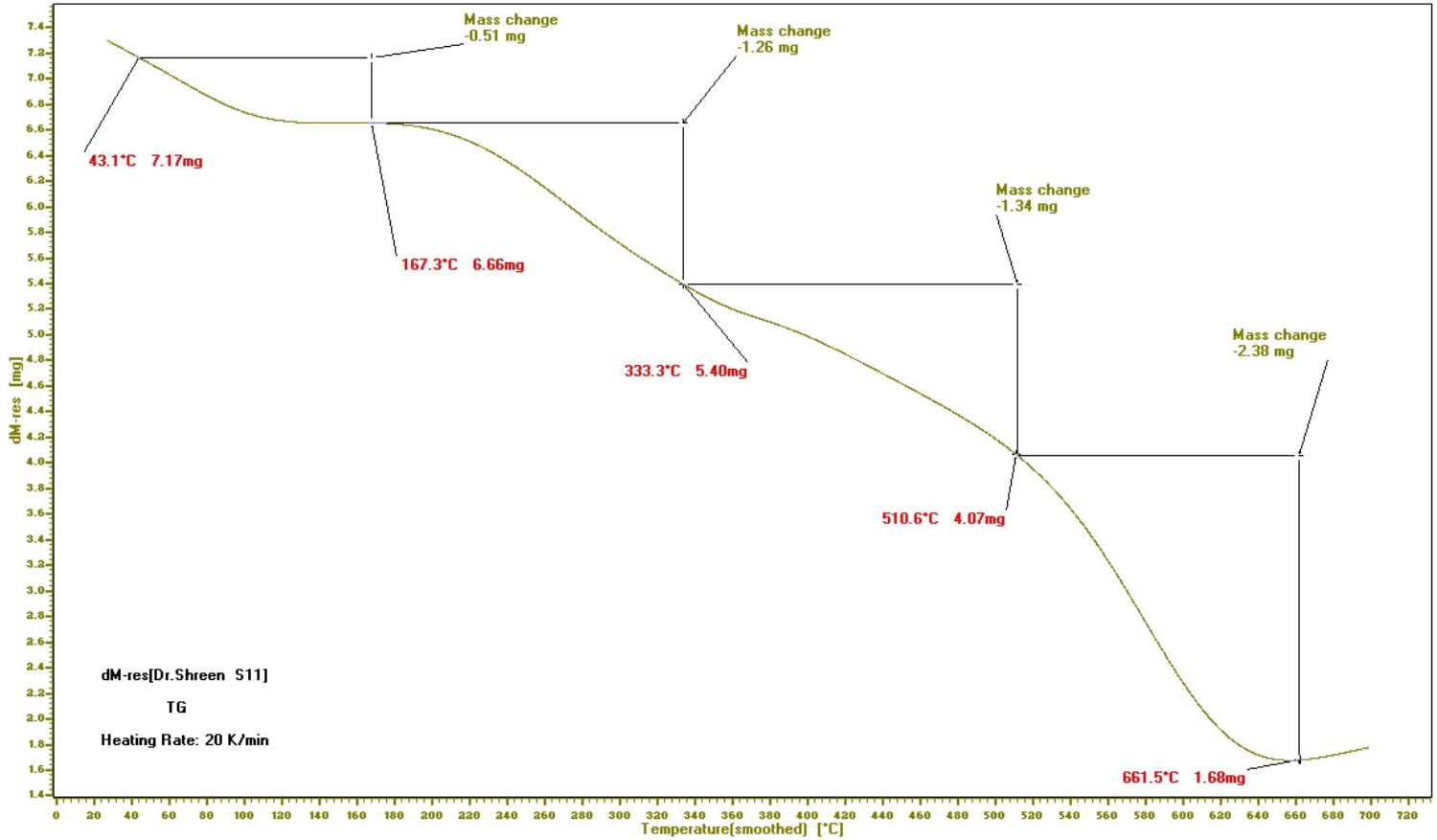


**Figure 84**: TGA of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylthio)-1,3,5-triazin-2-ylthio)acetic acid] **38**.

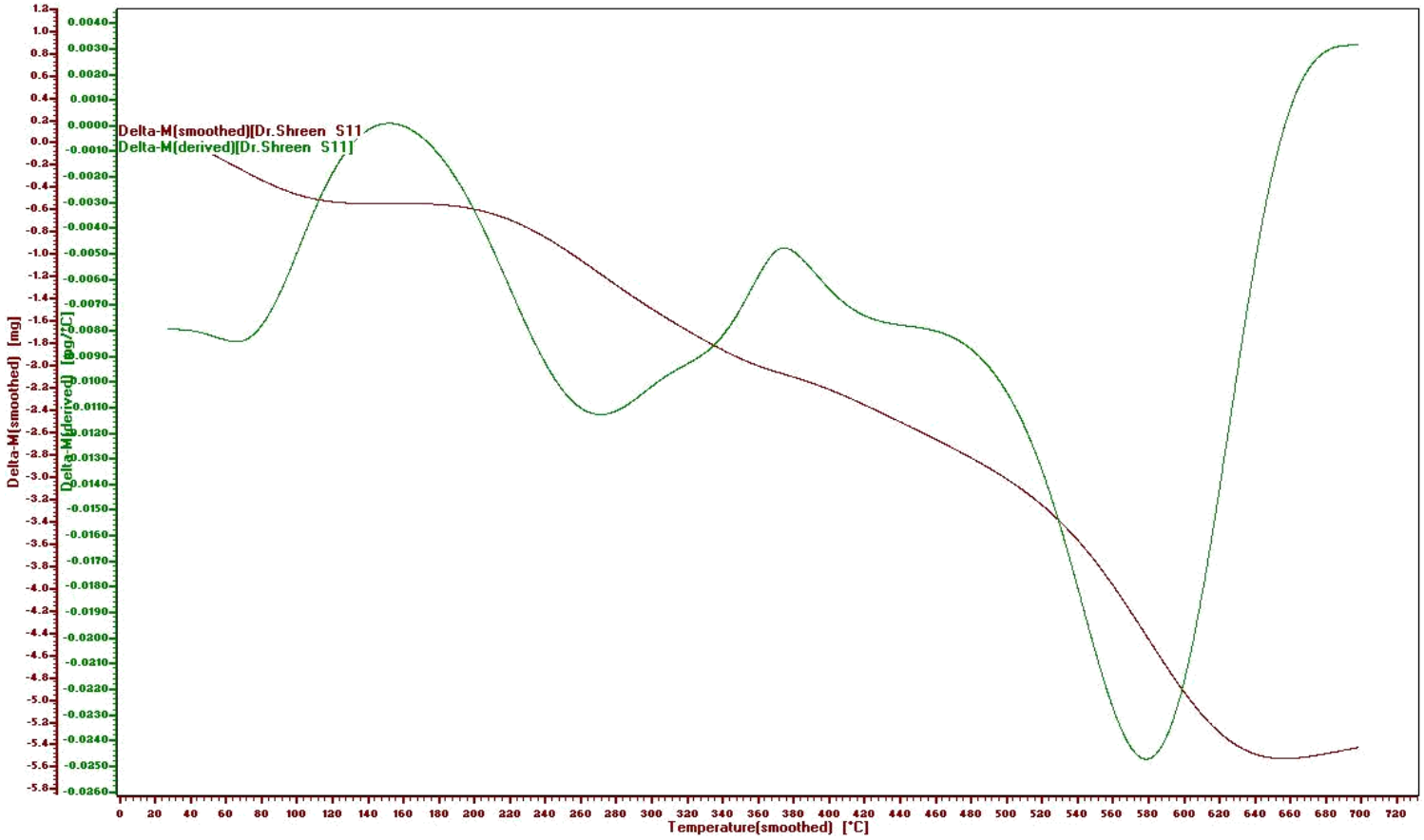


**Figure 85**: TGA/DTG of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylthio)-1,3,5-triazin-2-ylthio)acetic acid] **38**.

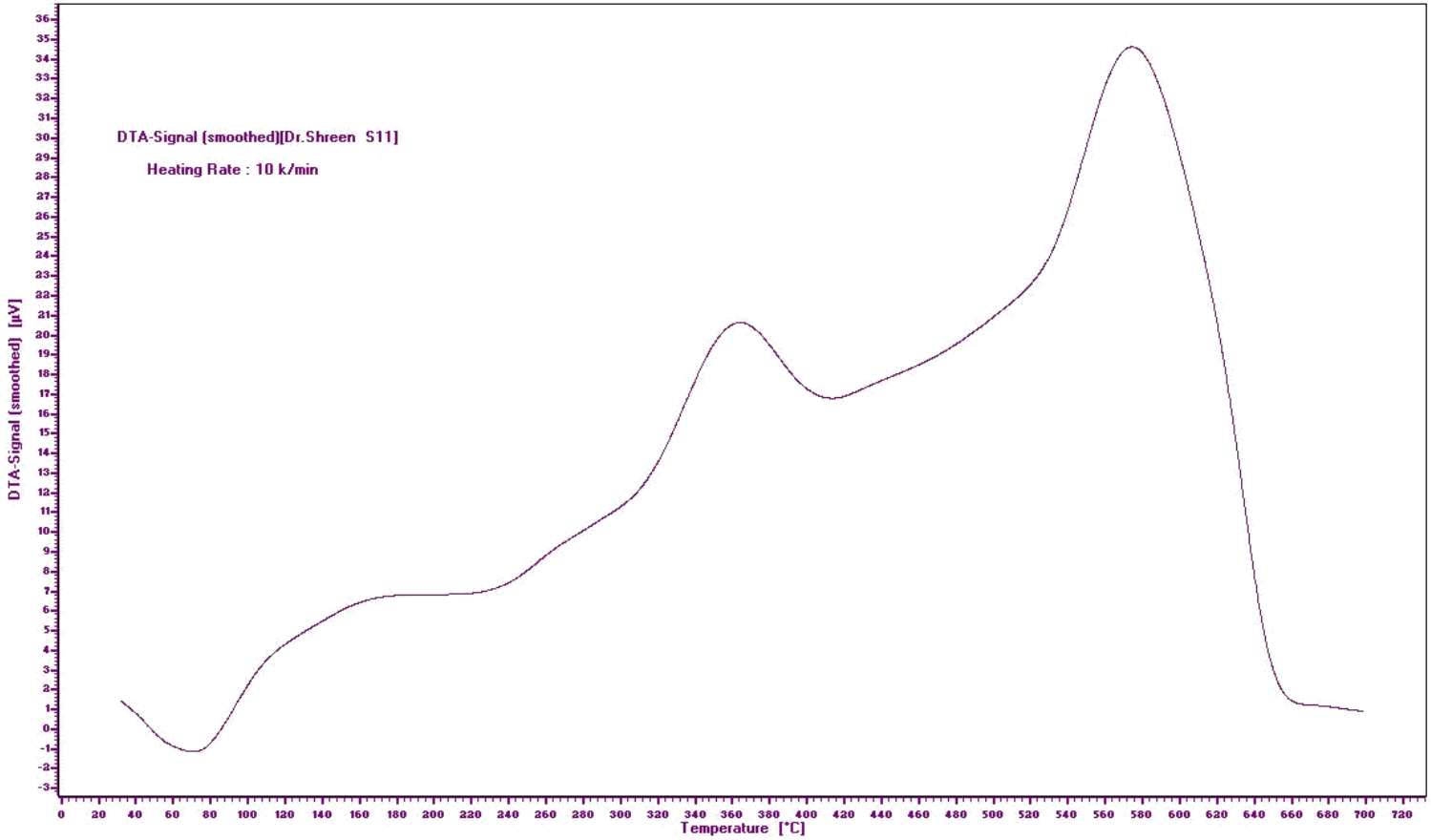


**Figure 86**: DTA of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylthio)-1,3,5-triazin-2-ylthio)acetic acid] **38**.

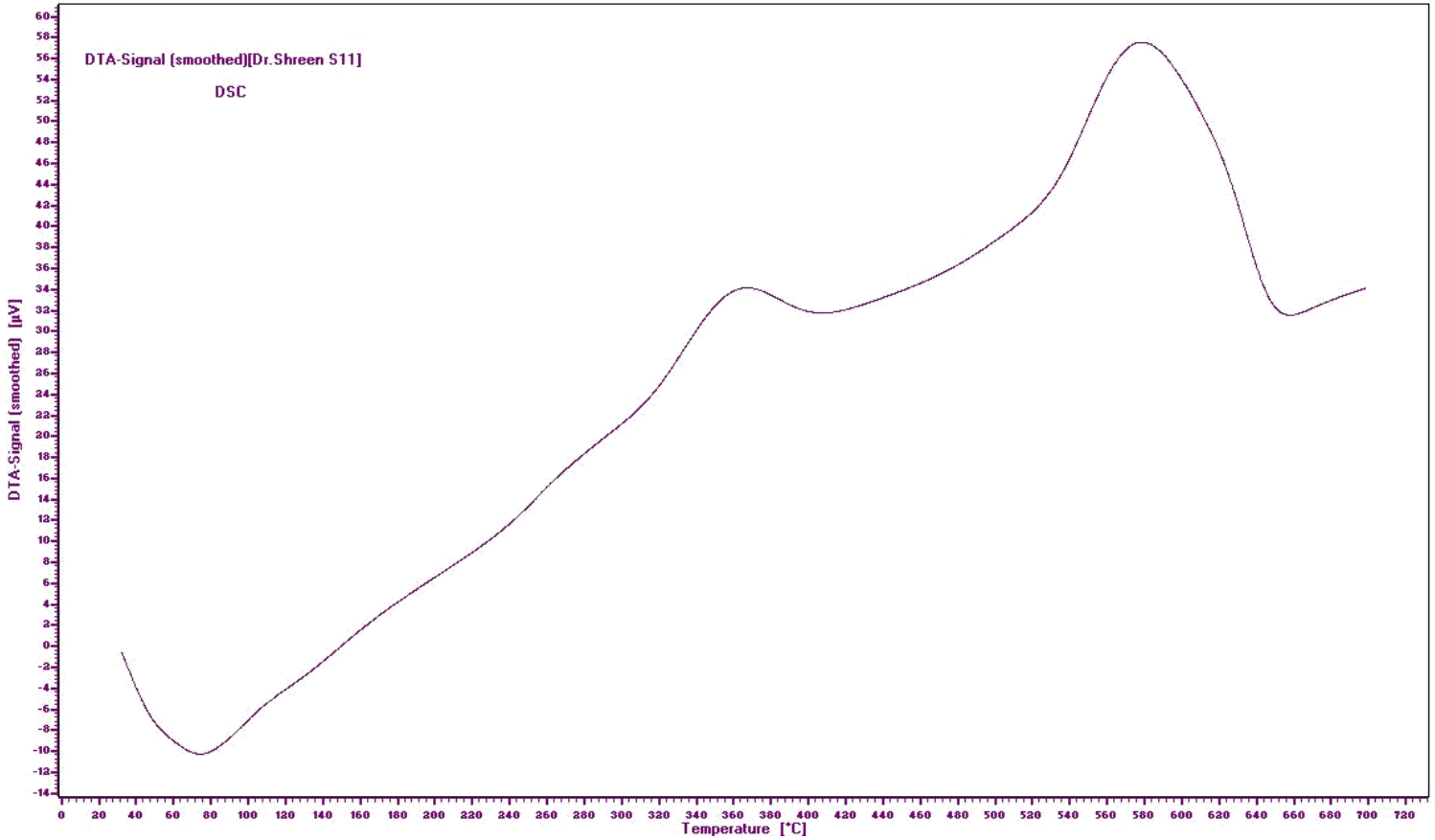


**Figure 87**: DSC of poly[2-(4-morpholino-6-(2-oxo-2-(piperazin-1-yl)ethylthio)-1,3,5-triazin-2-ylthio)acetic acid] **38**.

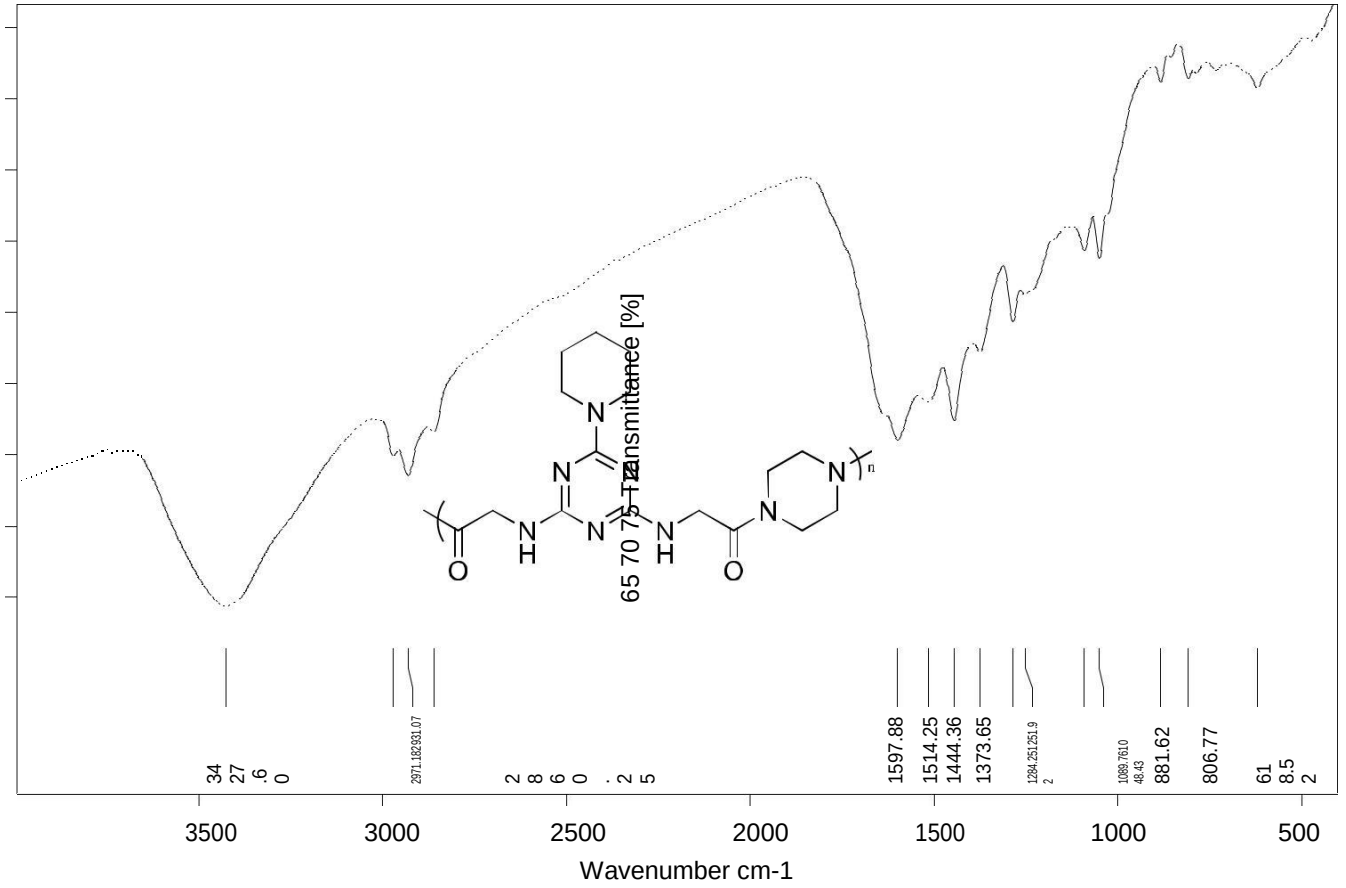


**Figure 88**: IR (KBr) of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **39**.

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**Page 1/1**

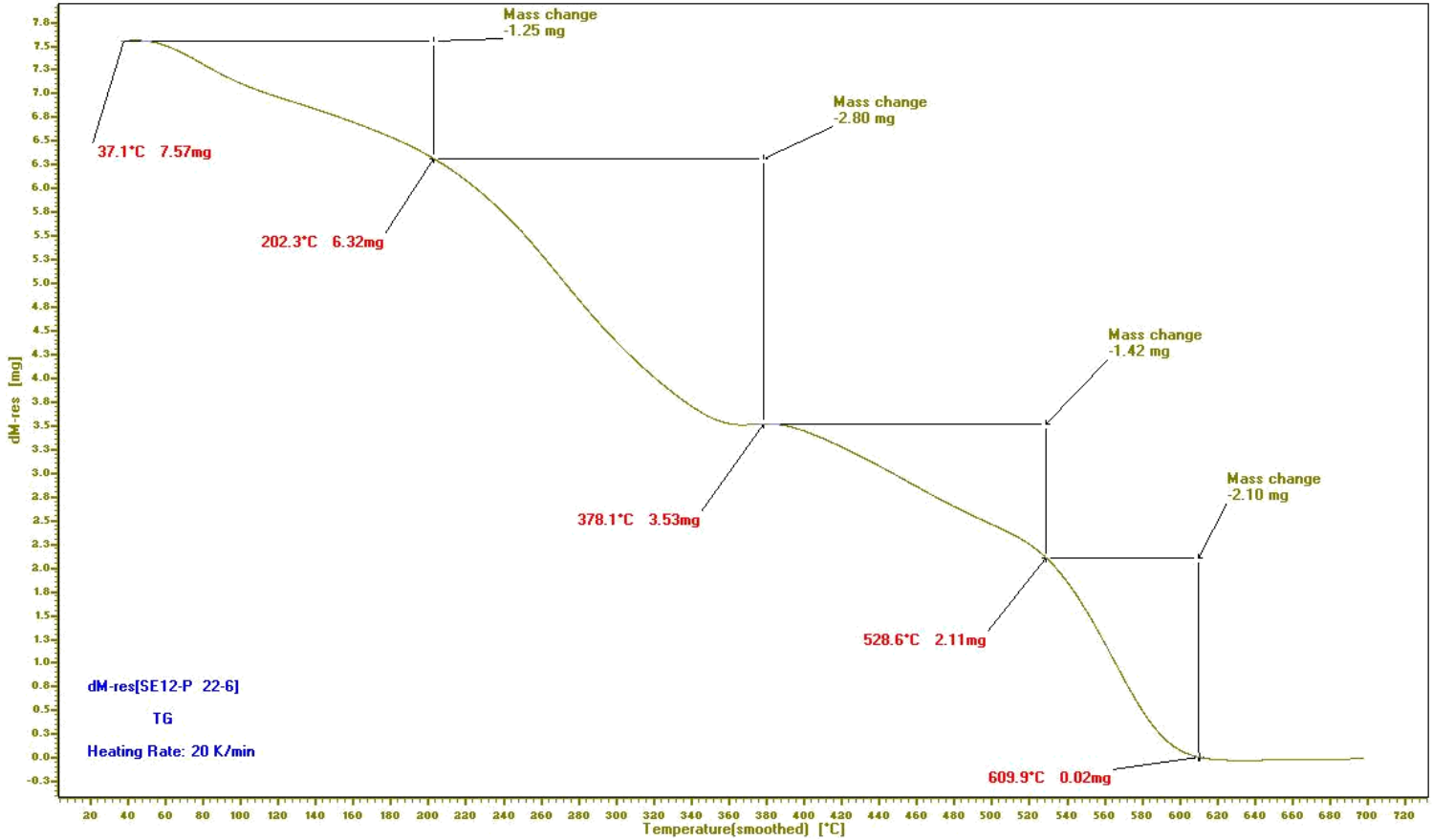


**Figure 89**: TGA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **39**.

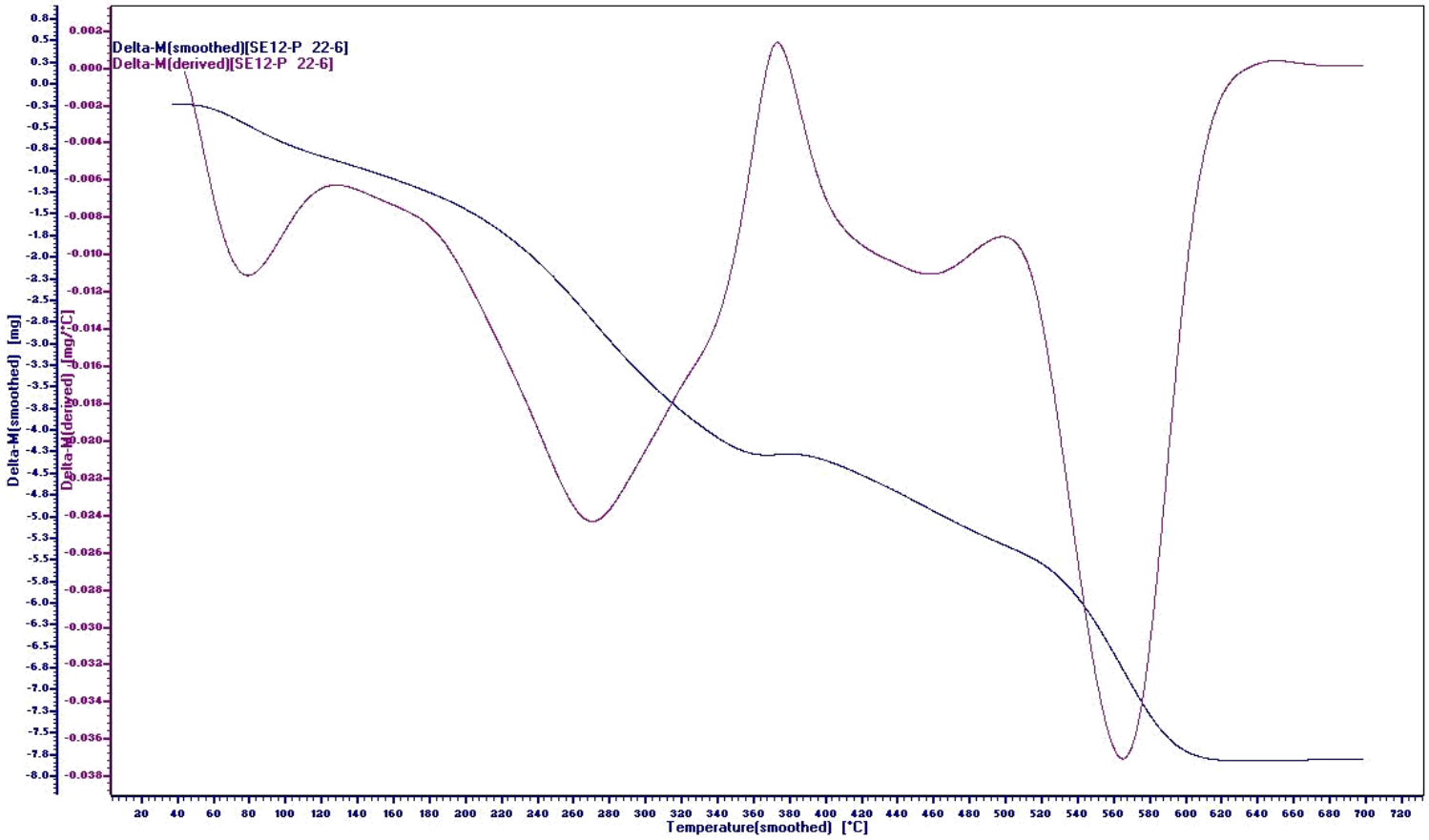


**Figure 90**: TGA/DTG of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **39**.

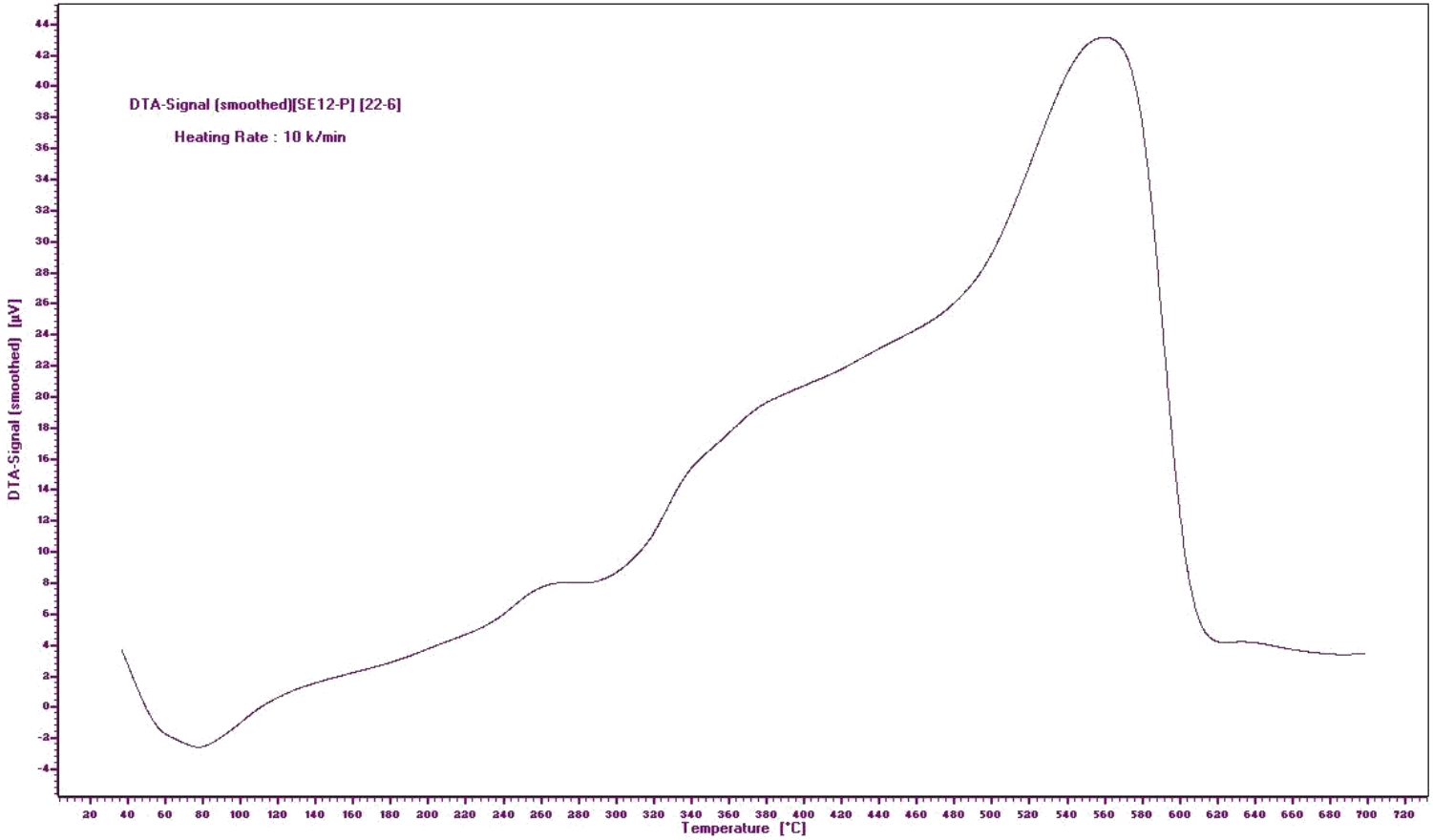


**Figure 91**: DTA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **39**.

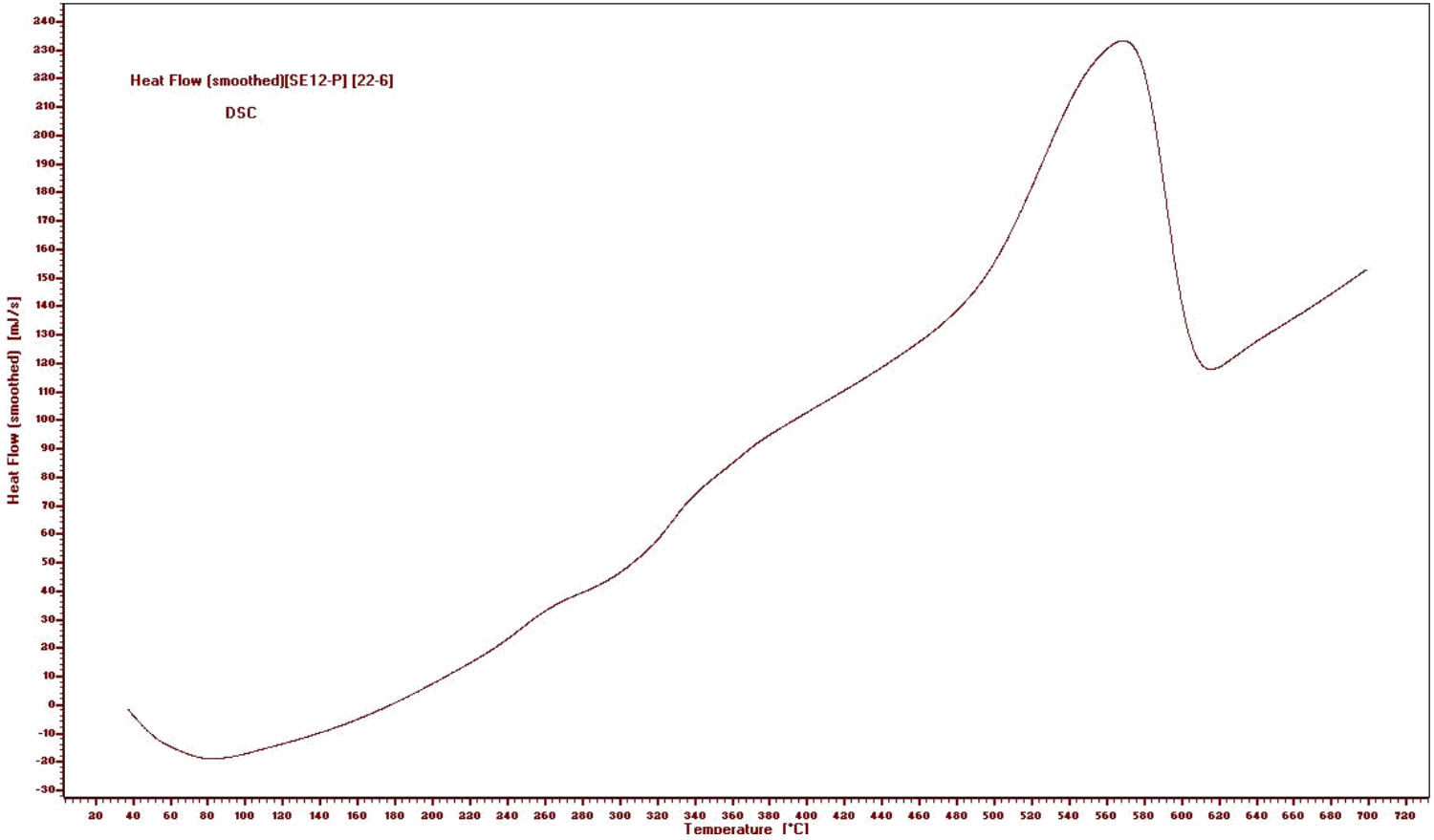


**Figure 92**: DSC of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **39**.

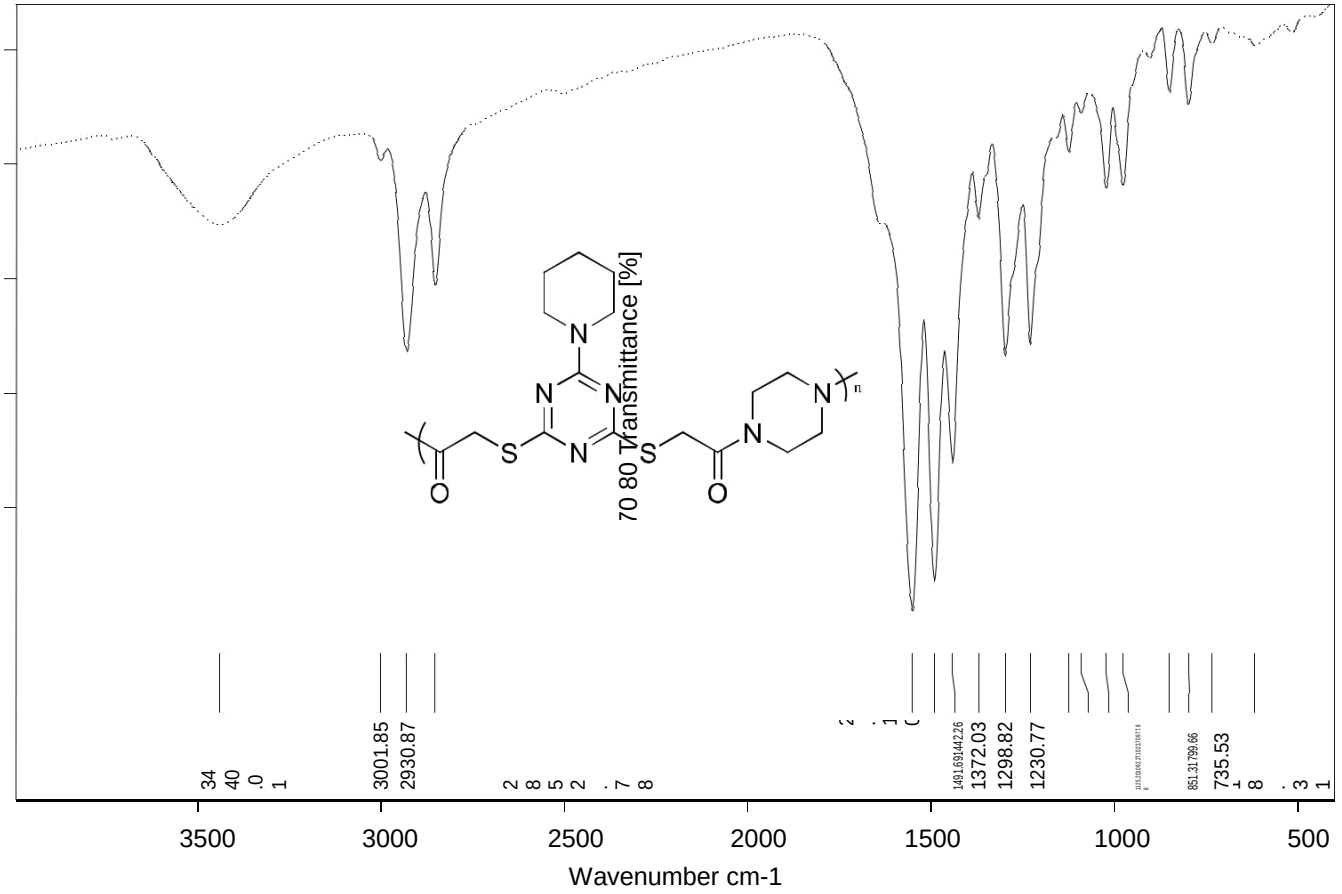


**Figure 93**: IR (KBr) of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **40**.

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**Page 1/1**

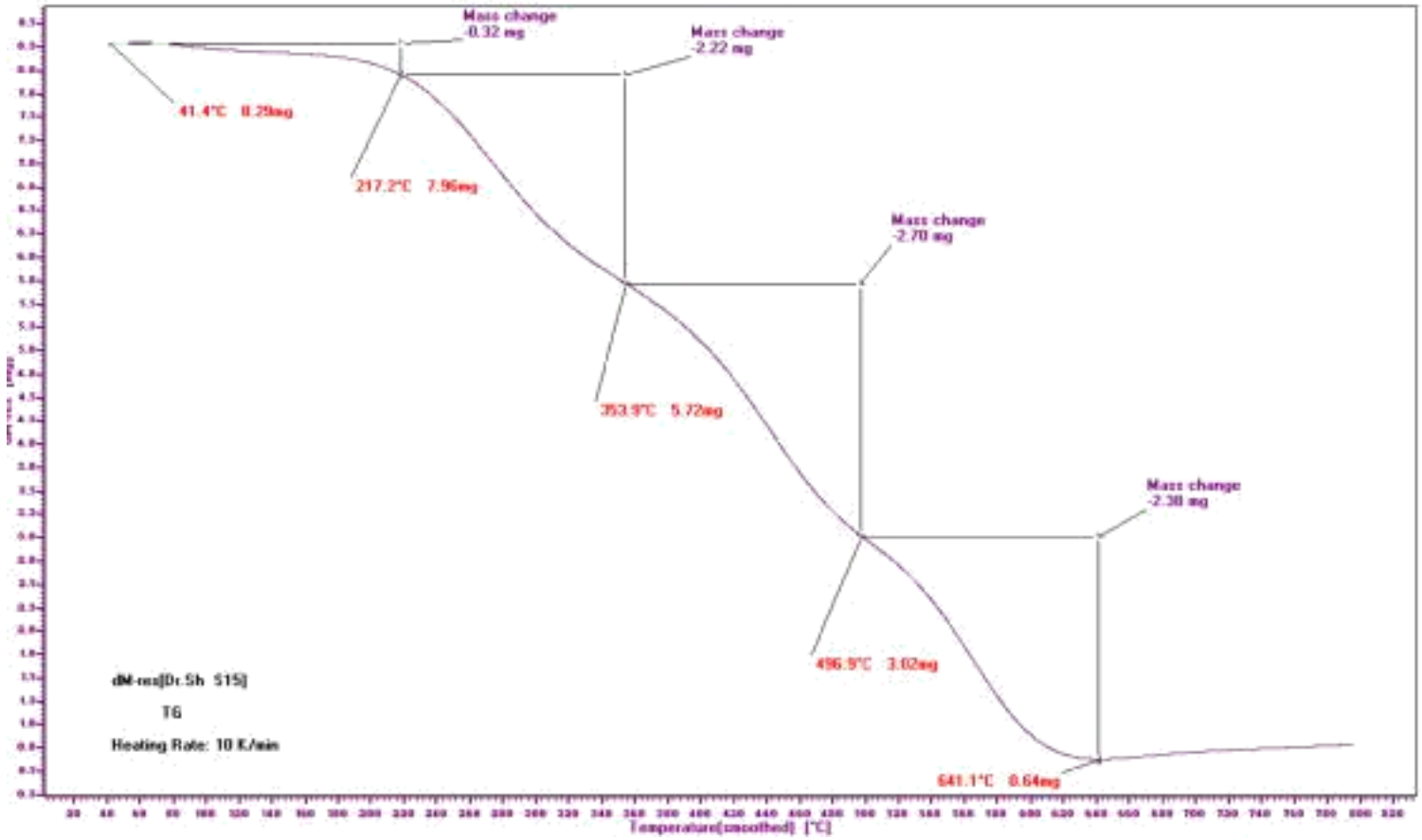


**Figure 94**: TGA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **40**.

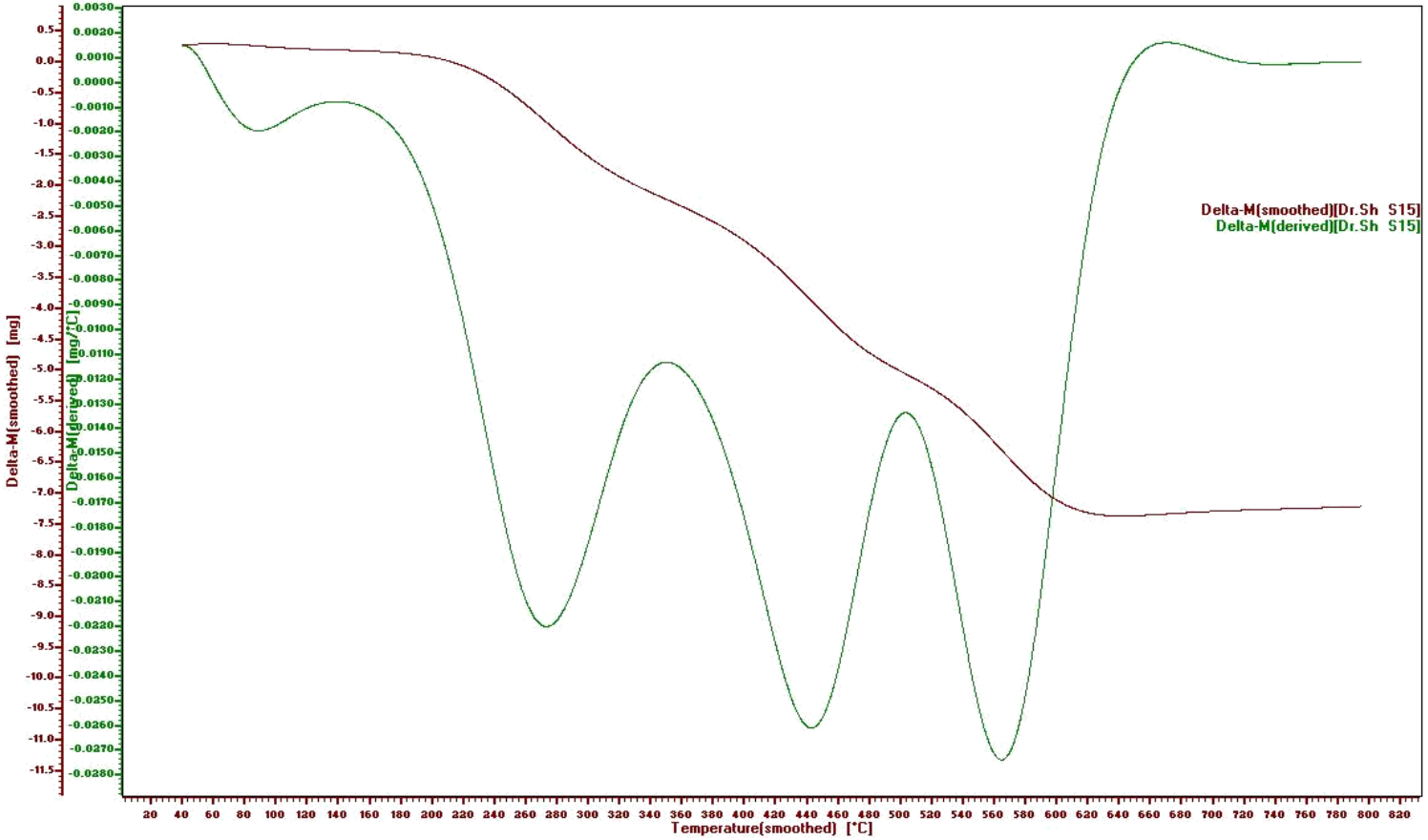


**Figure 95**: TGA/DTG of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **40**.

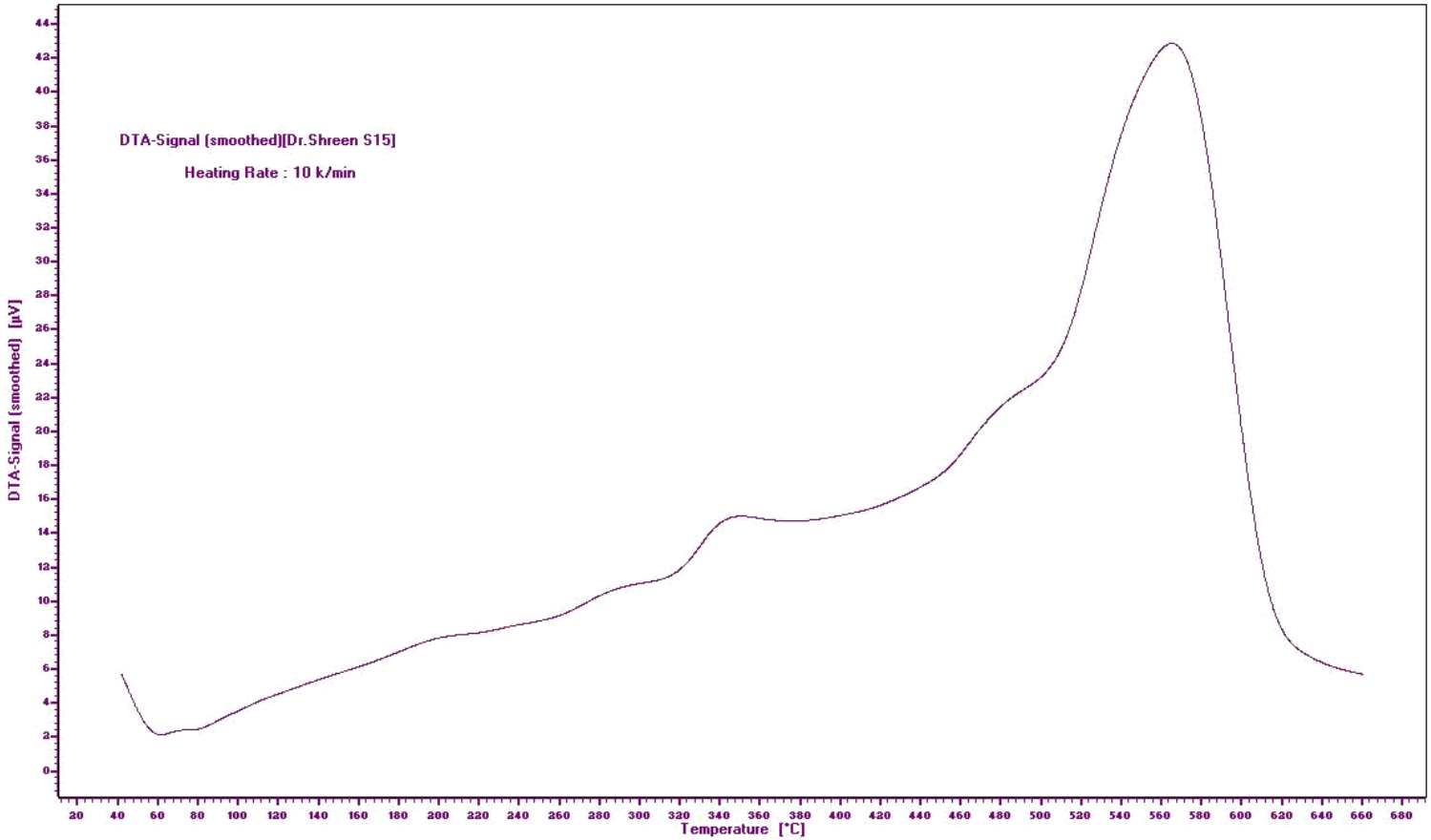


**Figure 96:** DTA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **40**.

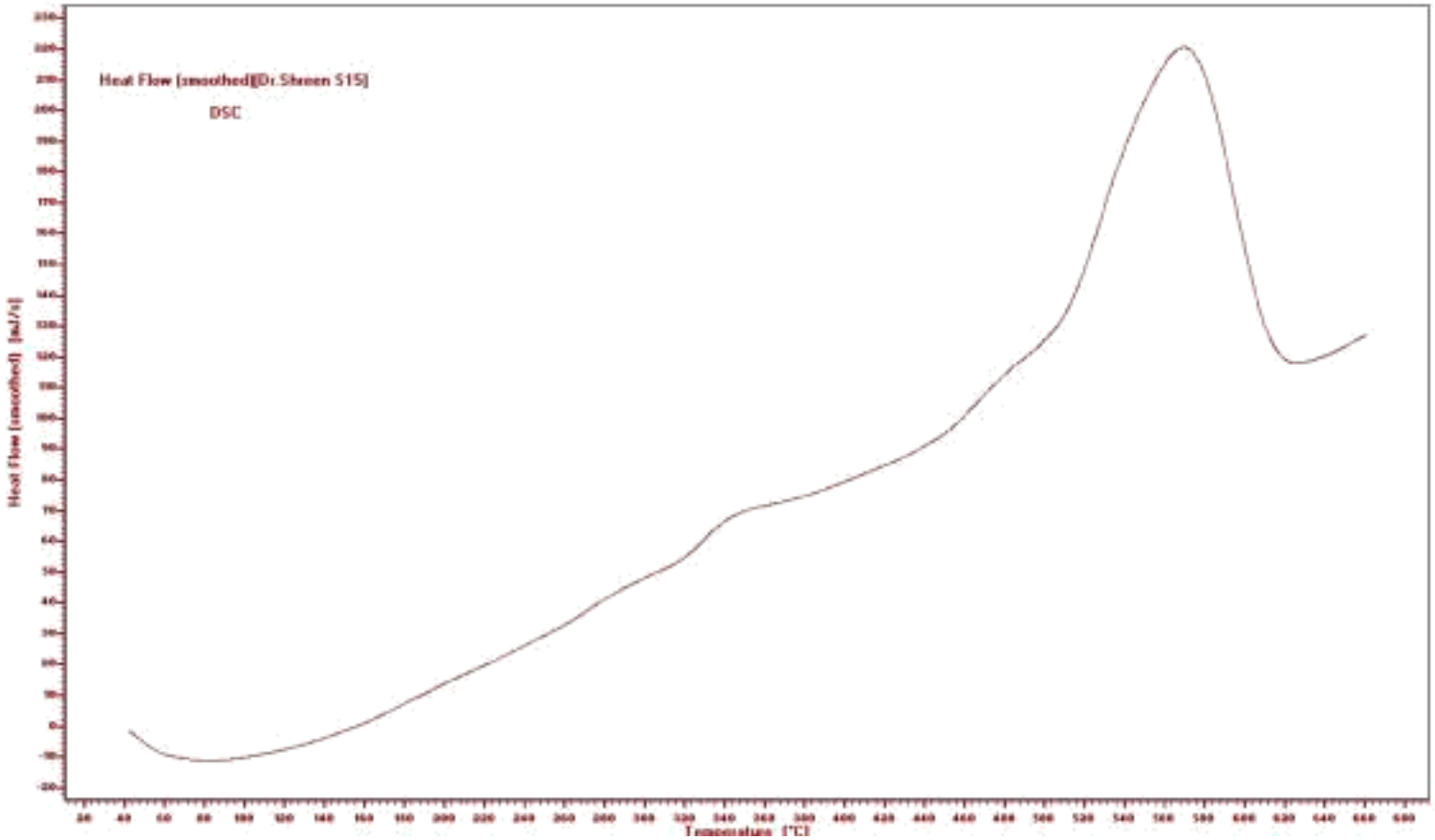


**Figure 97**: DSC of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **40**.

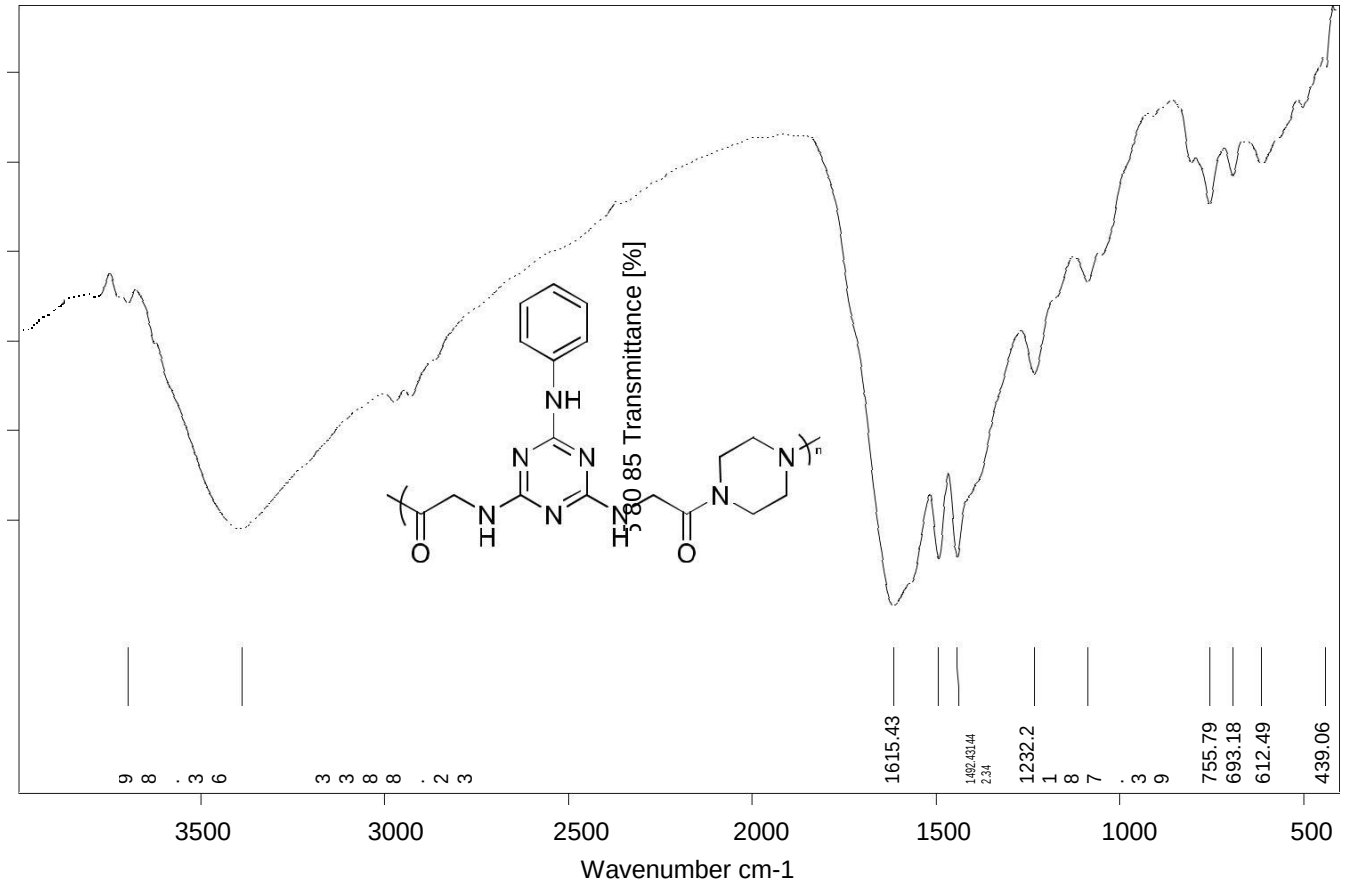


**Figure 98**: IR (KBr) of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **41**.

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**Page 1/1**

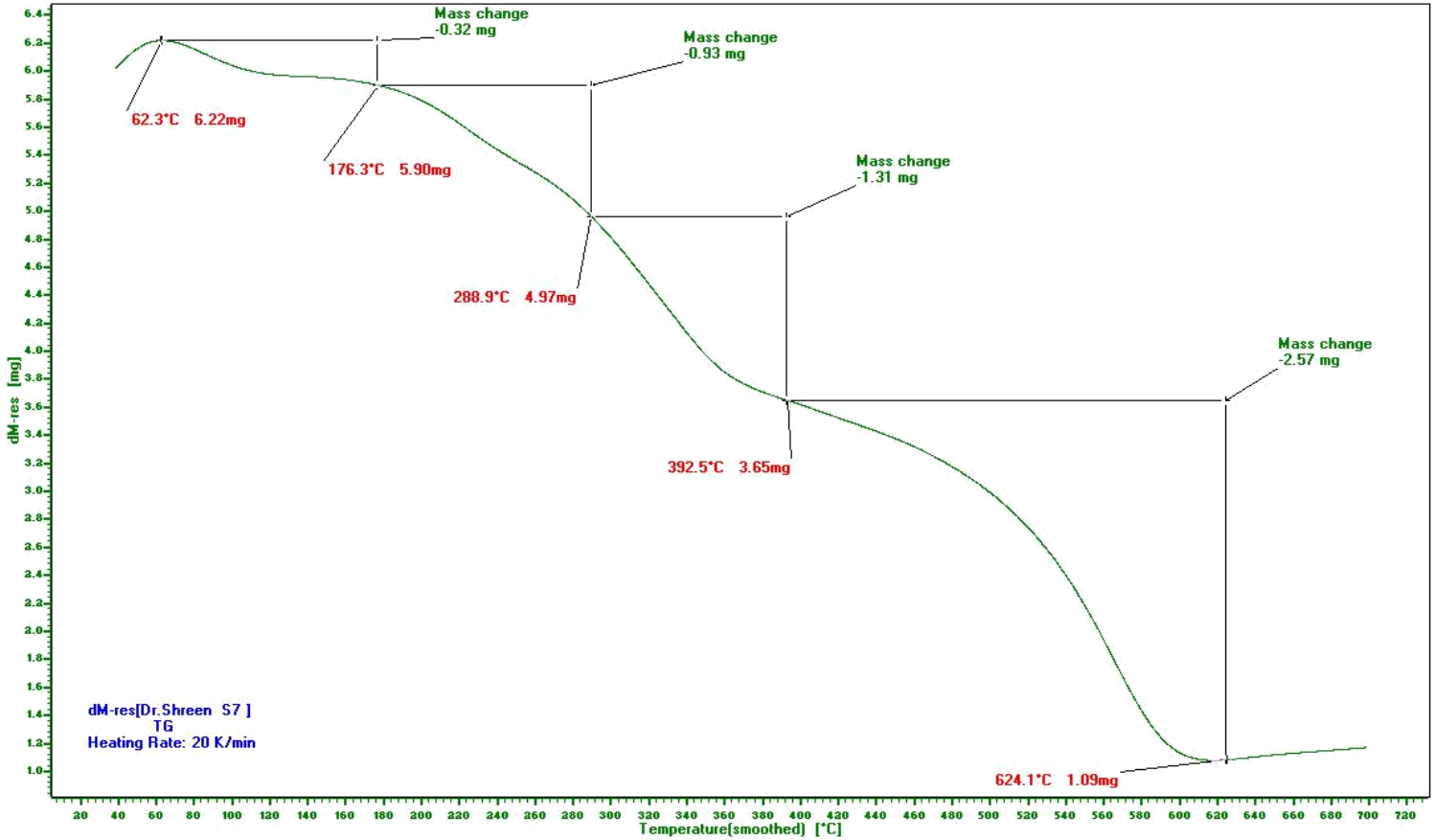


**Figure 99**: TGA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **41**.

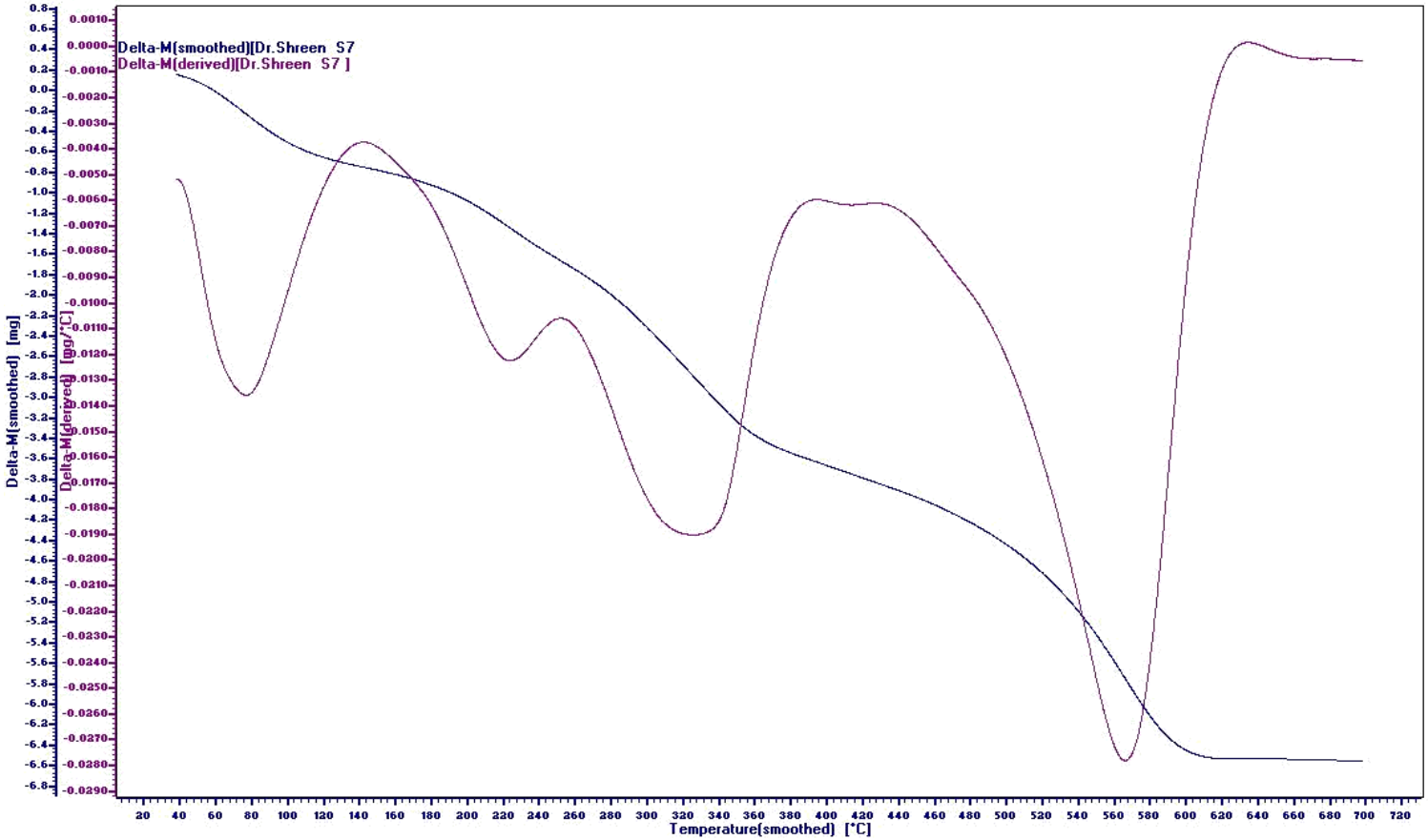


**Figure 100**: TGA/DTG of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **41**.

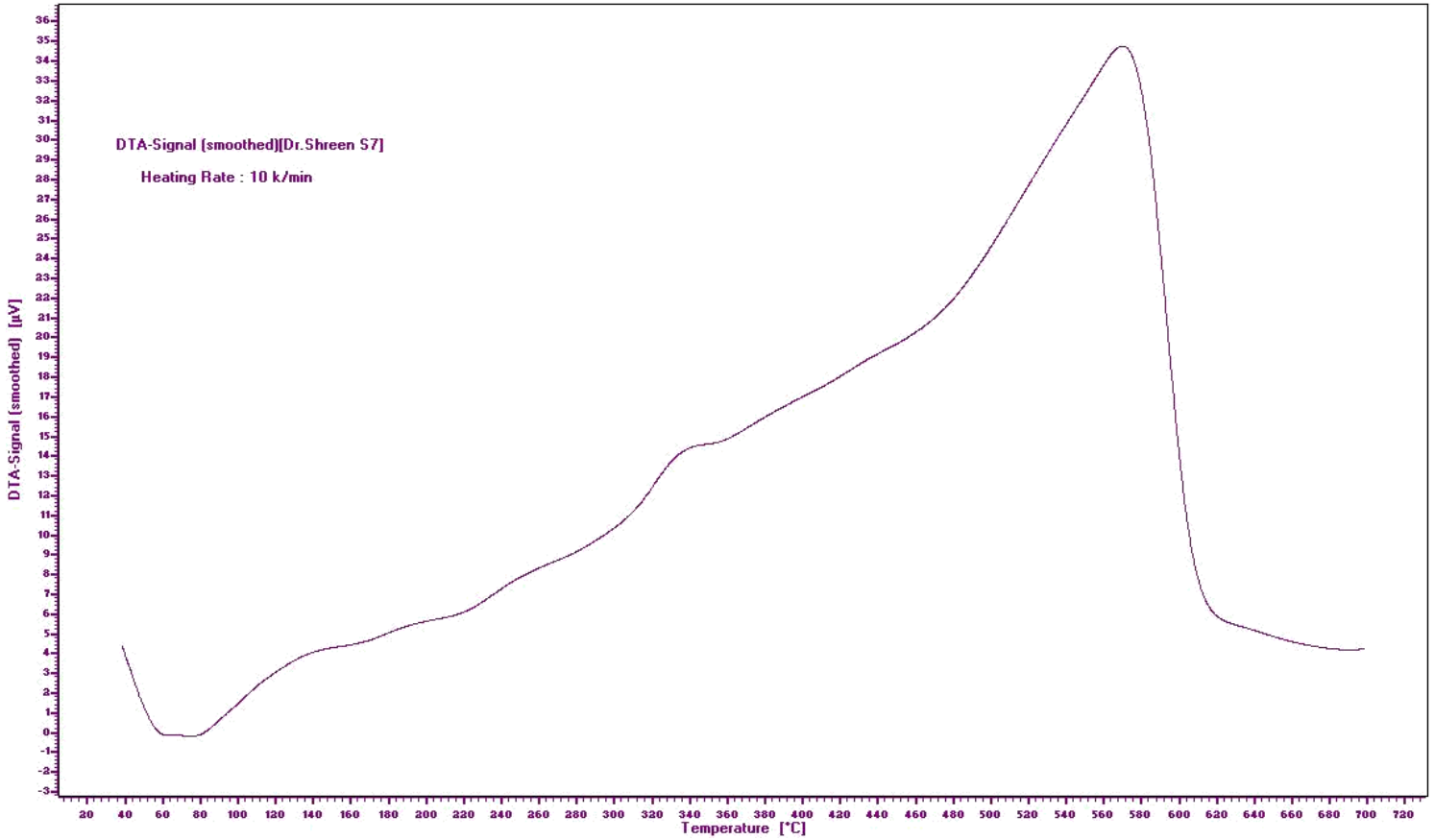


**Figure 101**: DTA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **41**.

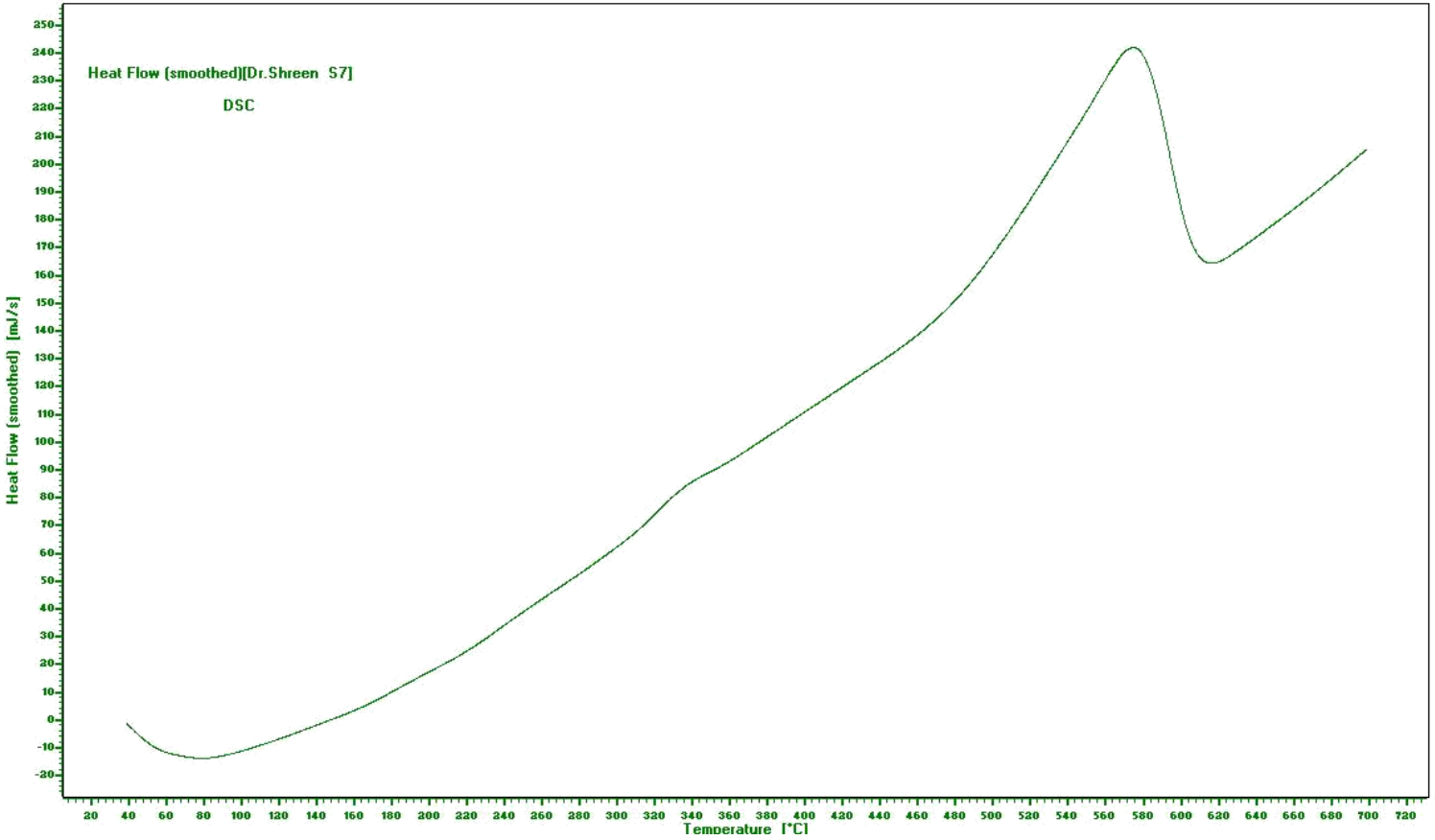


**Figure 102**: DSC of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **41**.

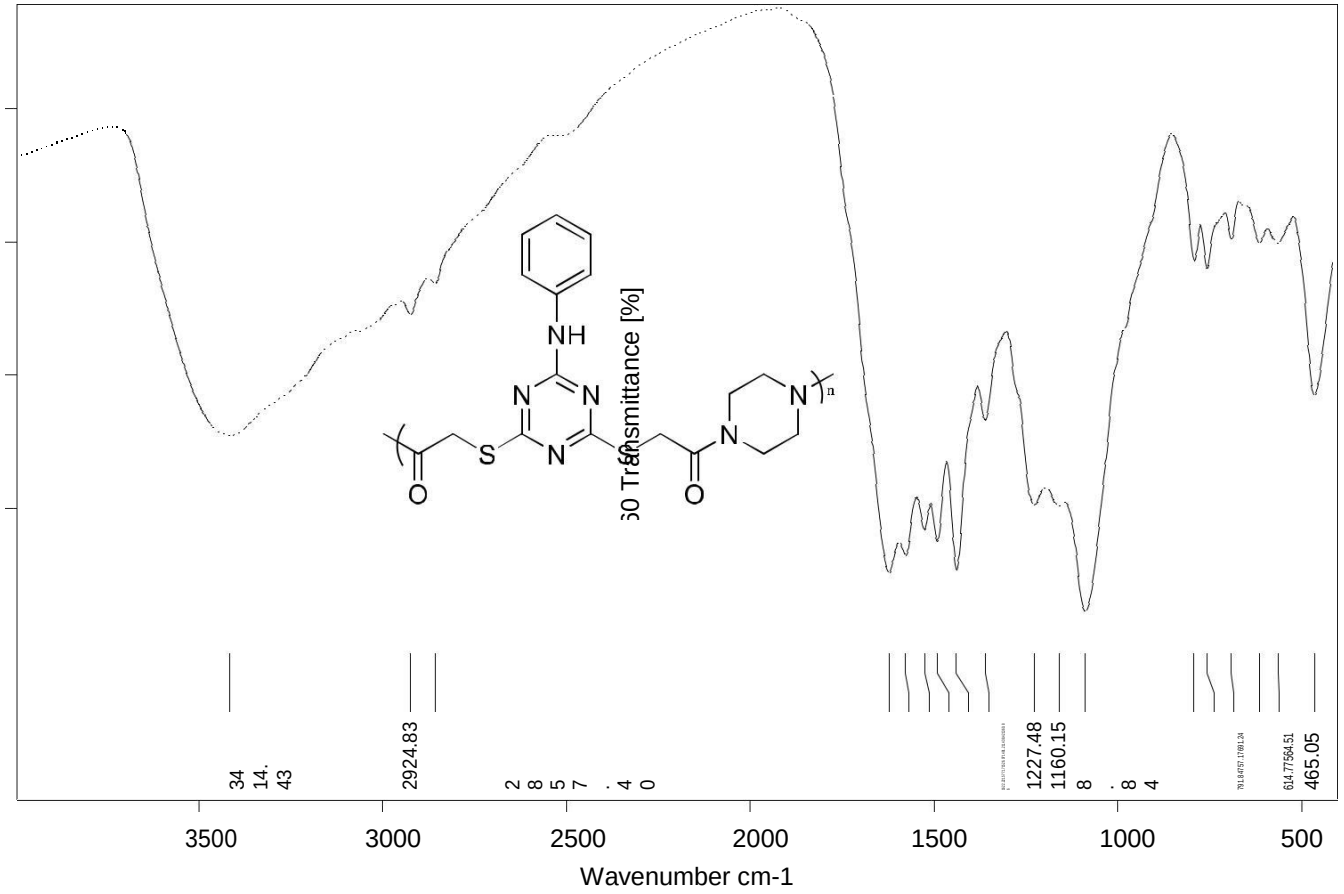


**Figure 103**: IR (KBr) of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **42**.

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**Page 1/1**

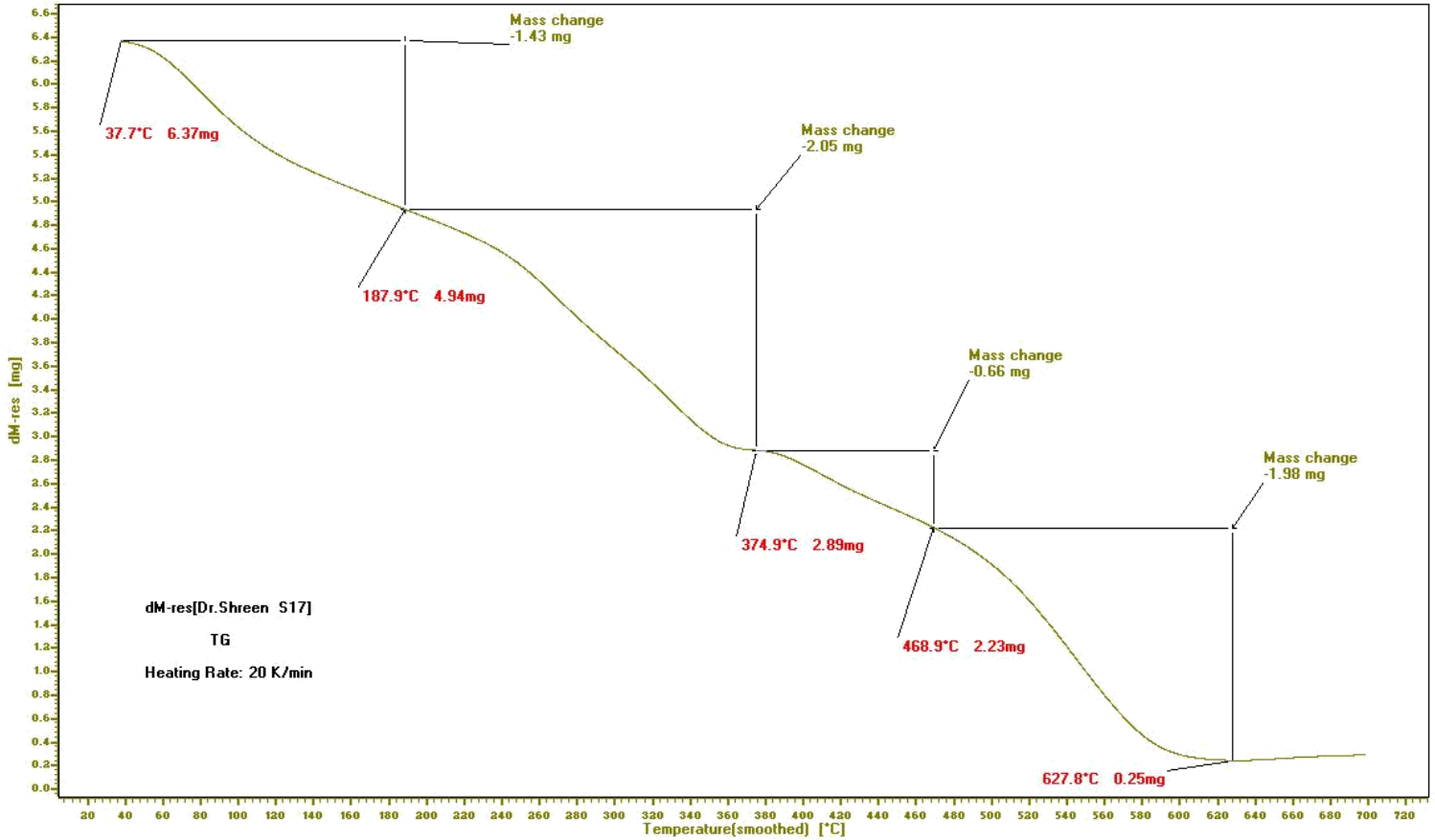


**Figure 104**: TGA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **42.**

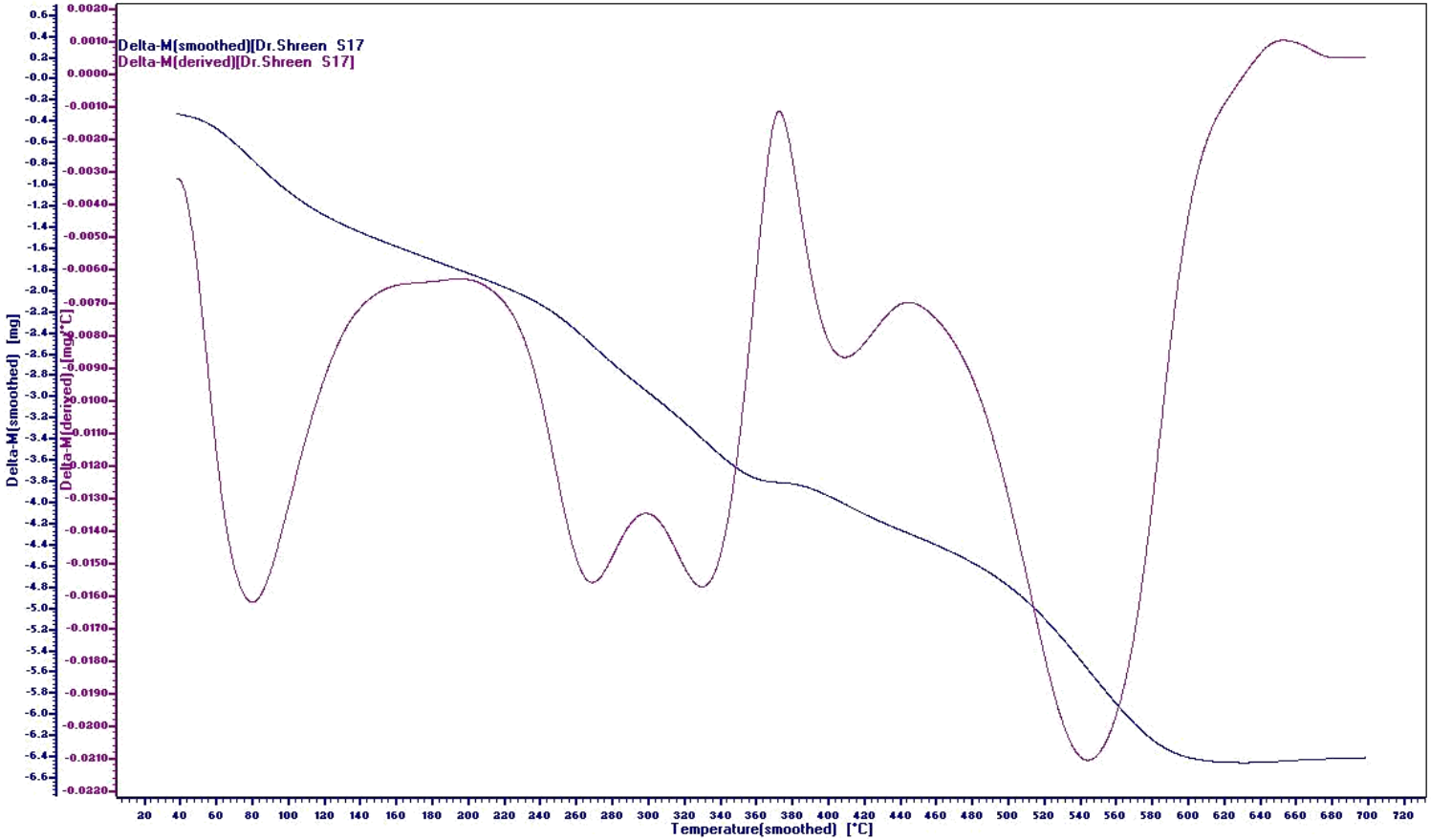


**Figure 105**: TGA/DTG of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **42**.

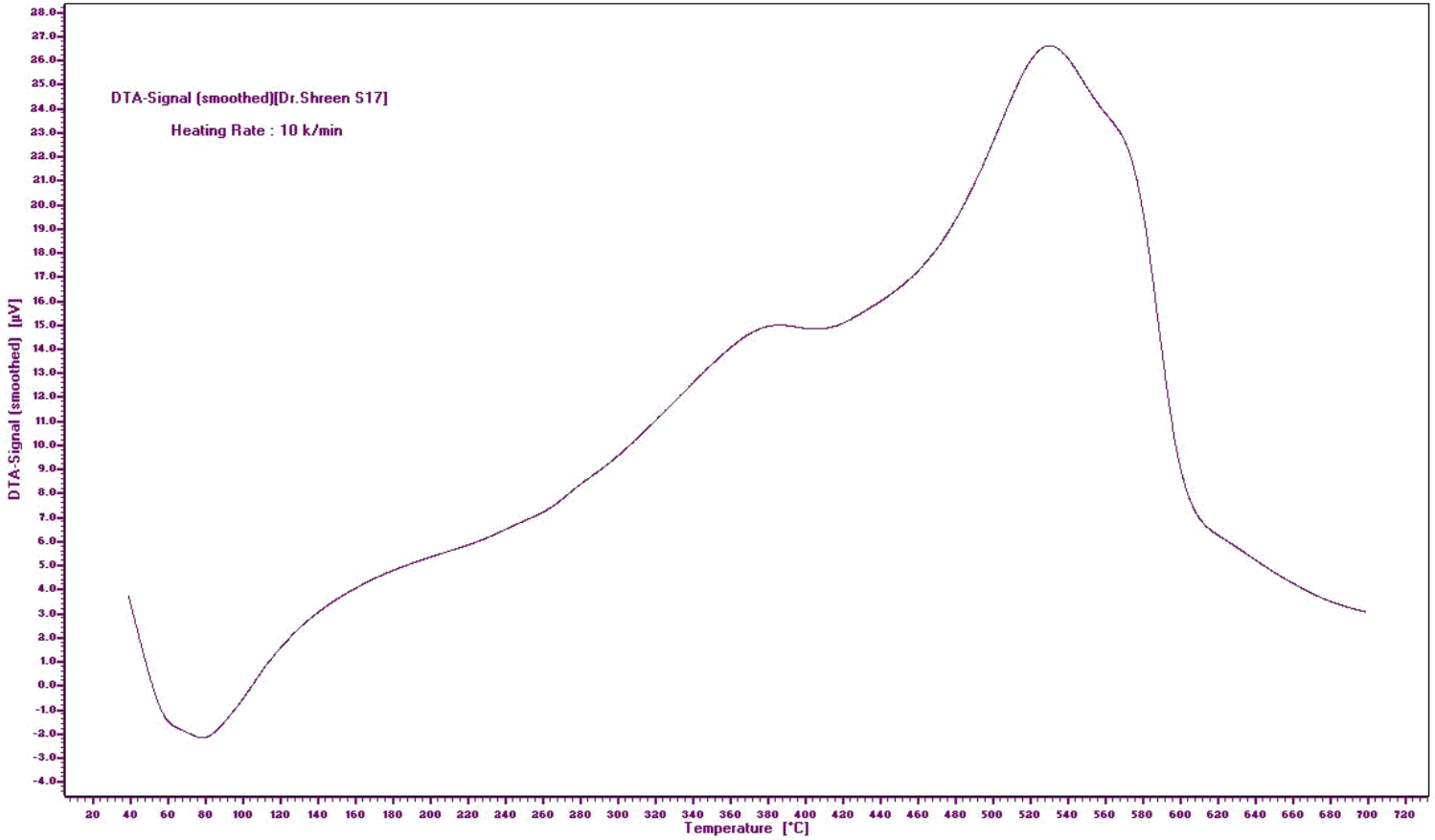


**Figure 106**: DTA of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **42**.

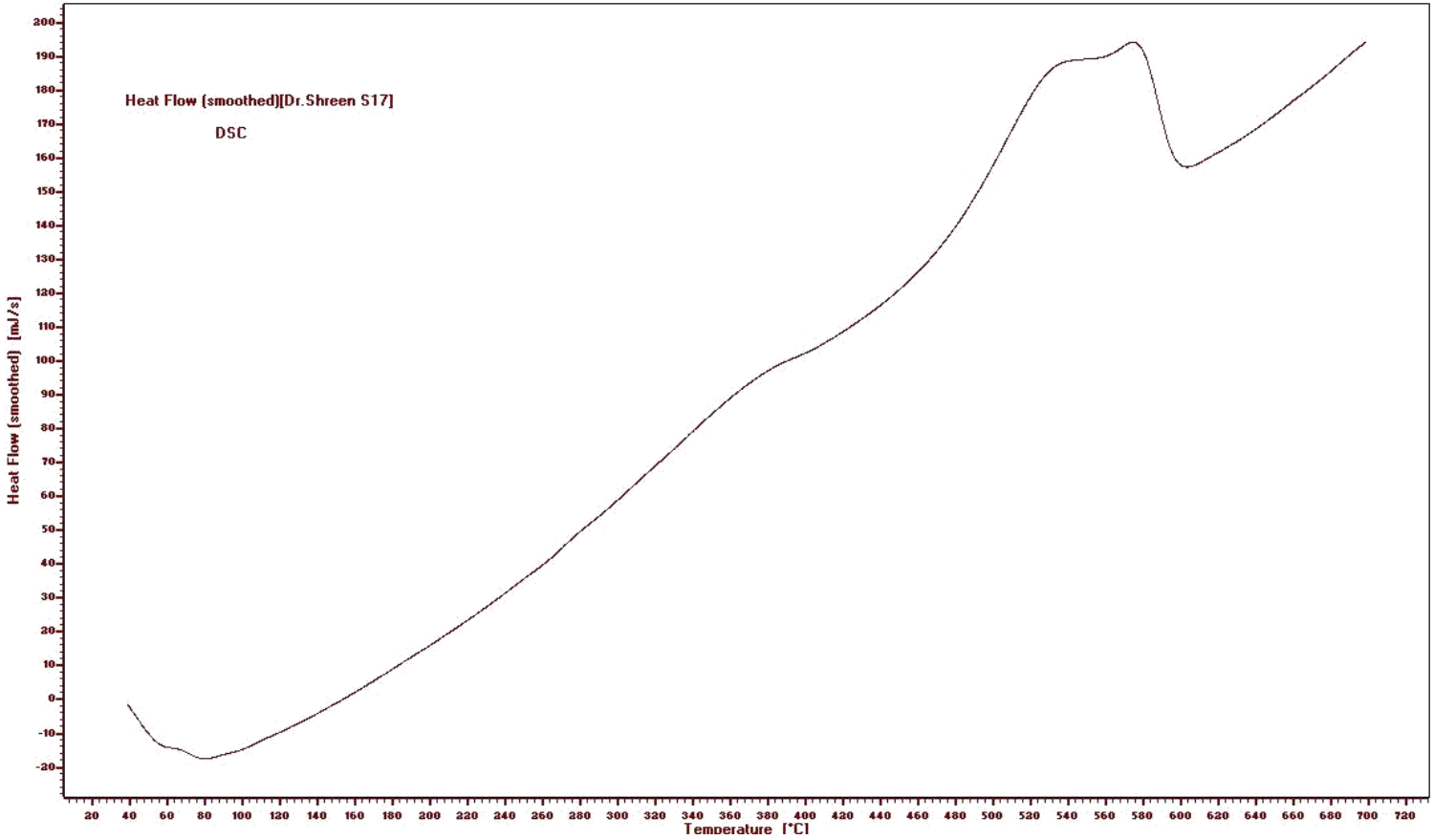


**Figure 107**: DSC of poly[2-(4-(2-oxo-2-(piperazin-1-yl)ethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **42**.

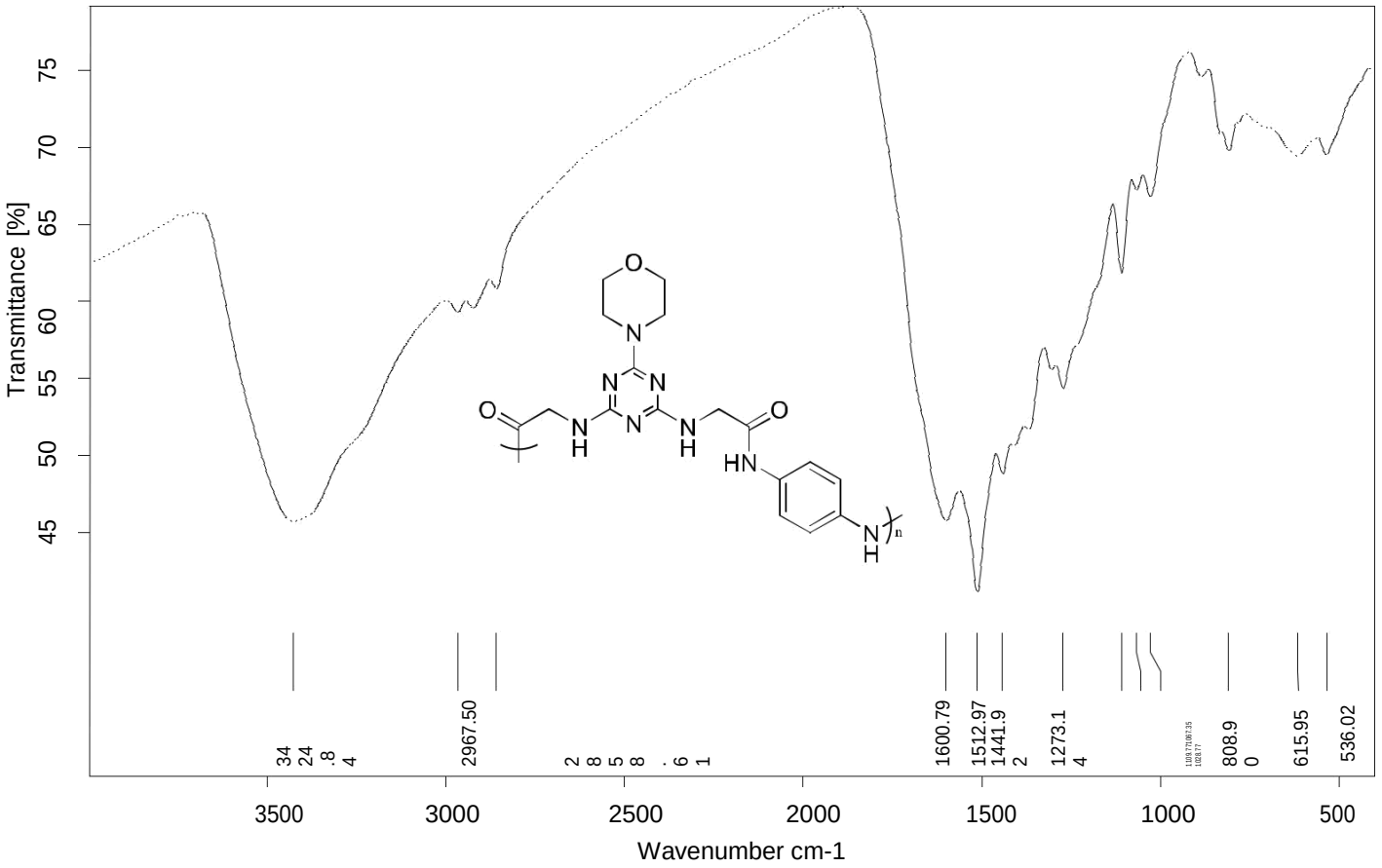


**Figure 108**: IR (KBr) of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **43**.

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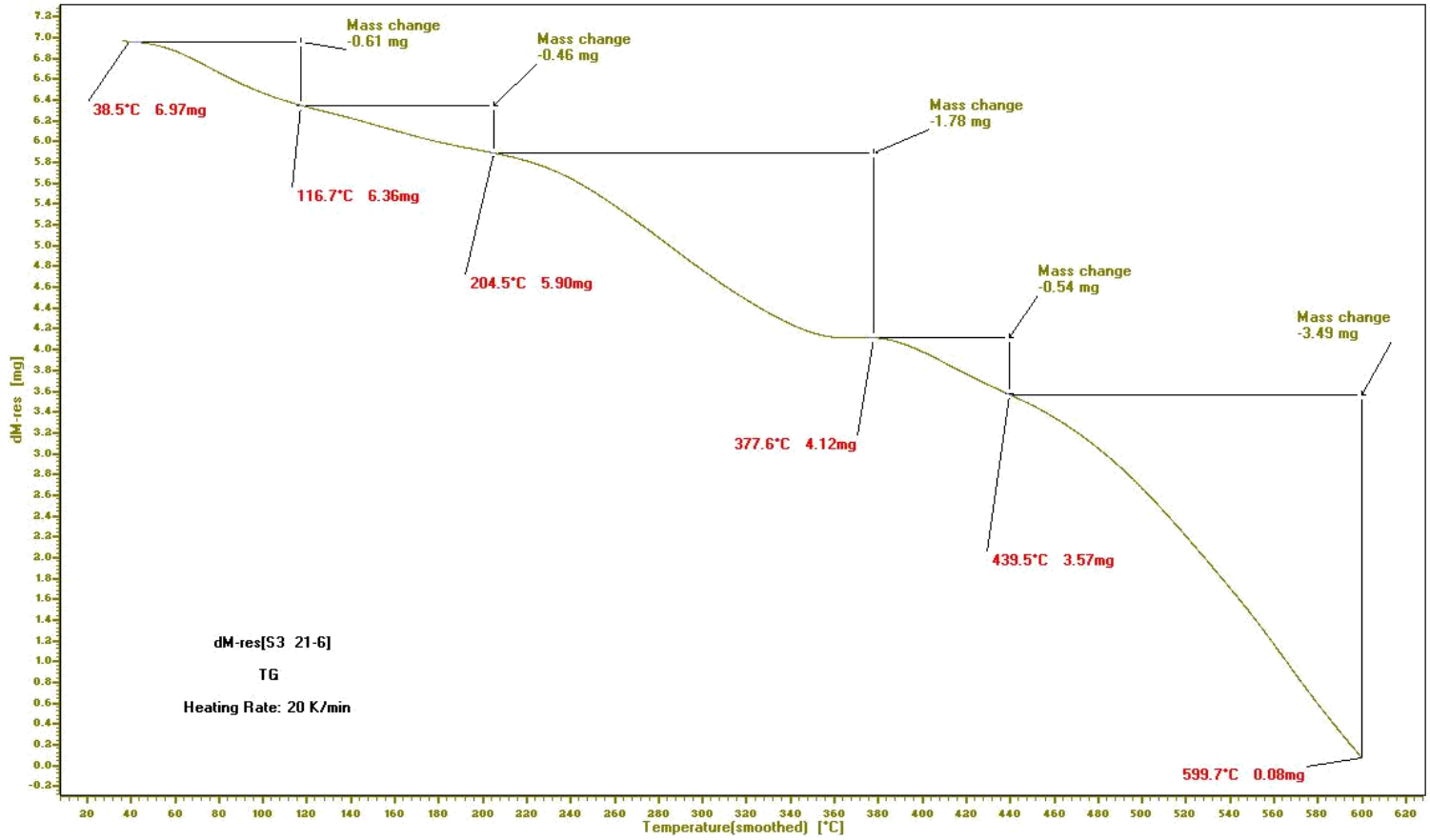


**Figure 109**: TGA of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **43**.

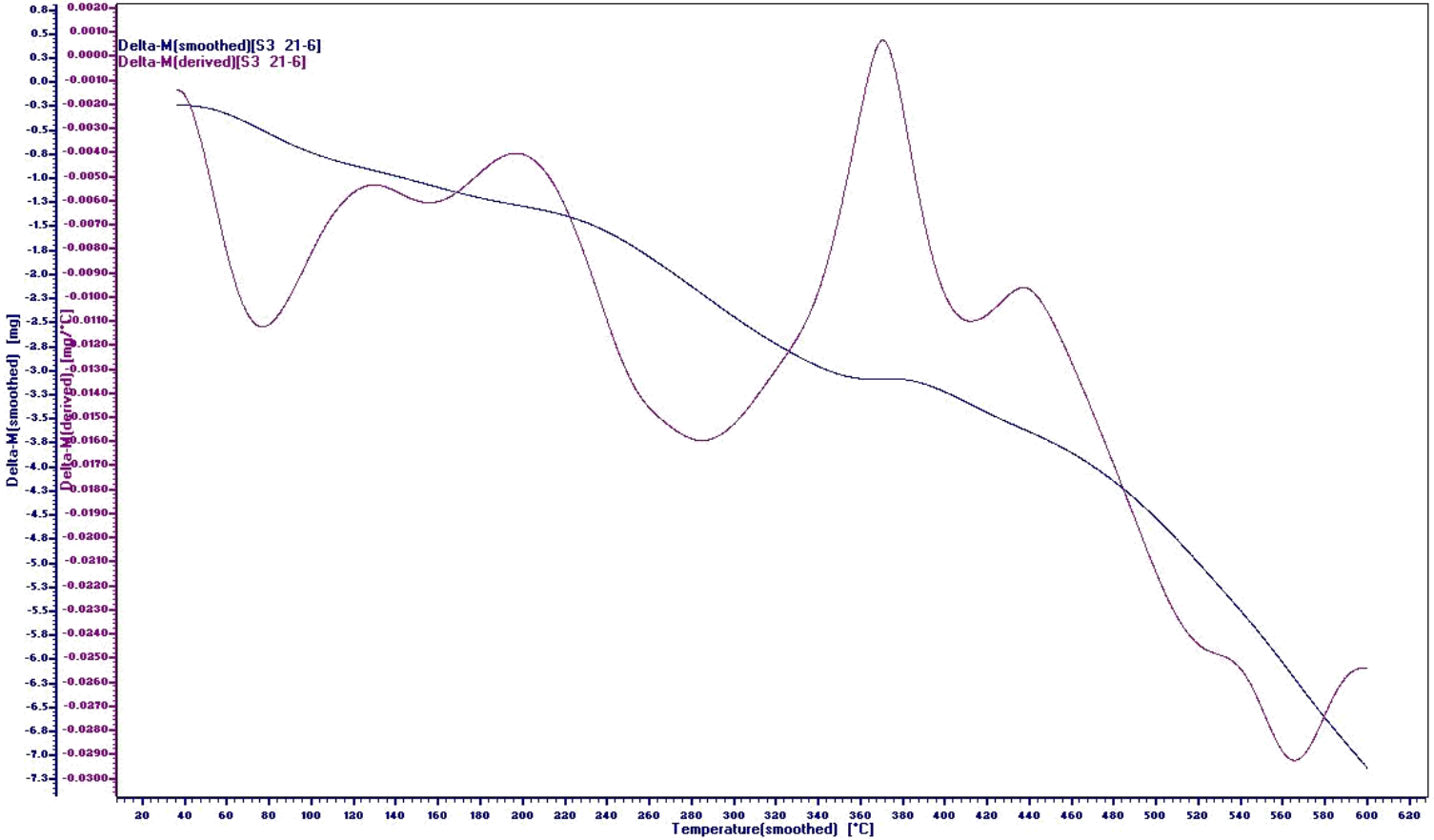


**Figure 110**: TGA/DTG of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **43**.

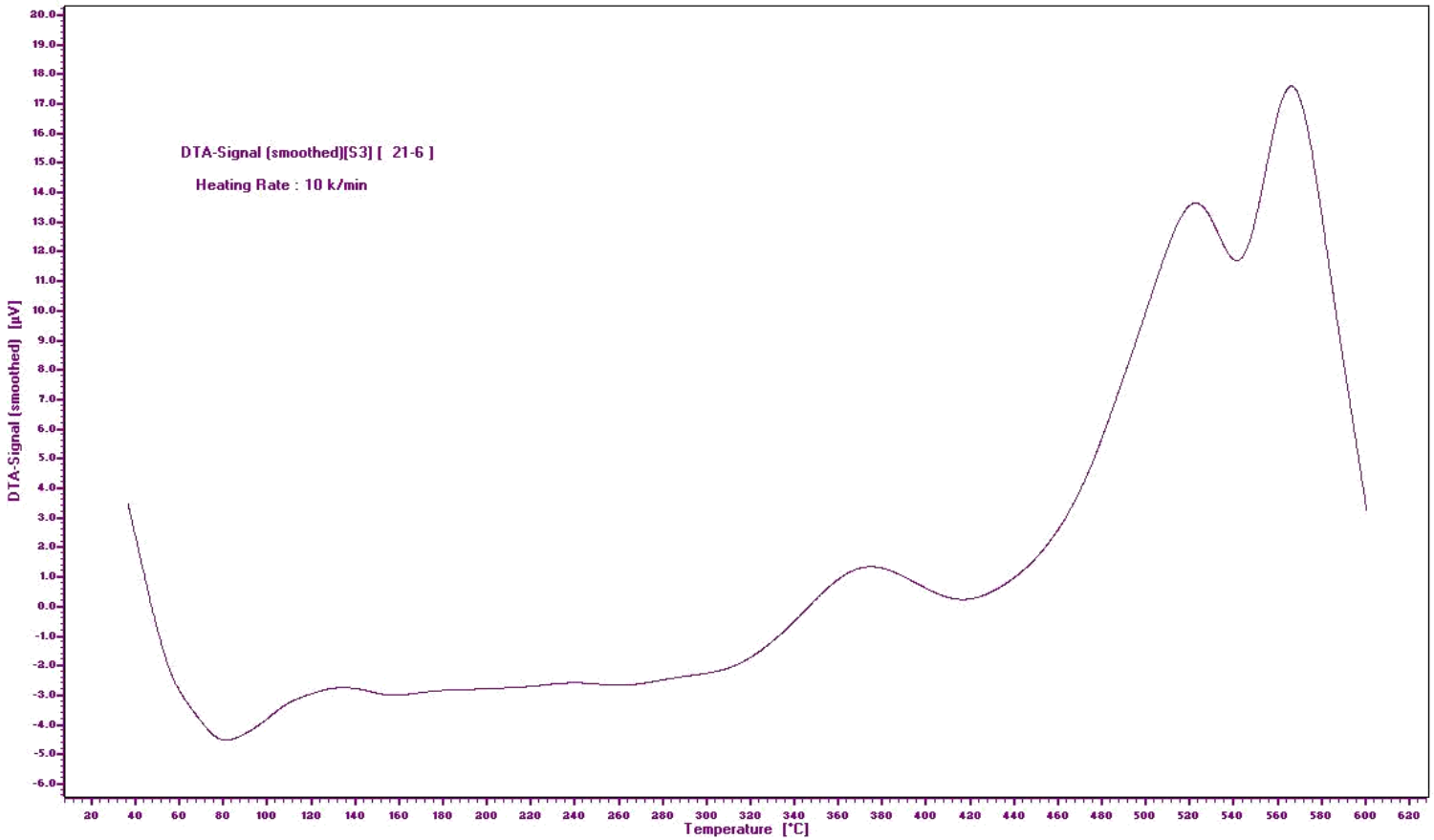


**Figure 111**: DTA of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **43**.

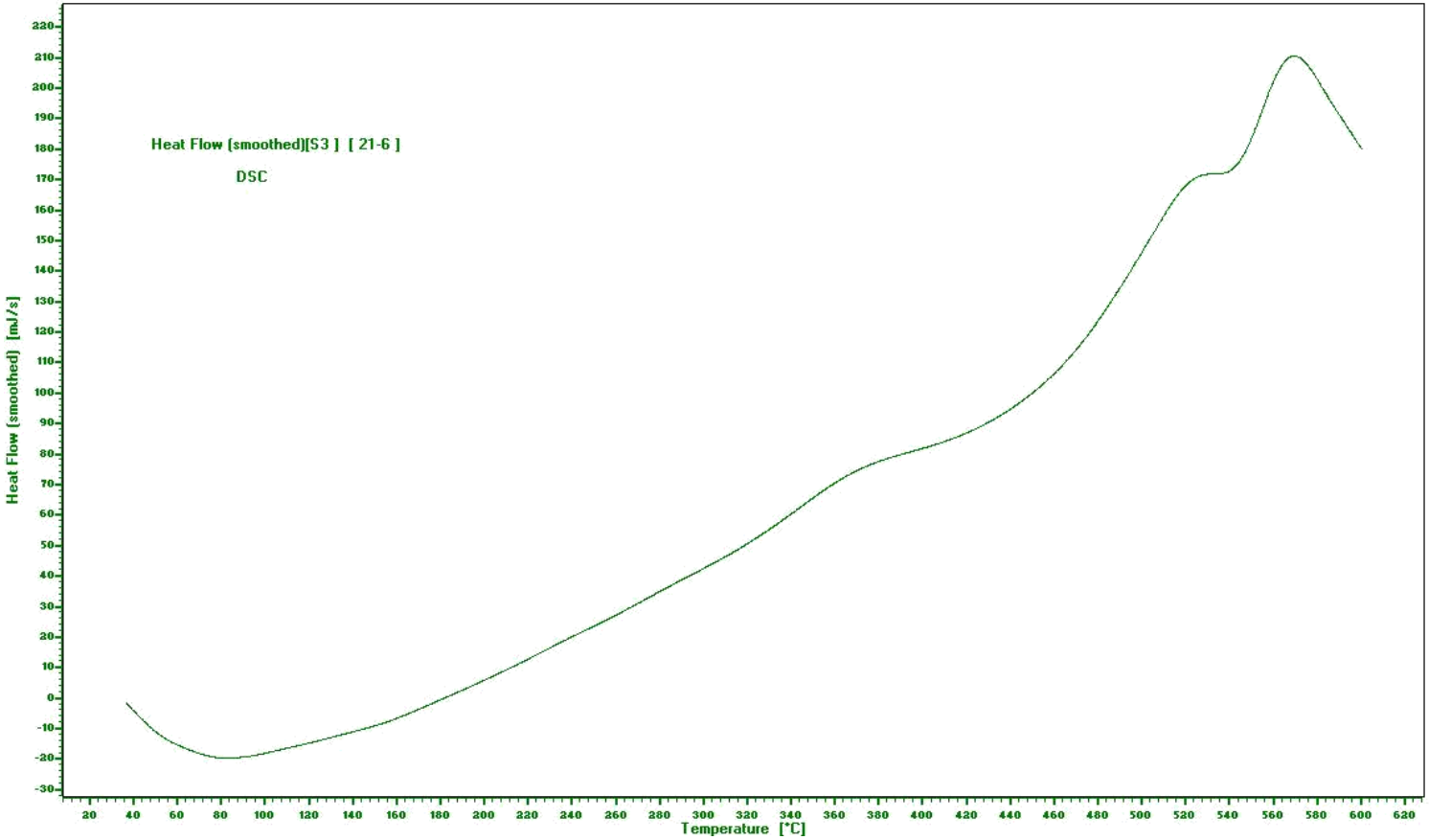


**Figure 112:** DSC of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-morpholino-1,3,5-triazin-2-ylamino)acetic acid] **43**.

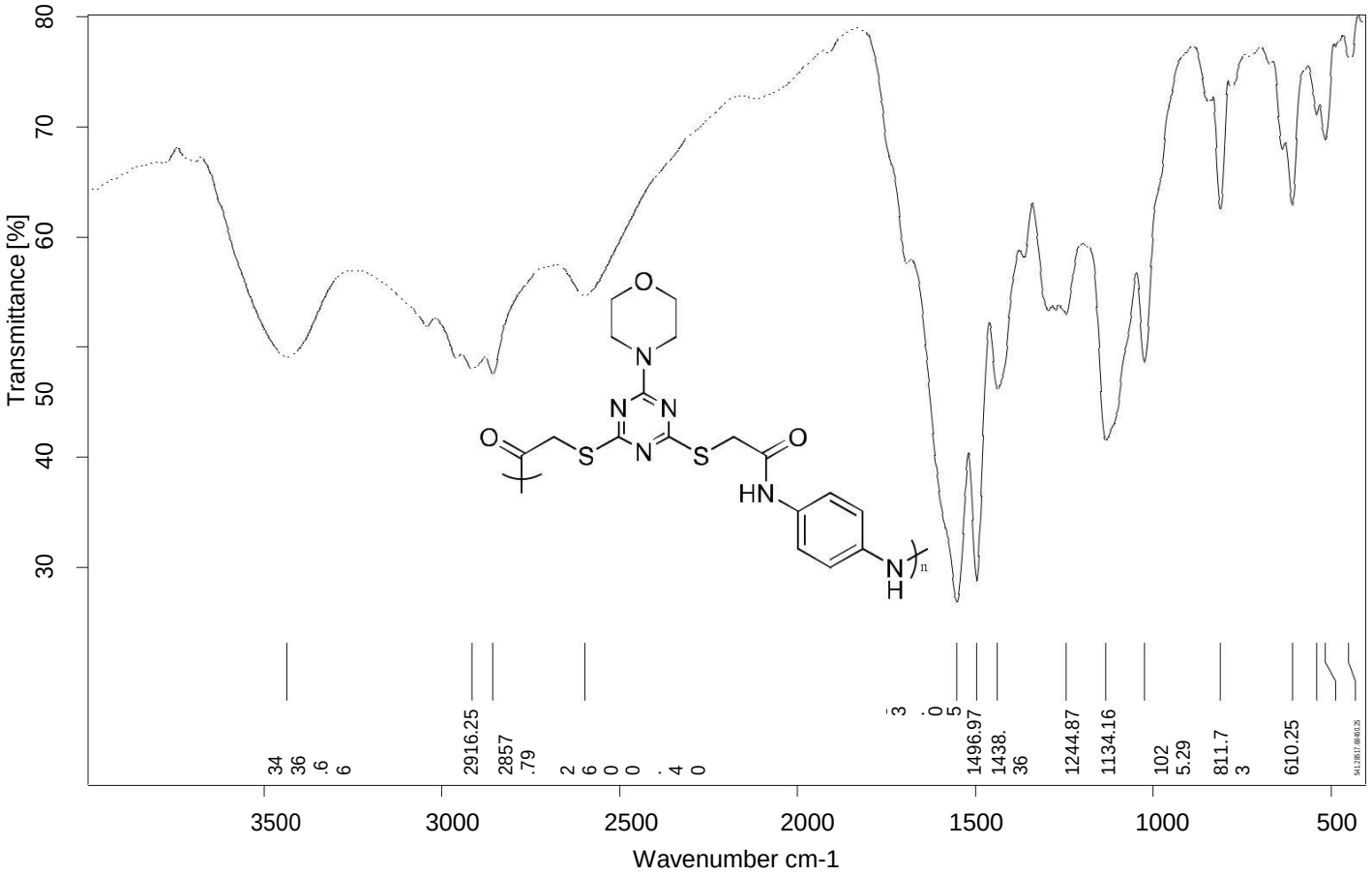


**Figure 113**: IR (KBr) of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **44**.

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**Page 1/1**

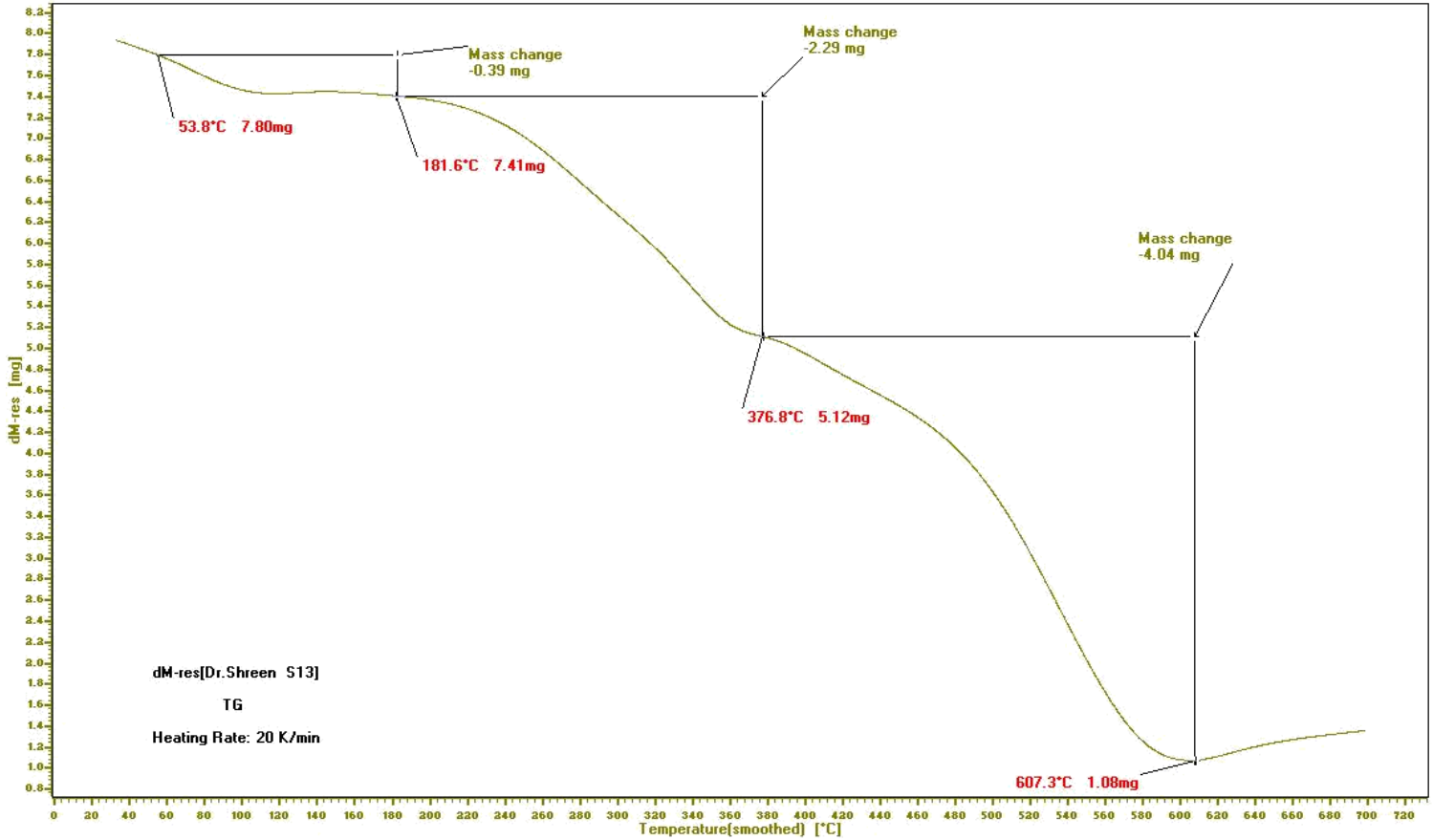


**Figure 114**: TGA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **44**.

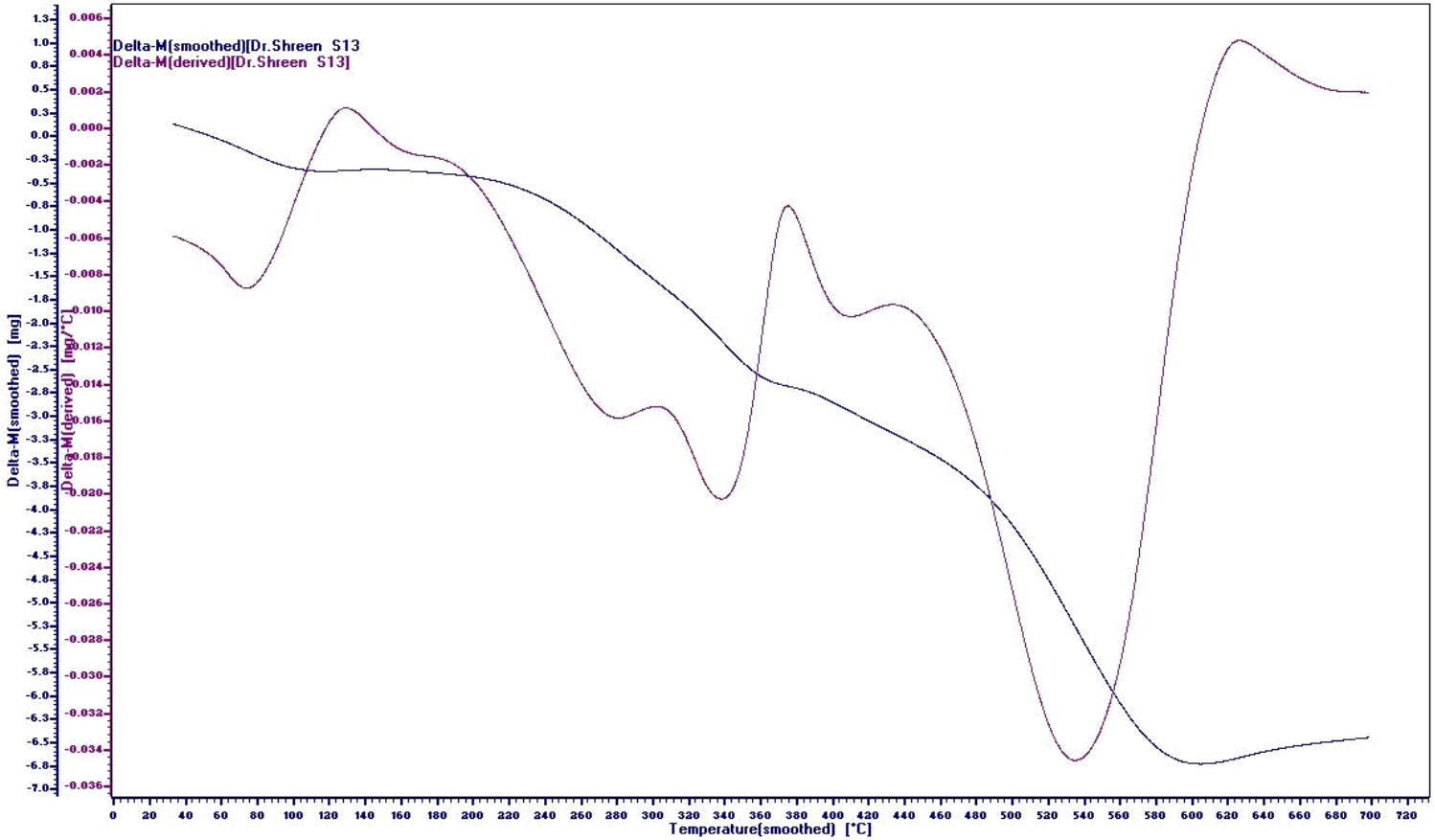


**Figure 115**: TGA/DTG of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **44**.

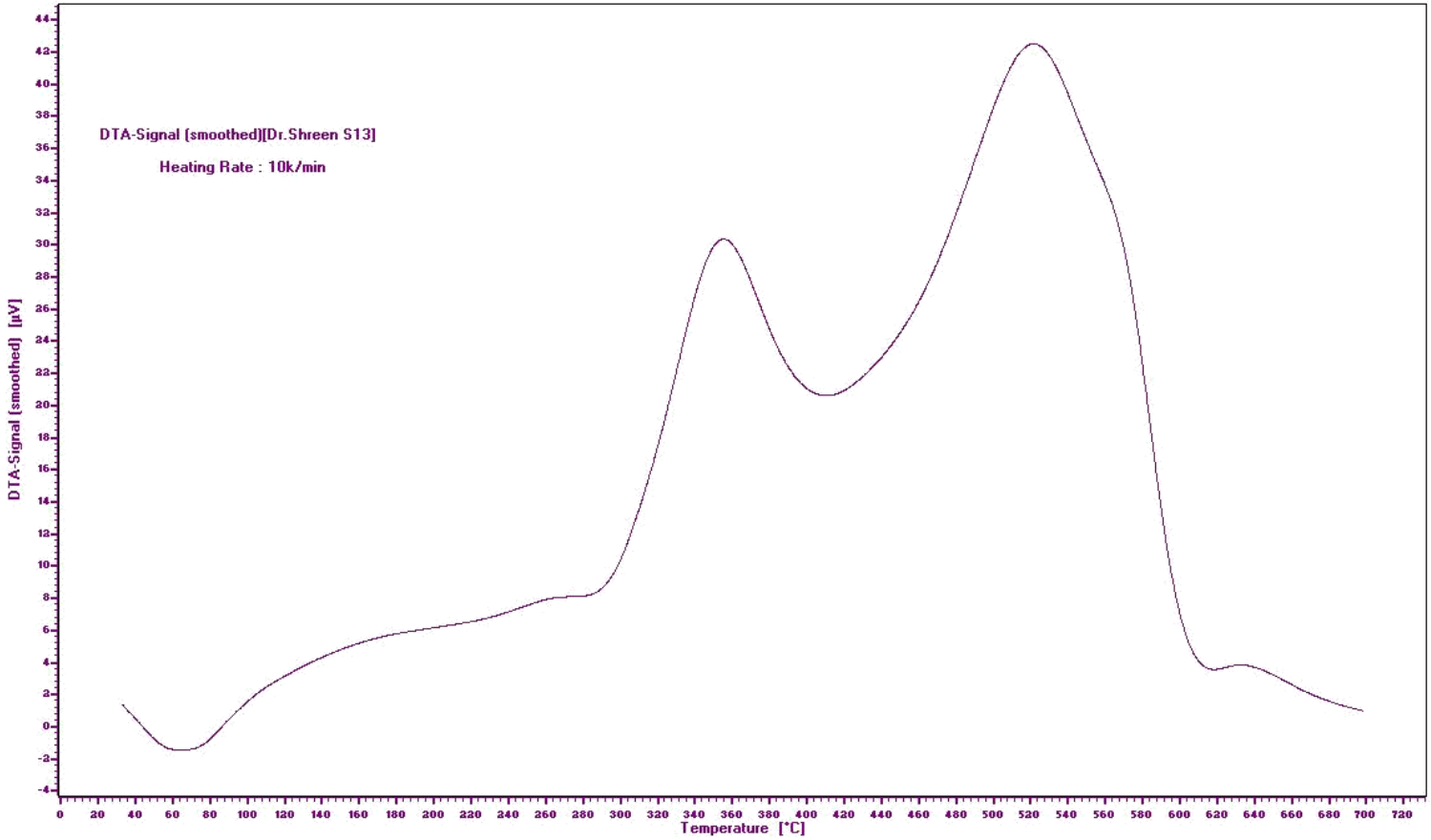


**Figure 116**: DTA of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **44**.

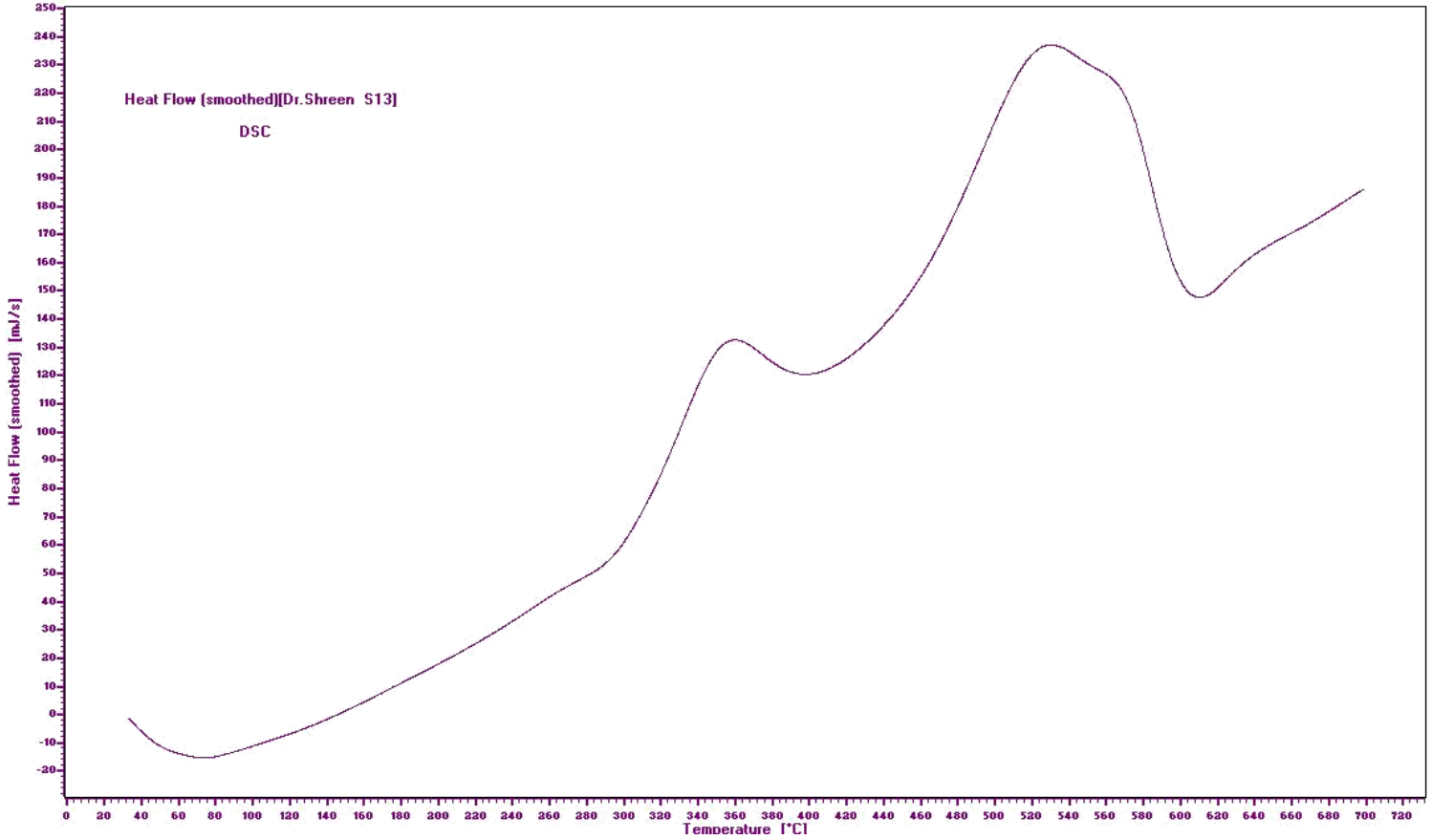


**Figure 117**: DSC of poly[2-(4-(2-(2-aminoethylamino)-2-oxoethylthio)-6-morpholino-1,3,5-triazin-2-ylthio)acetic acid] **44**.

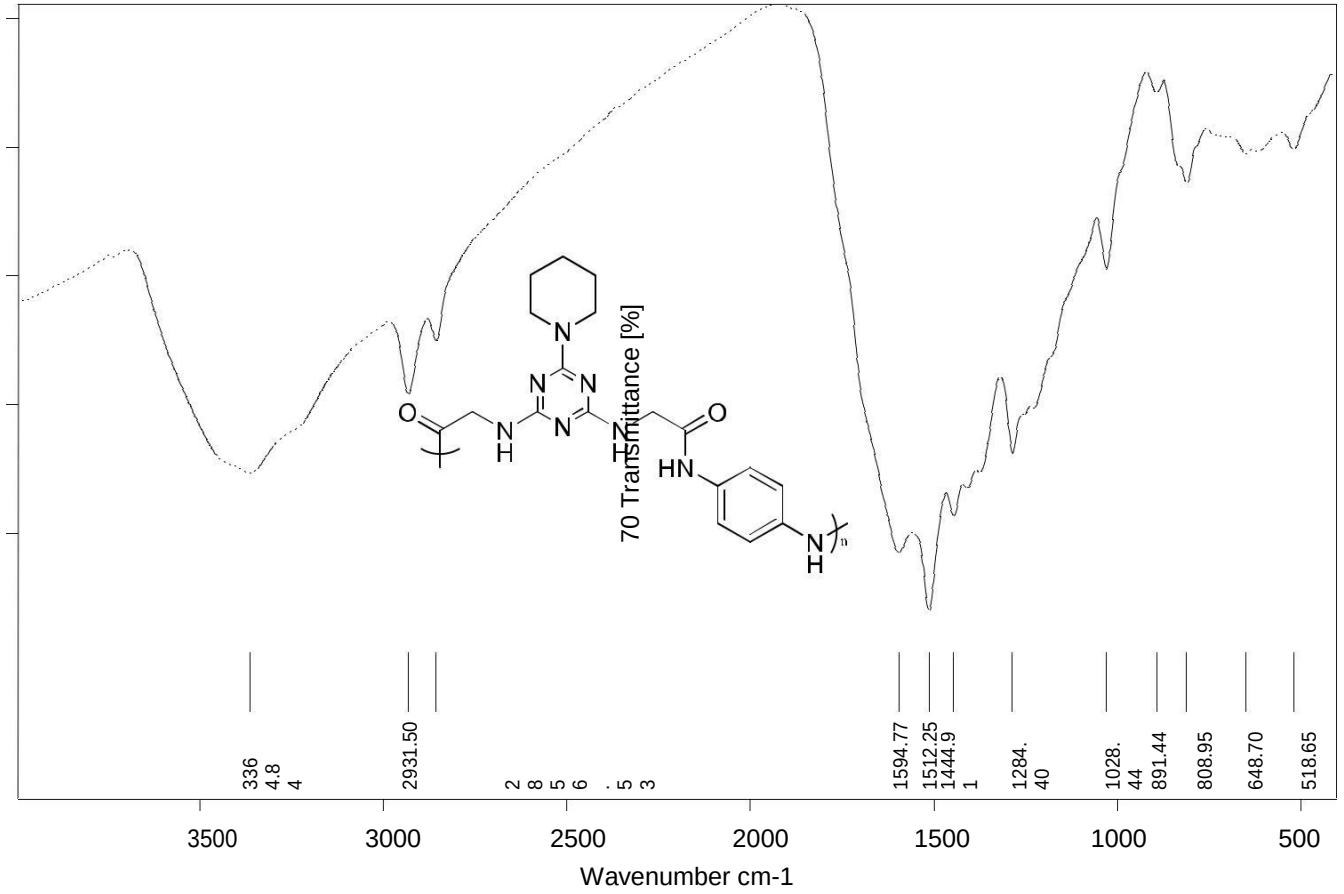


**Figure 118**: IR (KBr) of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid]

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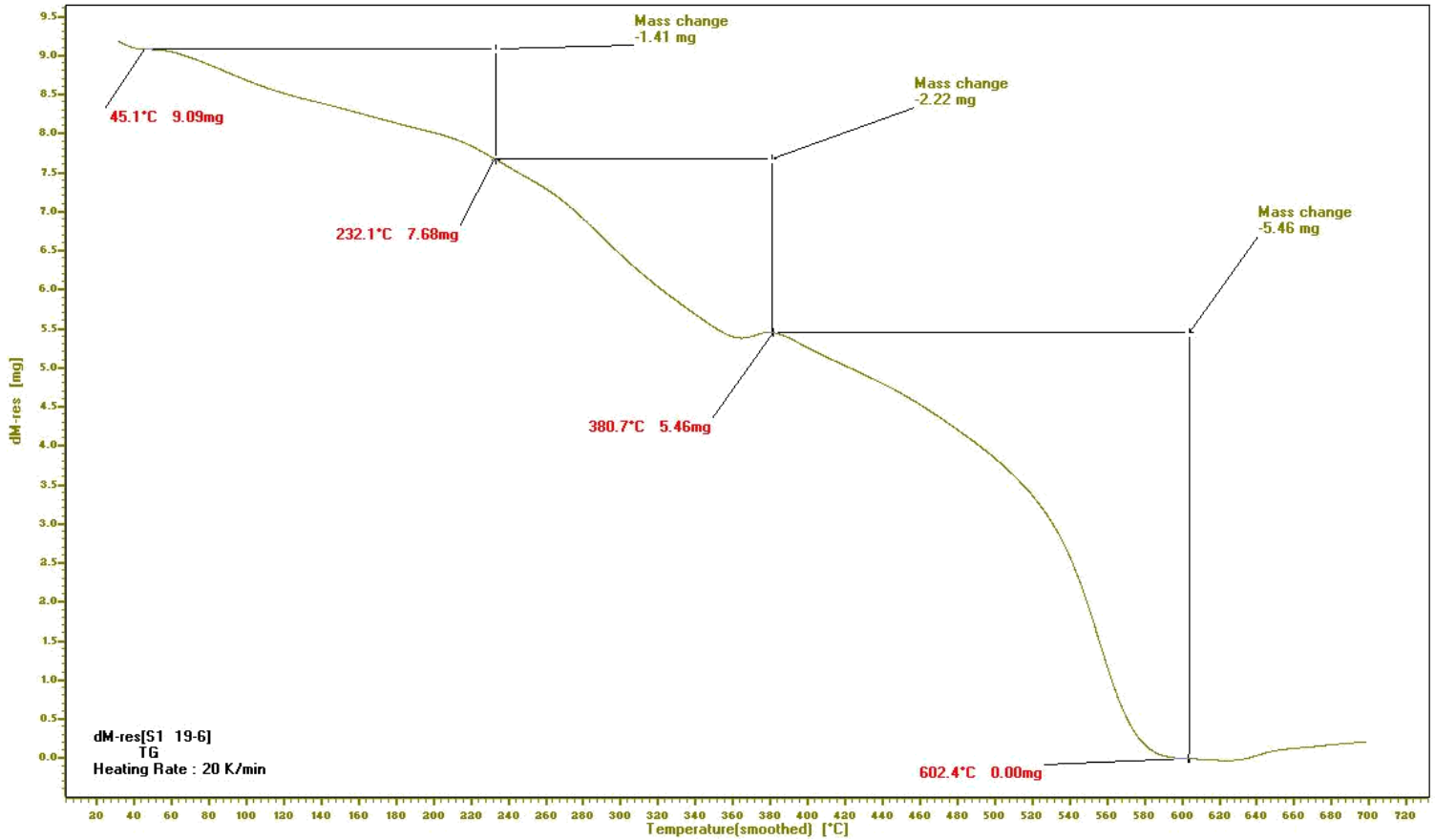


**Figure 119**: TGA of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **45**.

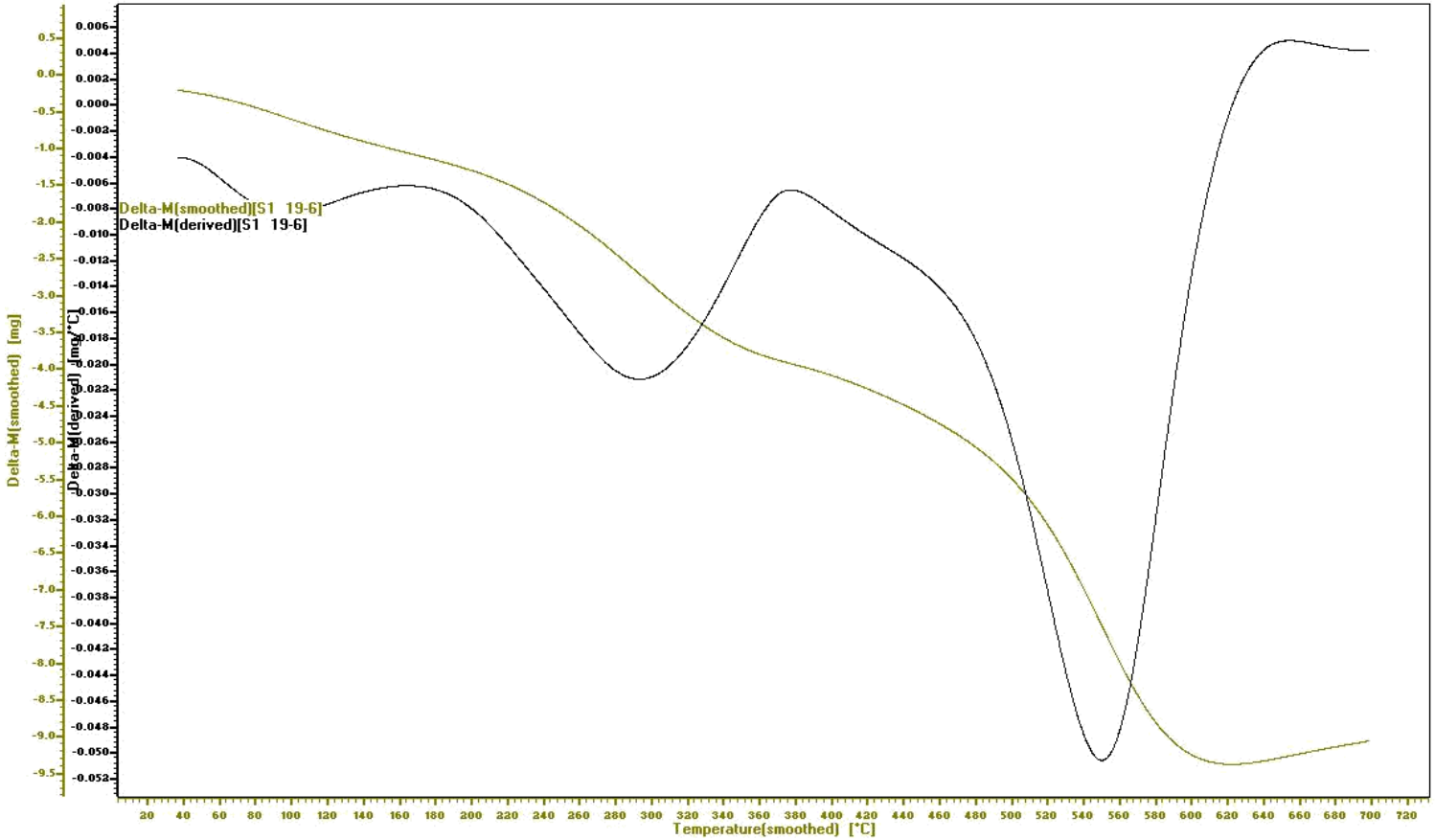


**Figure 120**: TGA/DTG of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **45**.

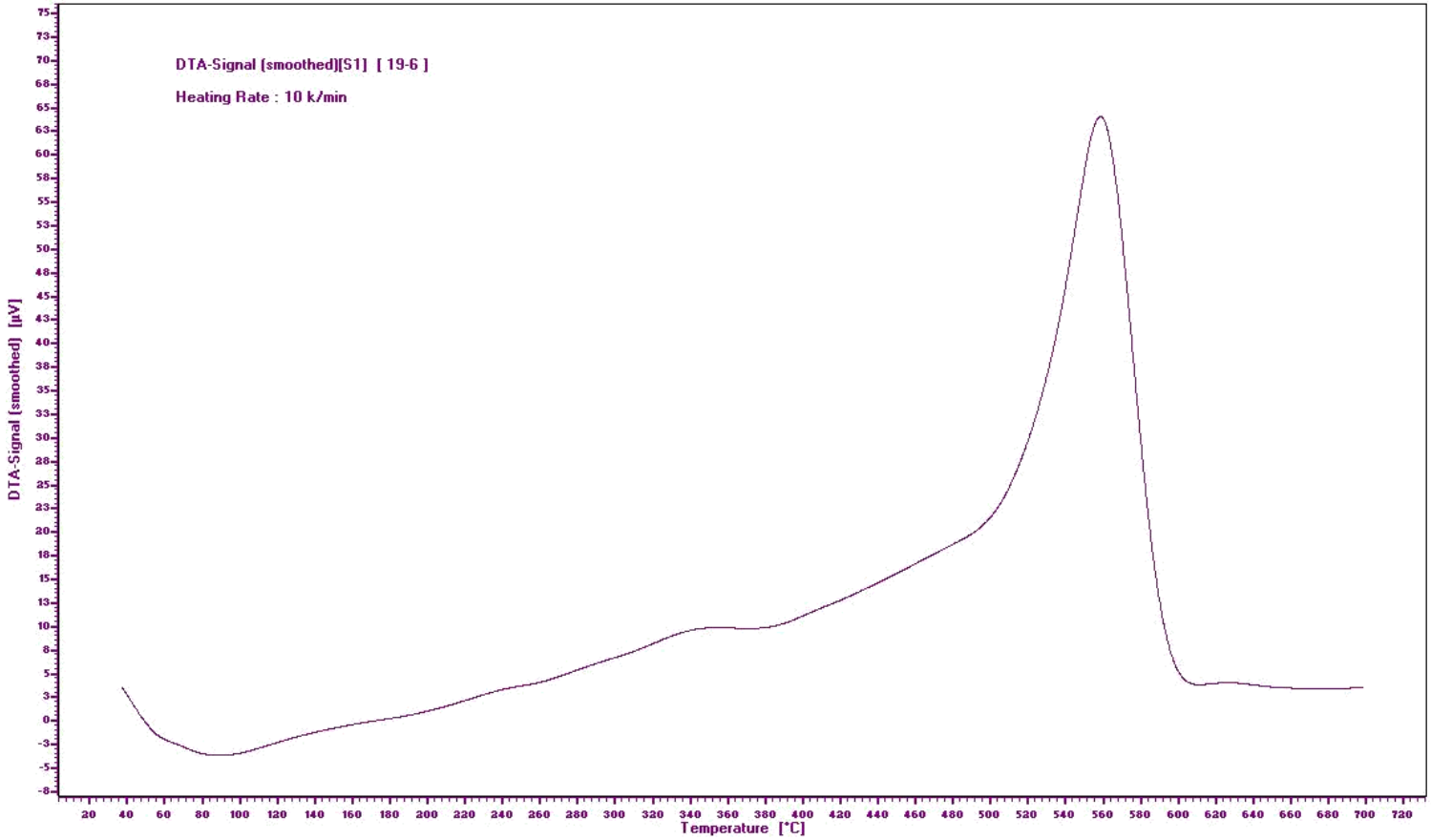


**Figure 121**: DTA of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **45**.

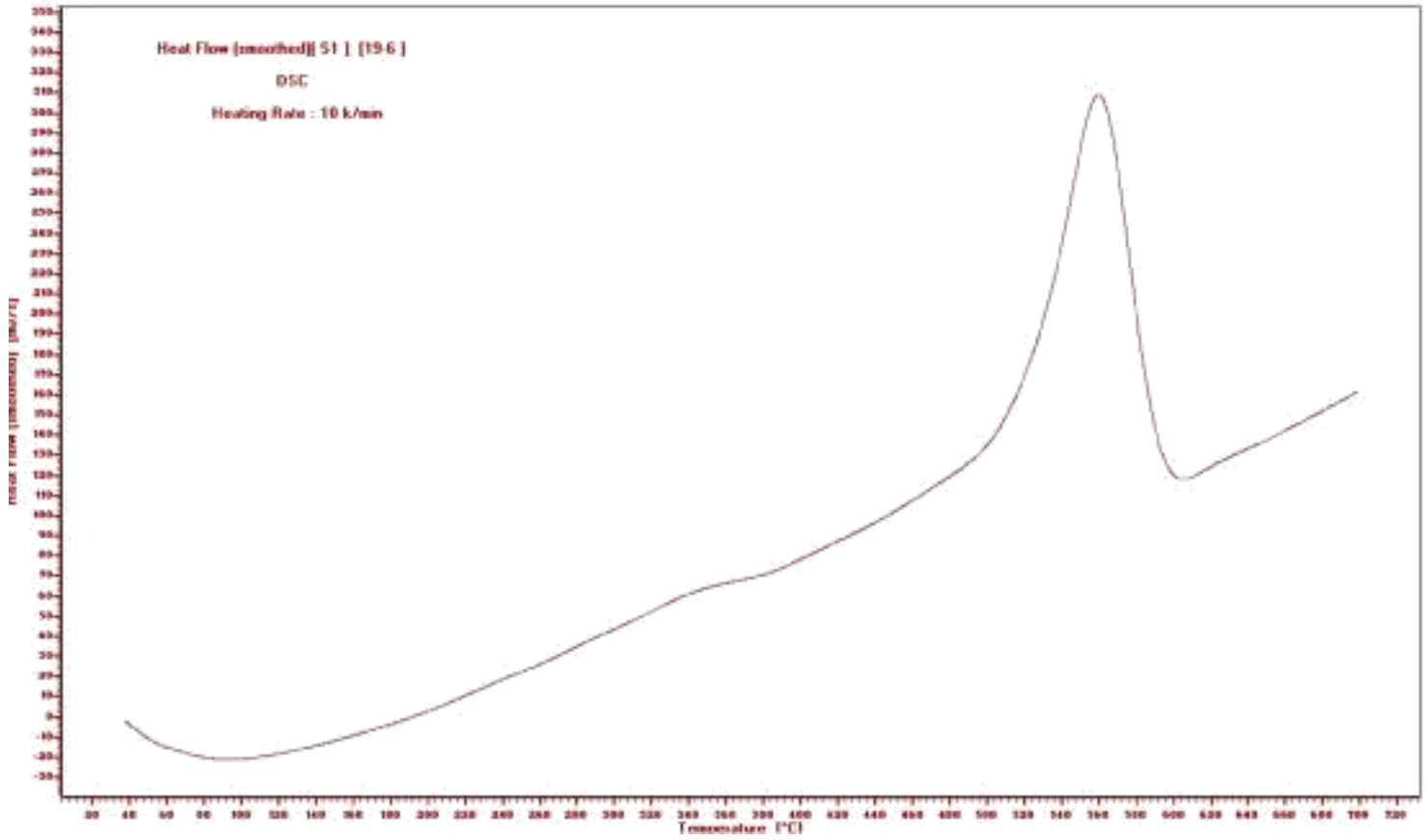


**Figure 122**: DSC of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylamino)acetic acid] **45**.

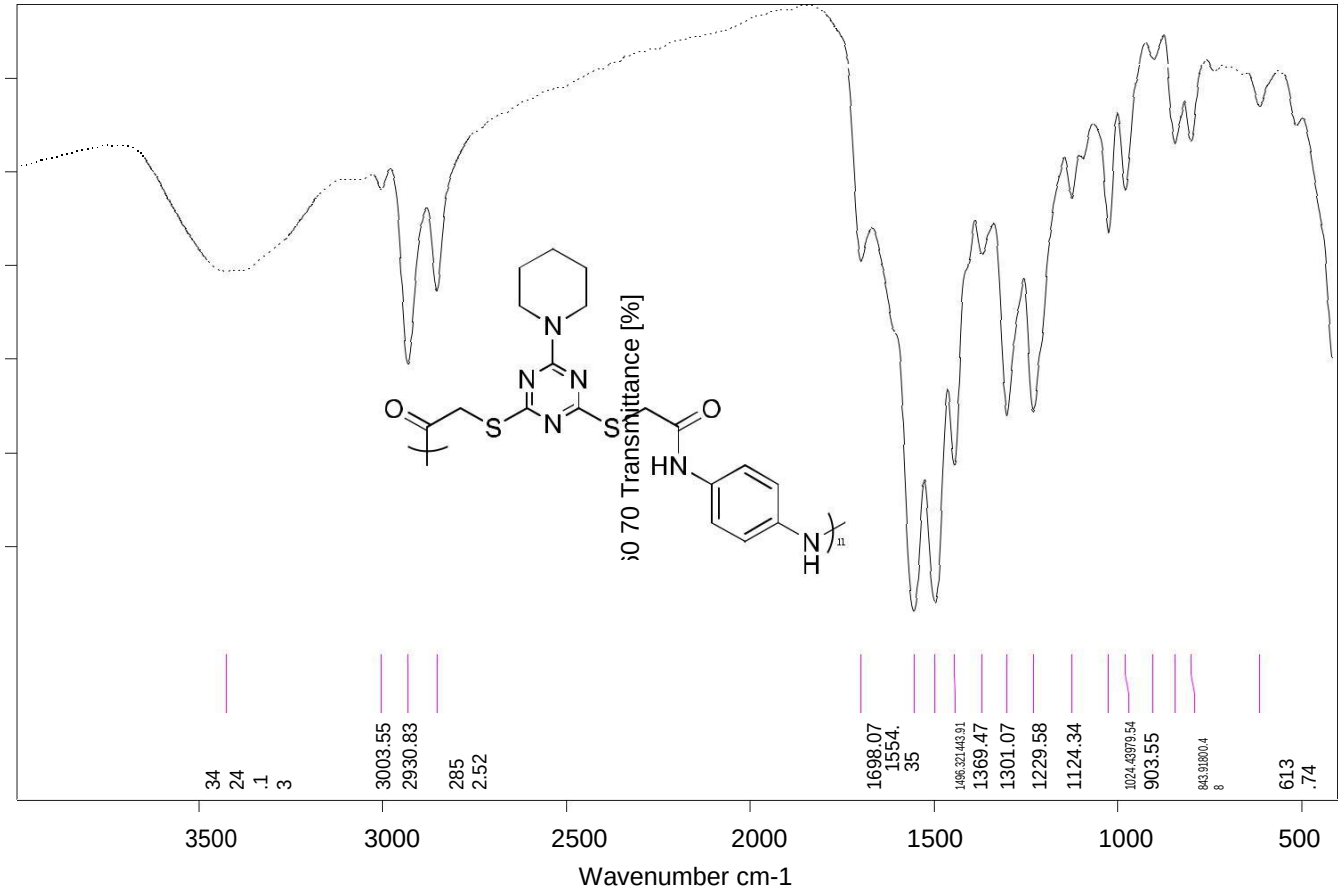


**Figure 123**: IR (KBr) of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **46**.

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**Page 1/1**

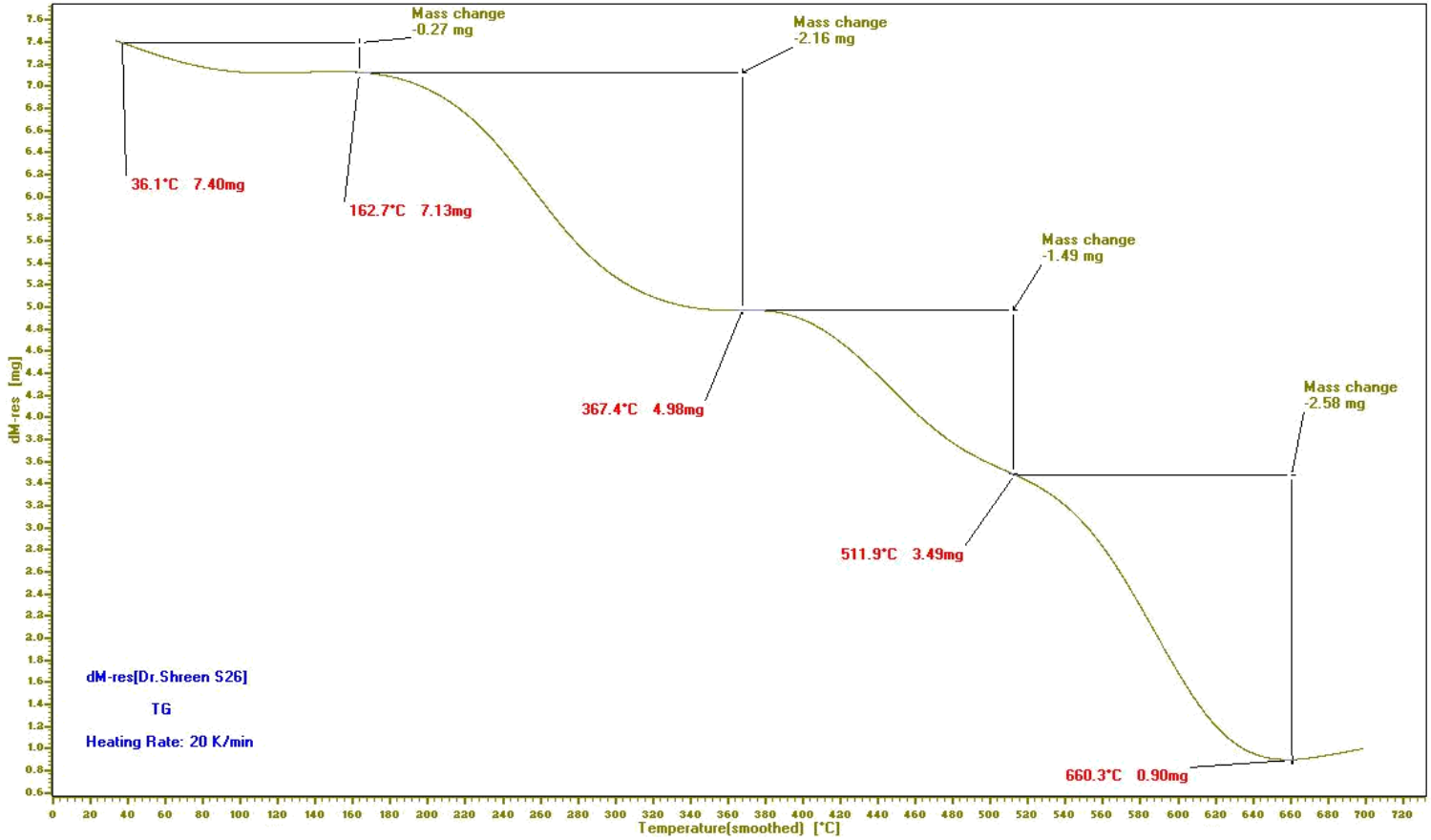


**Figure 124**: TGA of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **46**.

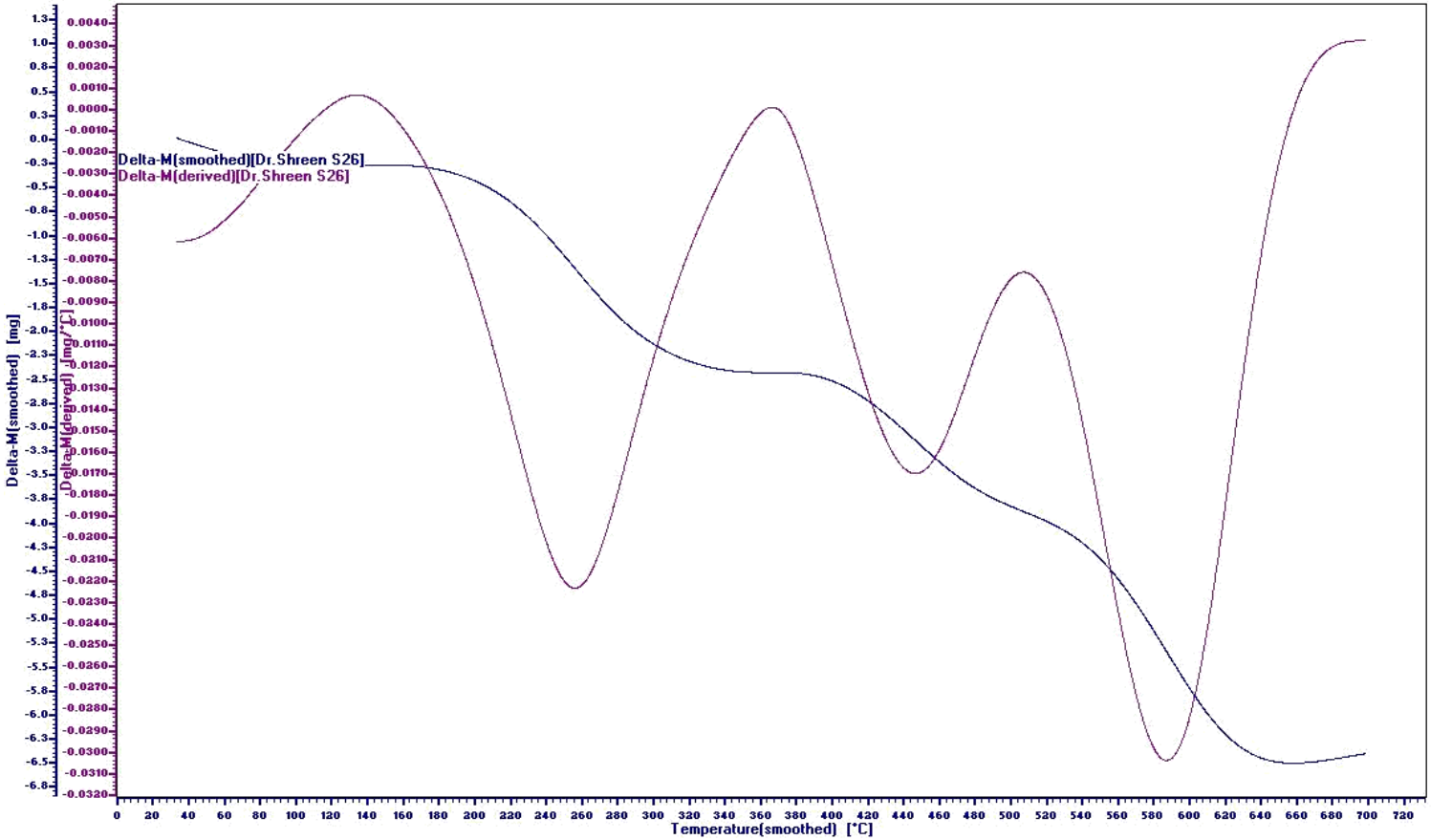


**Figure 125**: TGA/DTG of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **46**.

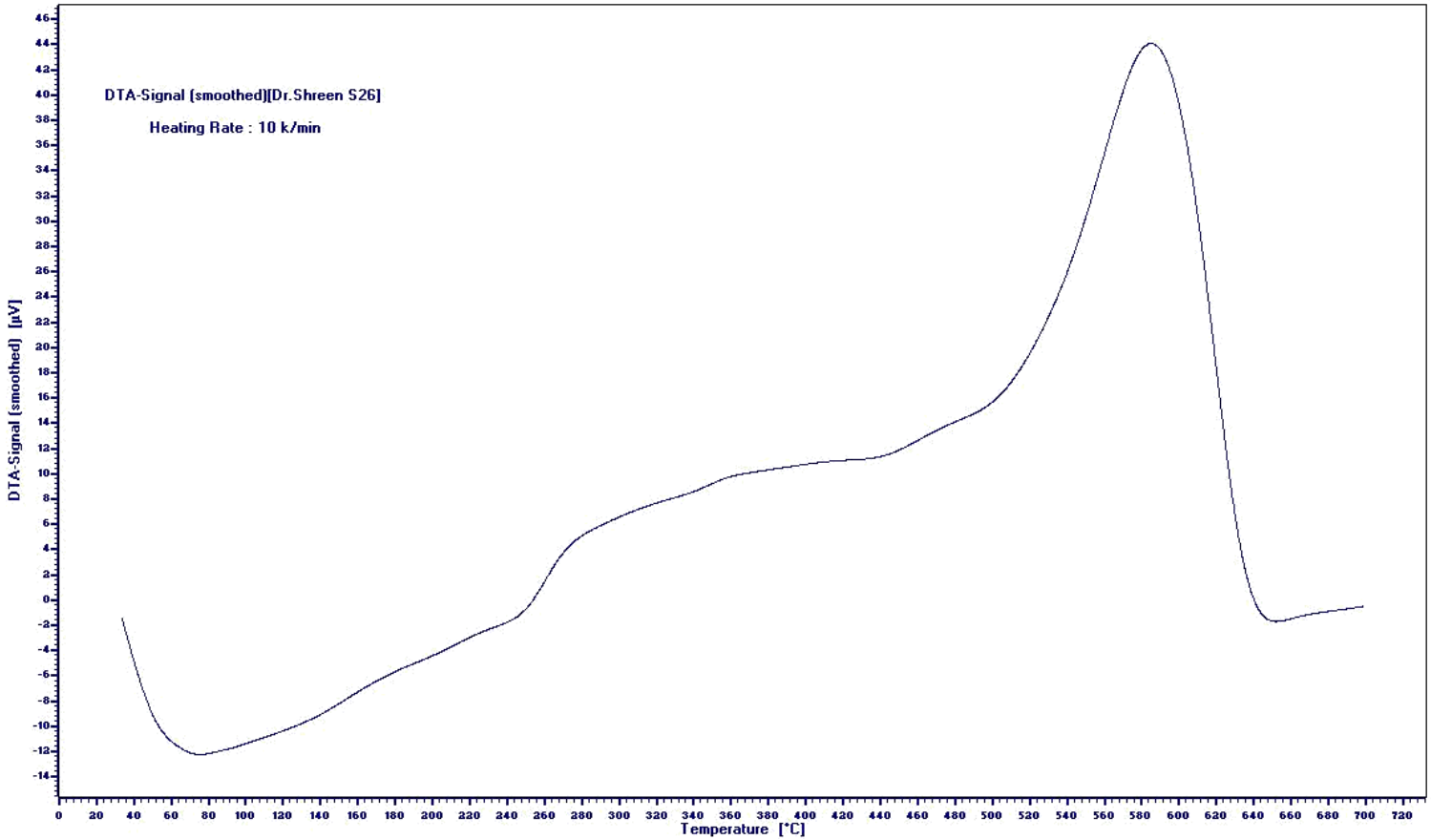


**Figure 126**: DTA of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **46**.

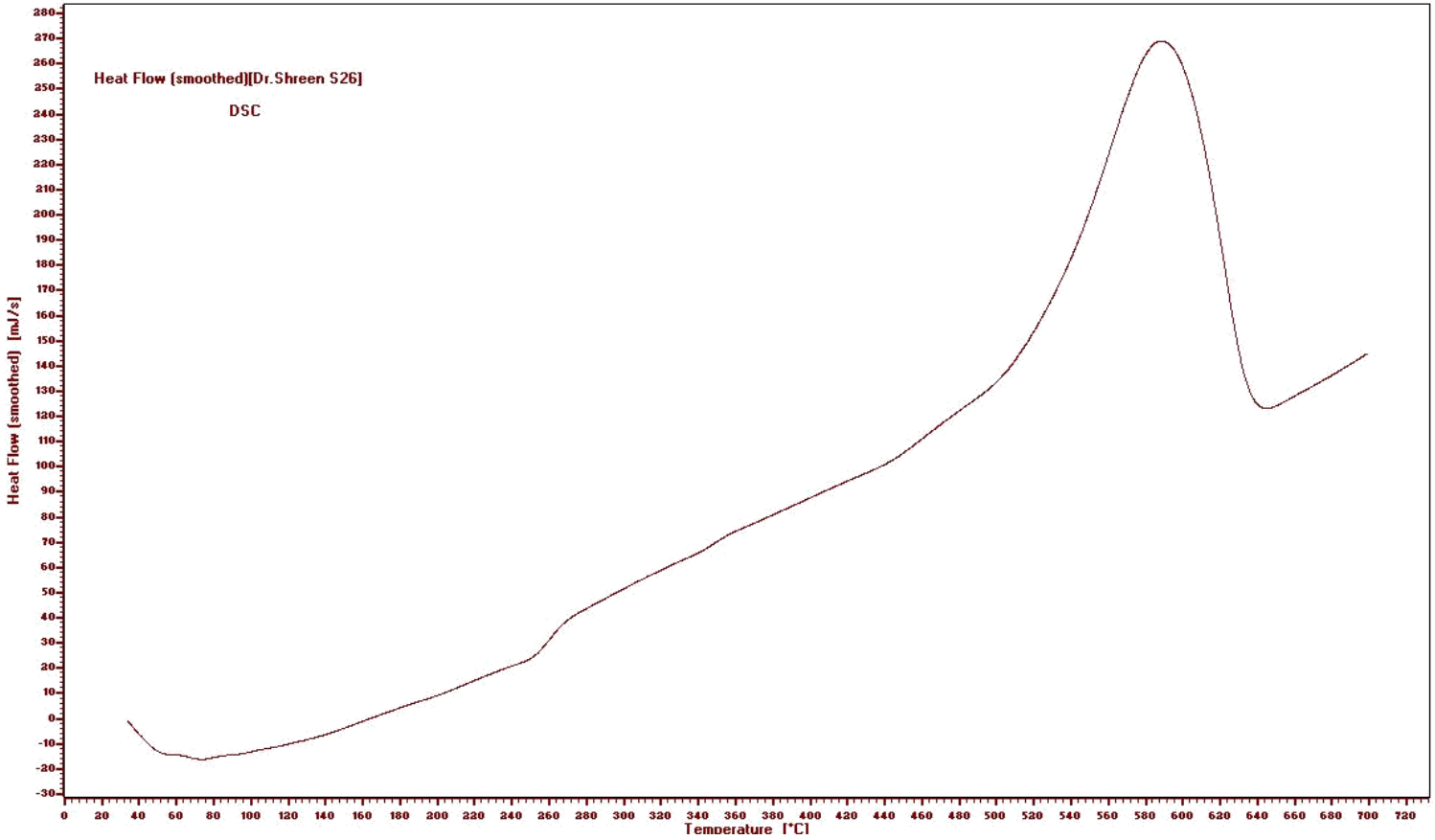


**Figure 127**: DSC of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylthio)-6-(piperidin-1-yl)-1,3,5-triazin-2-ylthio)acetic acid] **46**.

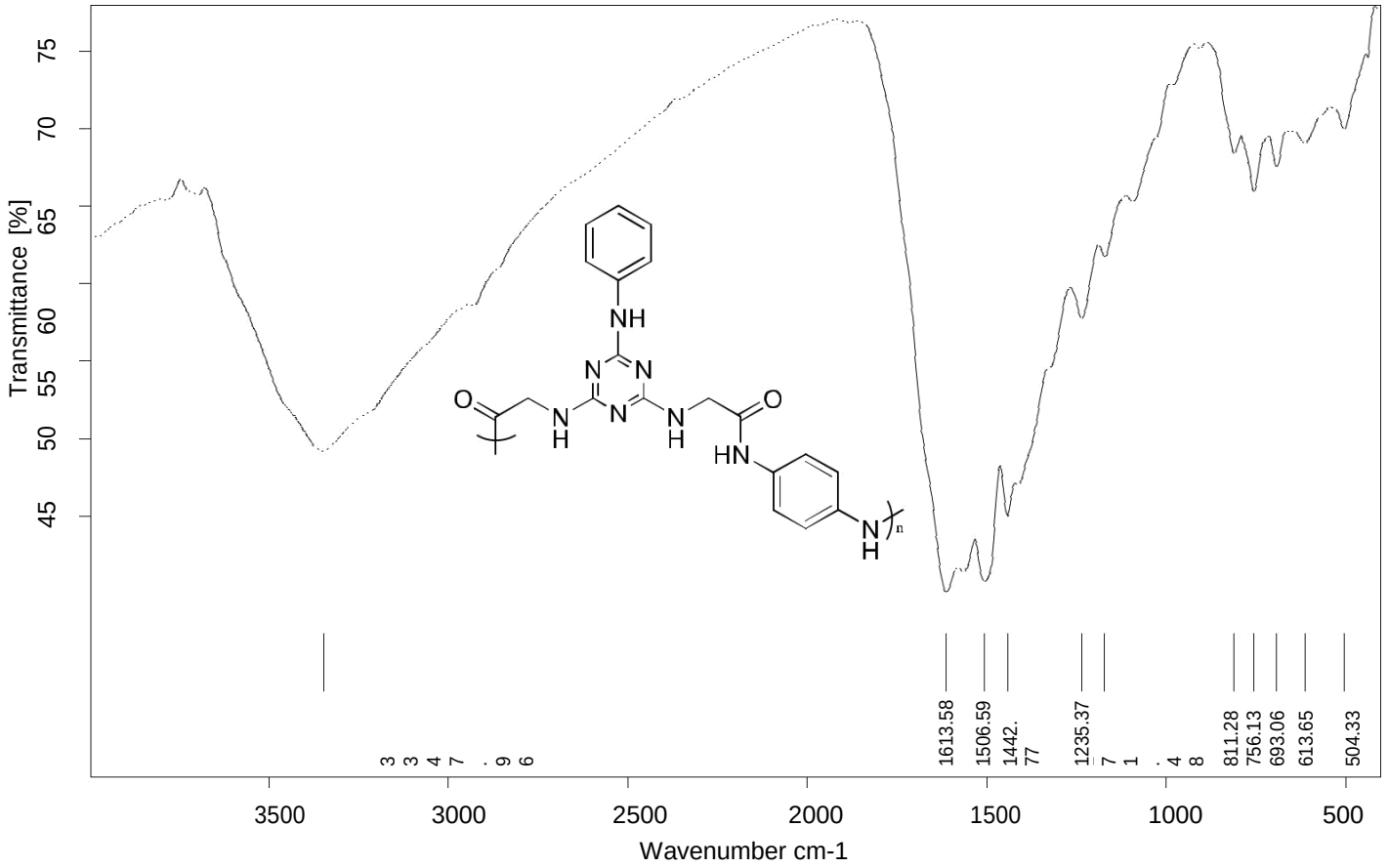


**Figure 128**: IR (KBr) of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid]

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**Page 1/1**

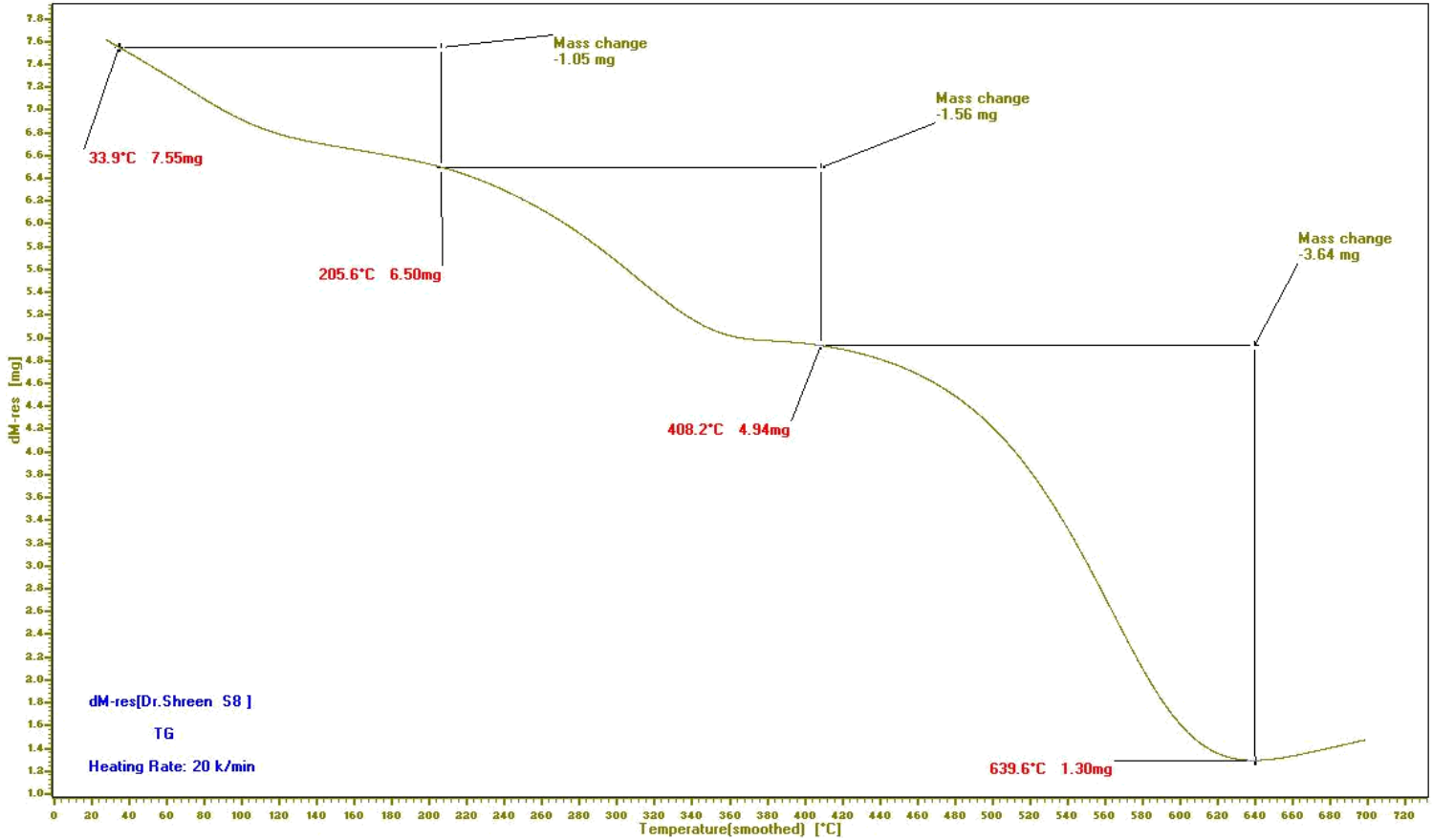



**Figure 129**: TGA of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **47**.

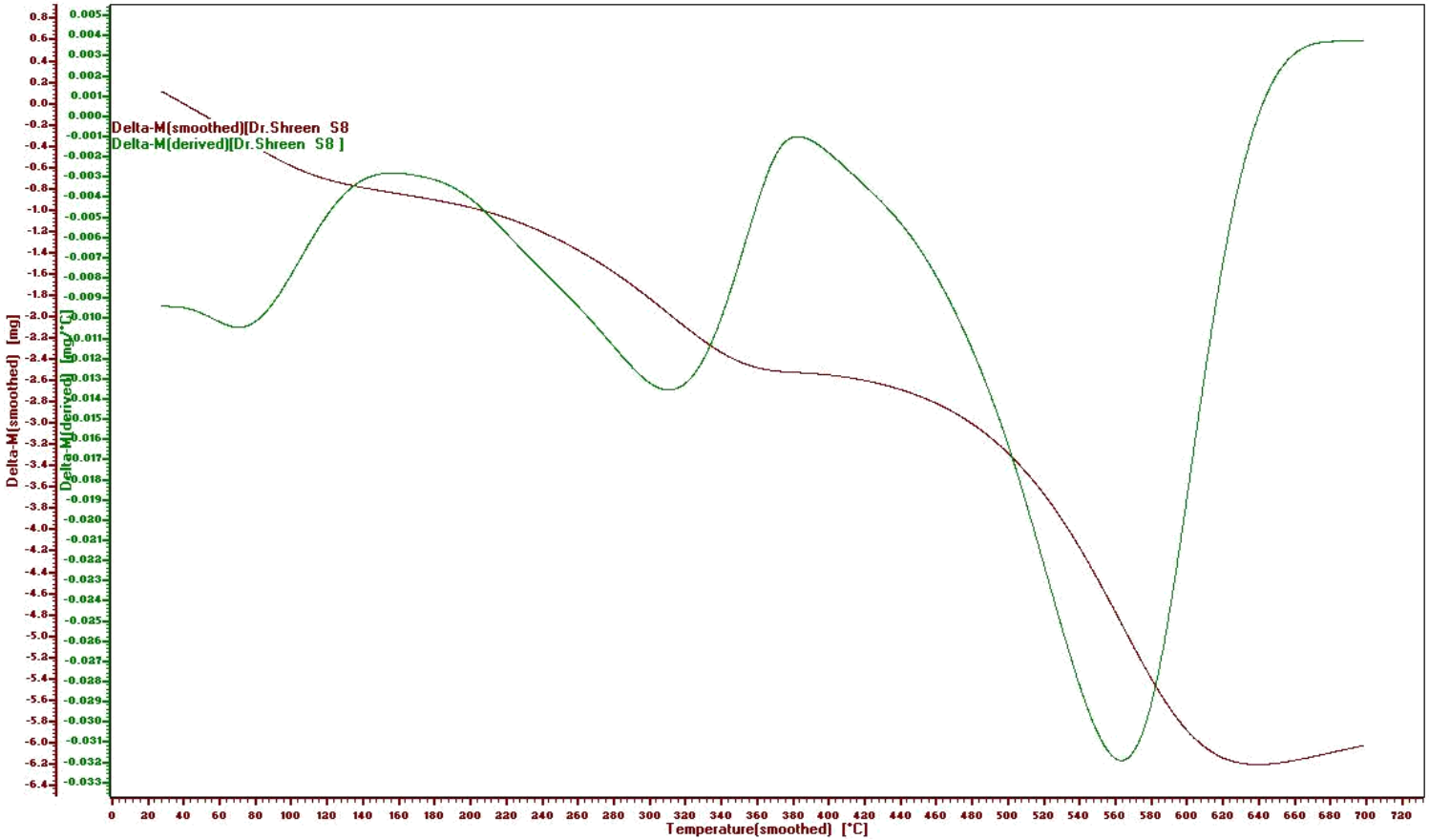



**Figure 130**: TGA/DTG of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **47**.

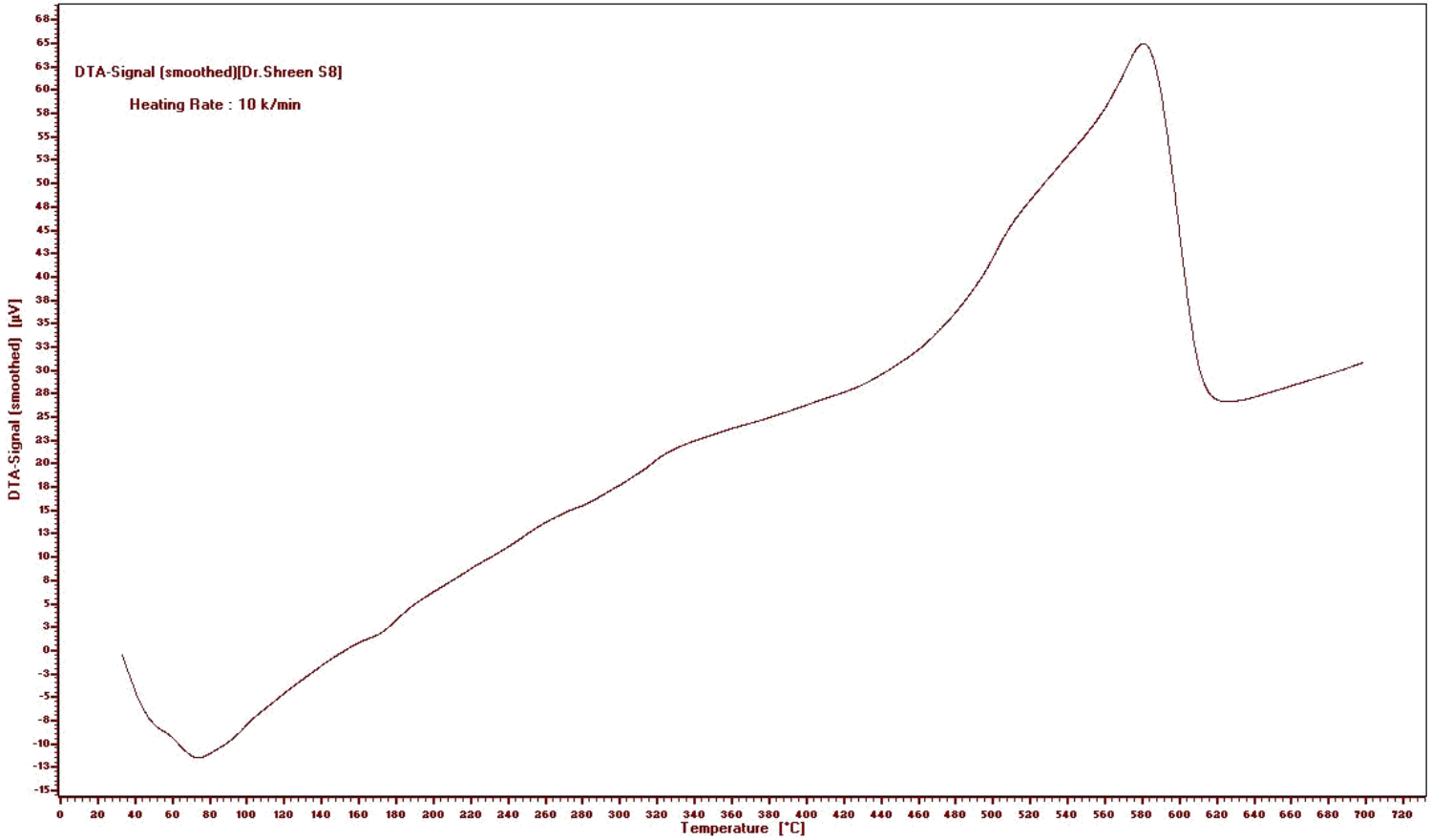



**Figure 131**: DTA of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **47**.

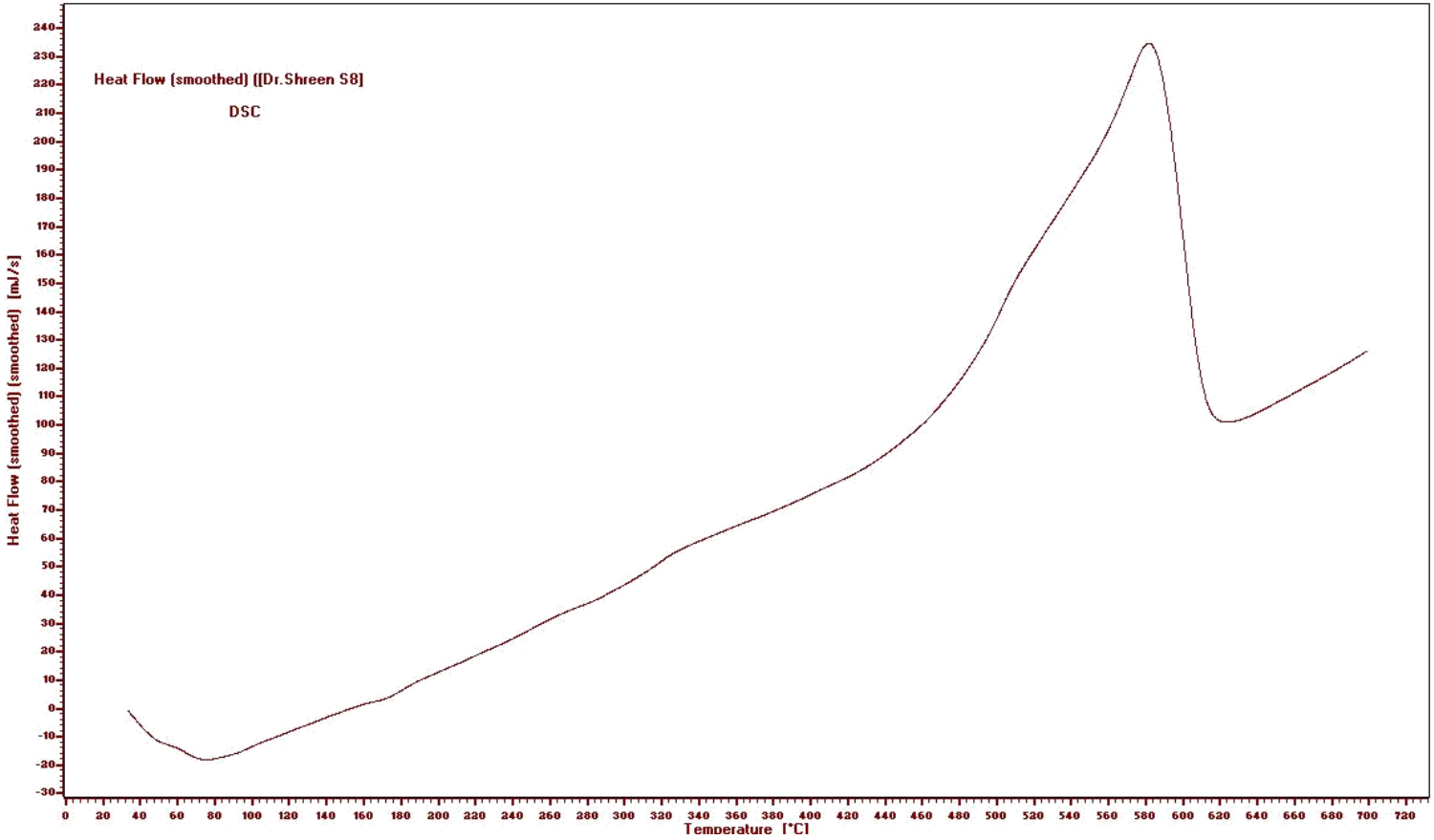



**Figure 132**: DSC of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylamino)-6-(phenylamino)-1,3,5-triazin-2-ylamino)acetic acid] **47**.

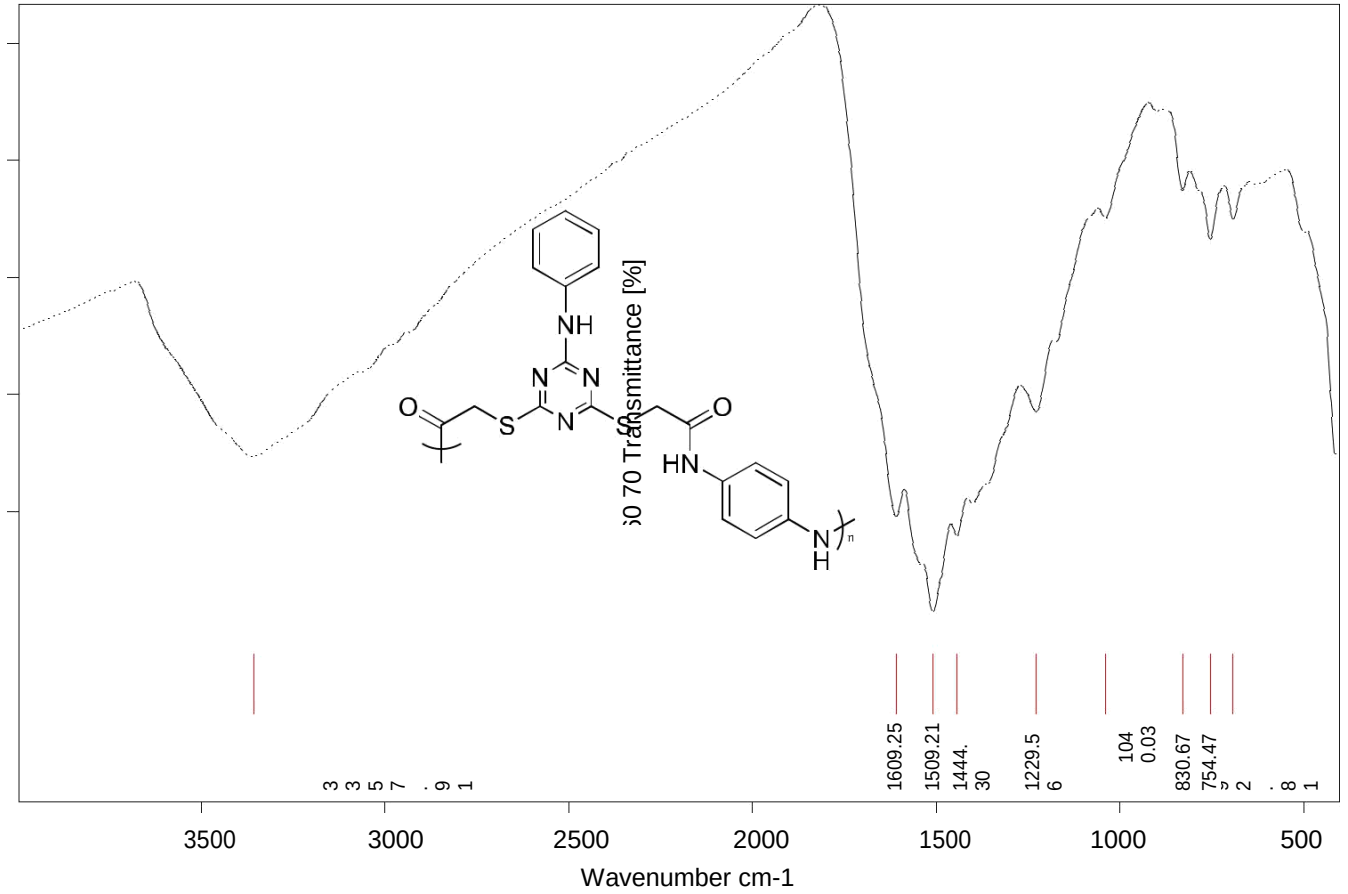



**Figure 133**: IR (KBr) of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **48**.

C:\Program Files\OPUS_65\MEAS\Dr Shreen S25.0 Dr Shreen S25 Instrument type and / or accessory 19/08/2014

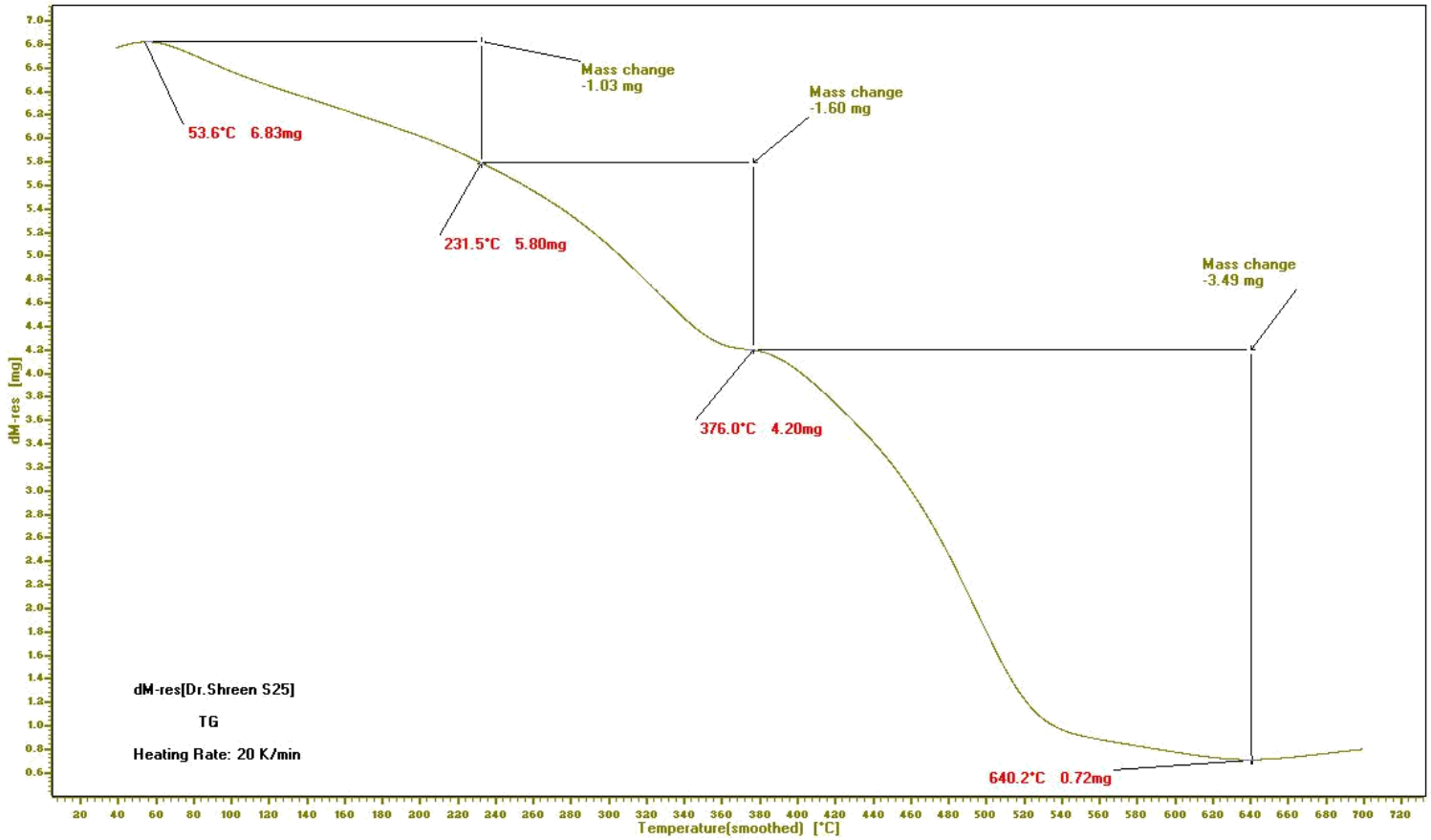



**Figure 134**: TGA of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **48**.

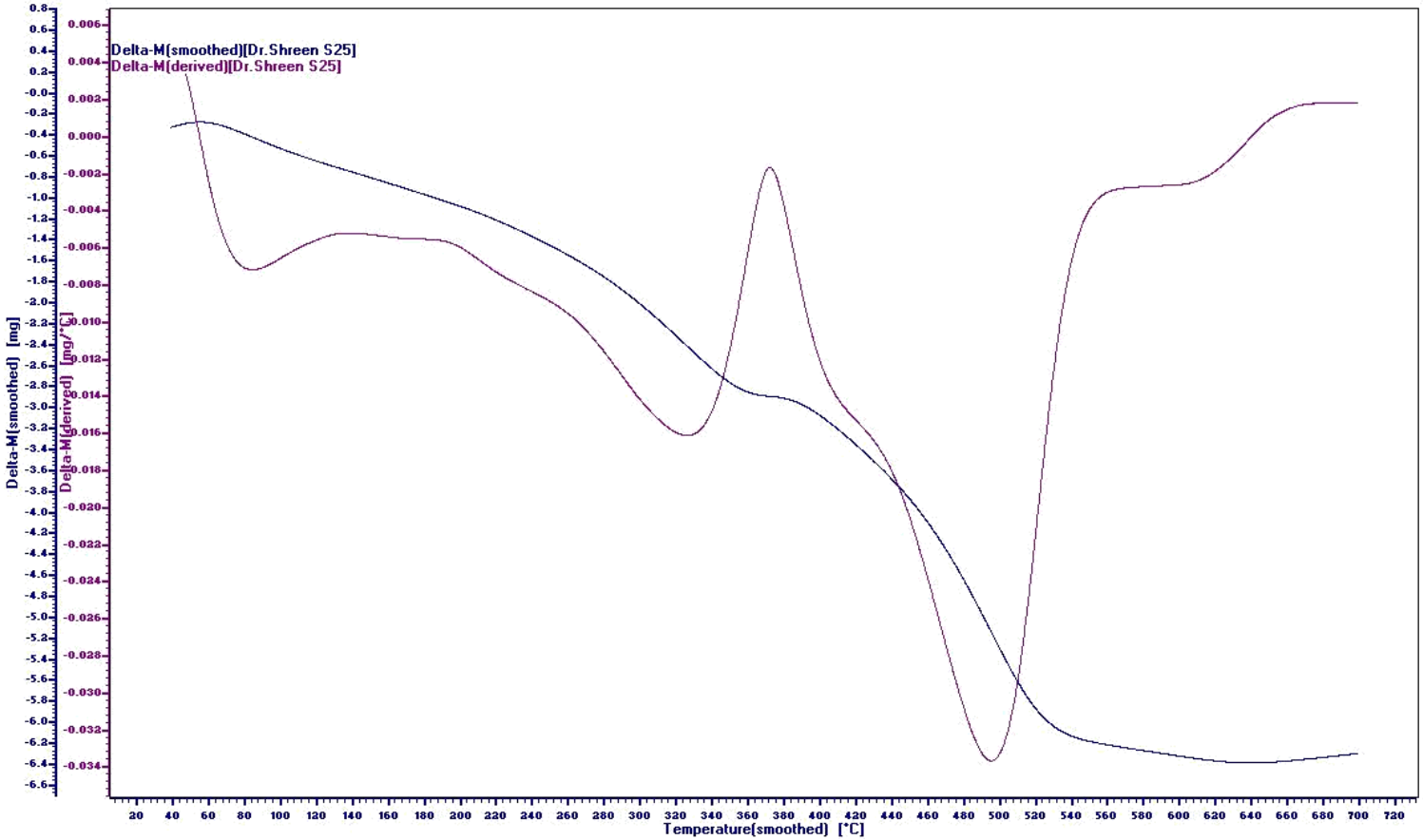



**Figure 135**: TGA/DTG of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **48**.

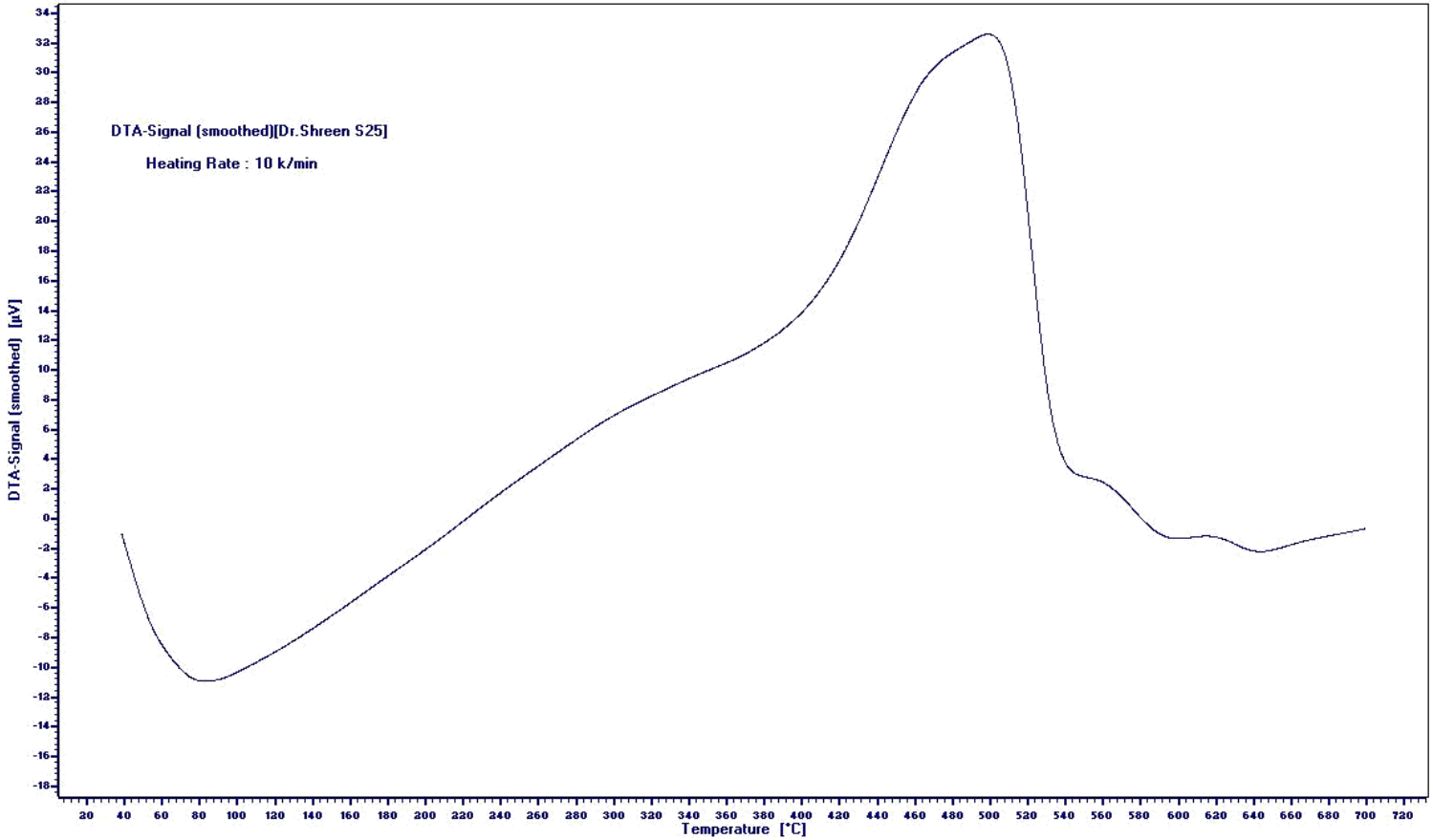



**Figure 136**: DTA of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **48**.

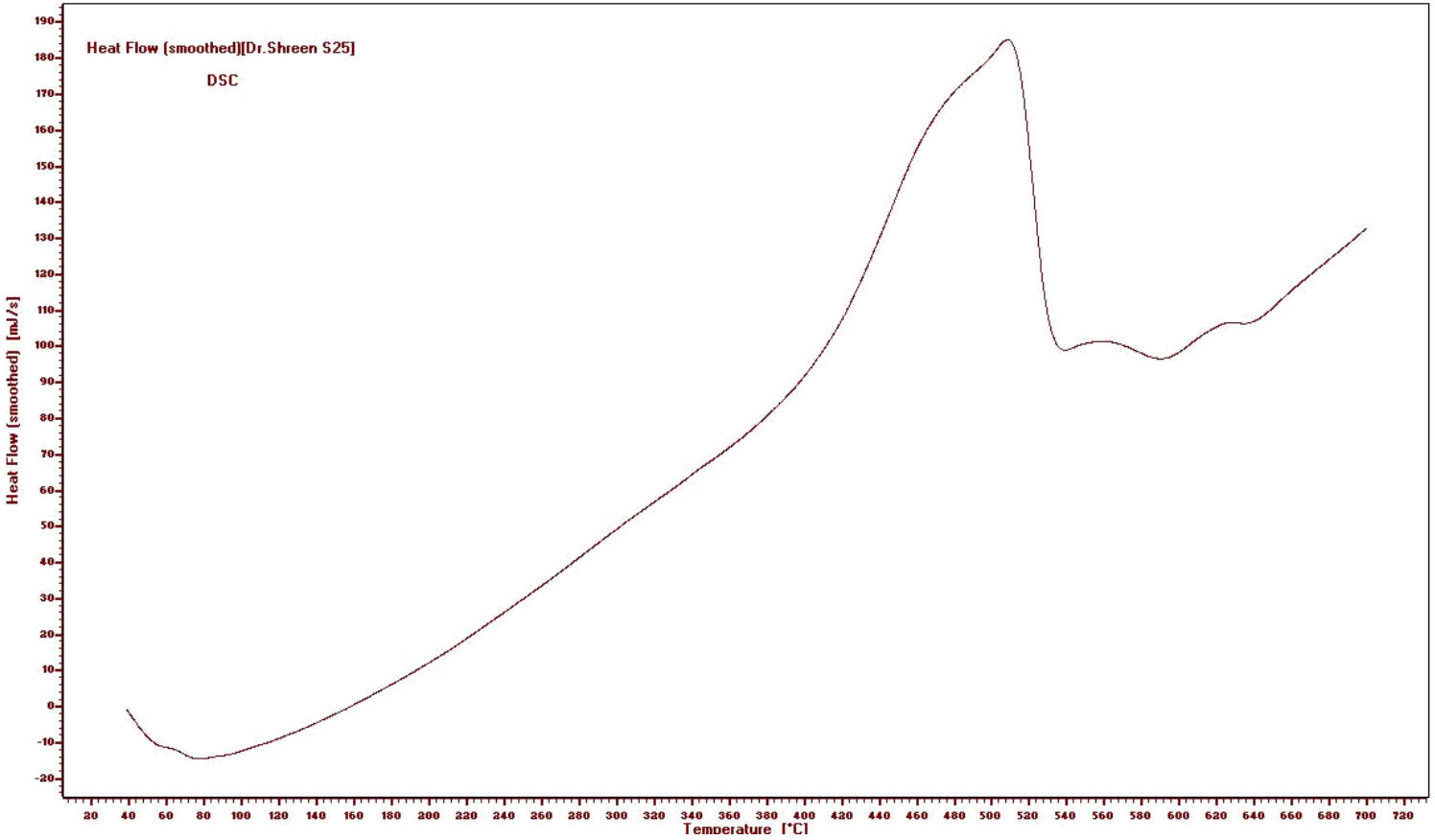



**Figure 137**: DSC of poly[2-(4-(2-(4-aminophenylamino)-2-oxoethylthio)-6-(phenylamino)-1,3,5-triazin-2-ylthio)acetic acid] **48**.

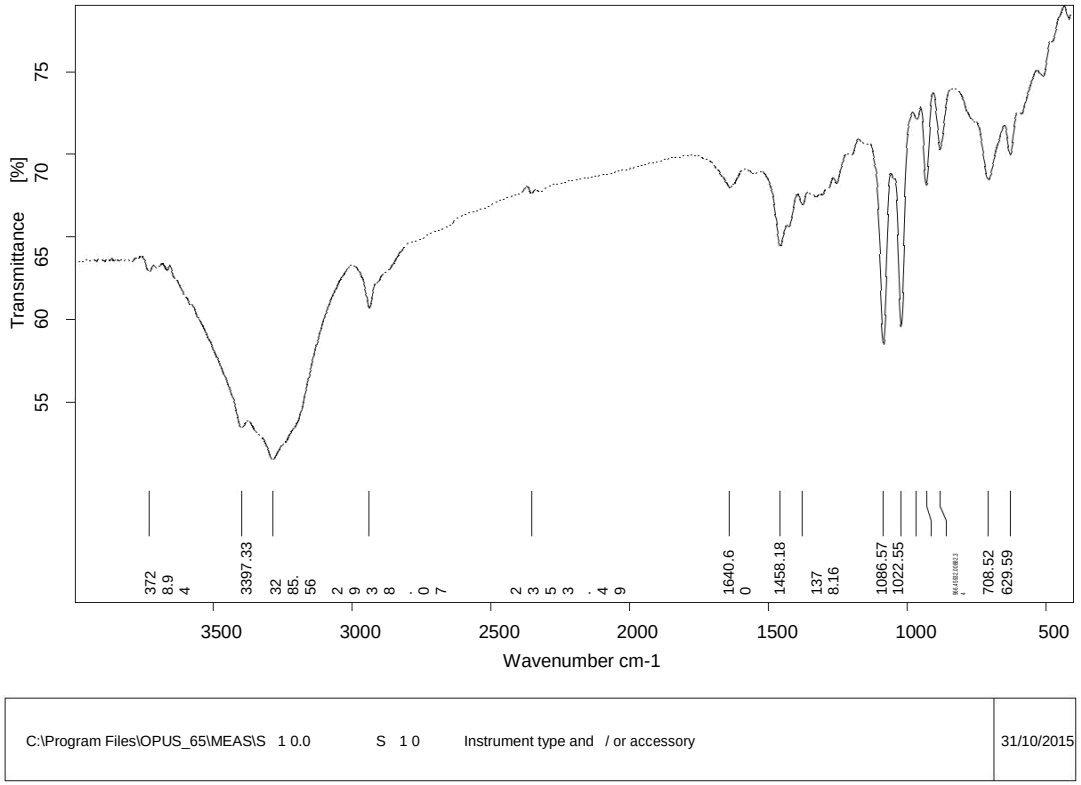



**Figure 138**: IR (KBr) of Celecoxib (CXB)-loaded polymeric NPs **CXB-26**

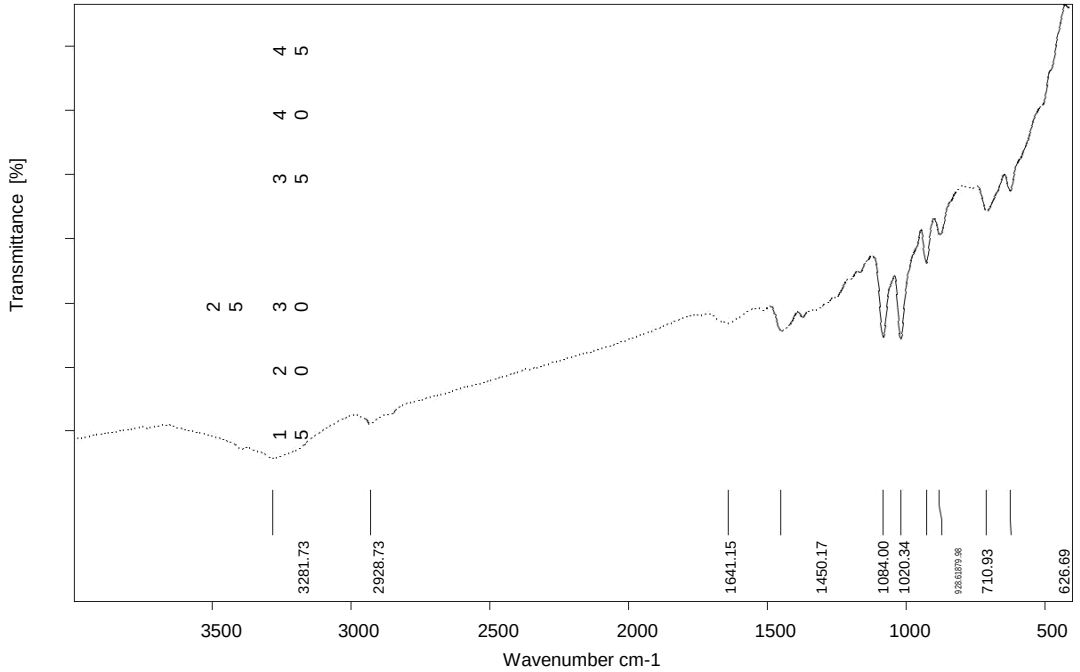



**Figure 139**: IR (KBr) of Celecoxib (CXB)-loaded polymeric NPs **CXB-43**

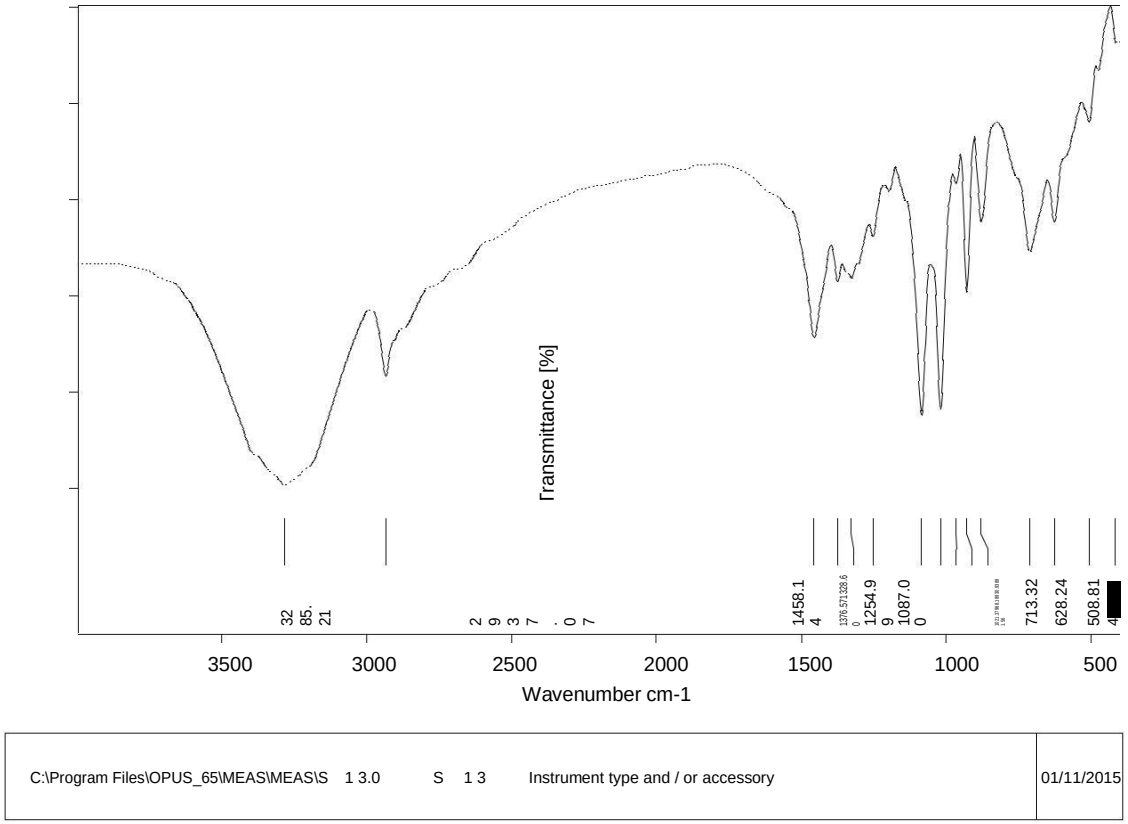



**Figure 140**: IR (KBr) of Celecoxib (CXB)-loaded polymeric NPs **CXB-44**

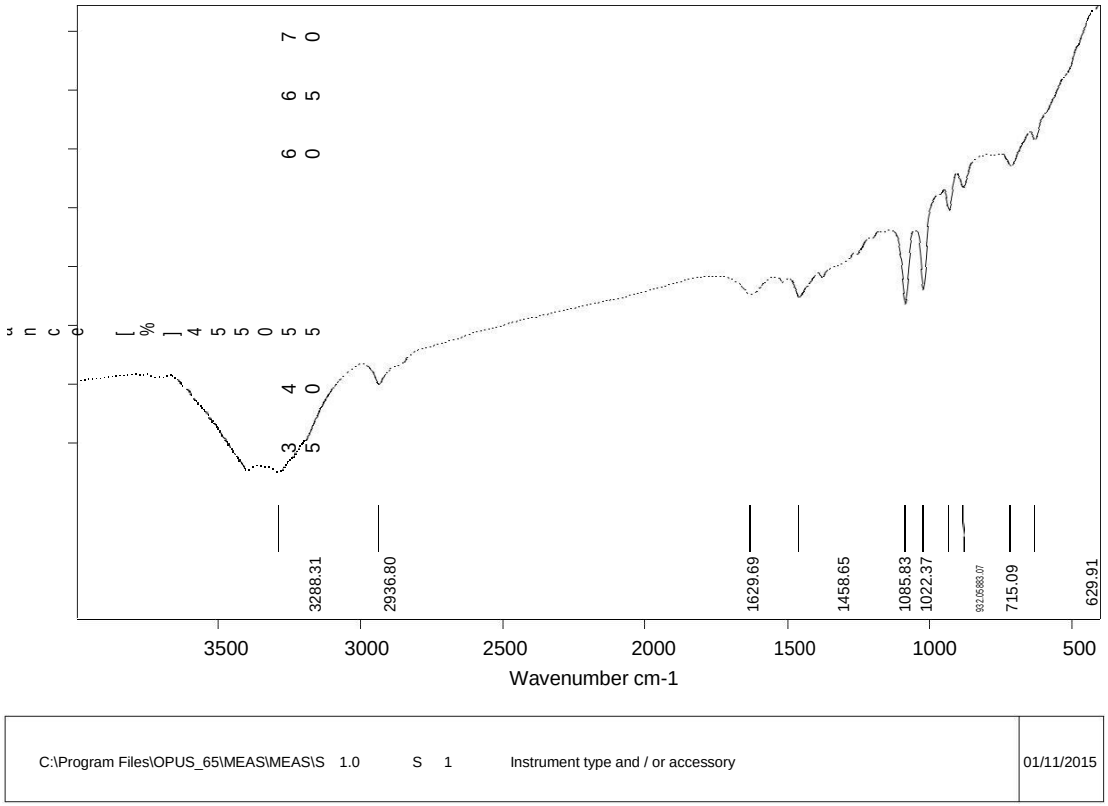



**Figure 141:** IR (KBr) of Celecoxib (CXB)-loaded polymeric NPs **CXB-45**

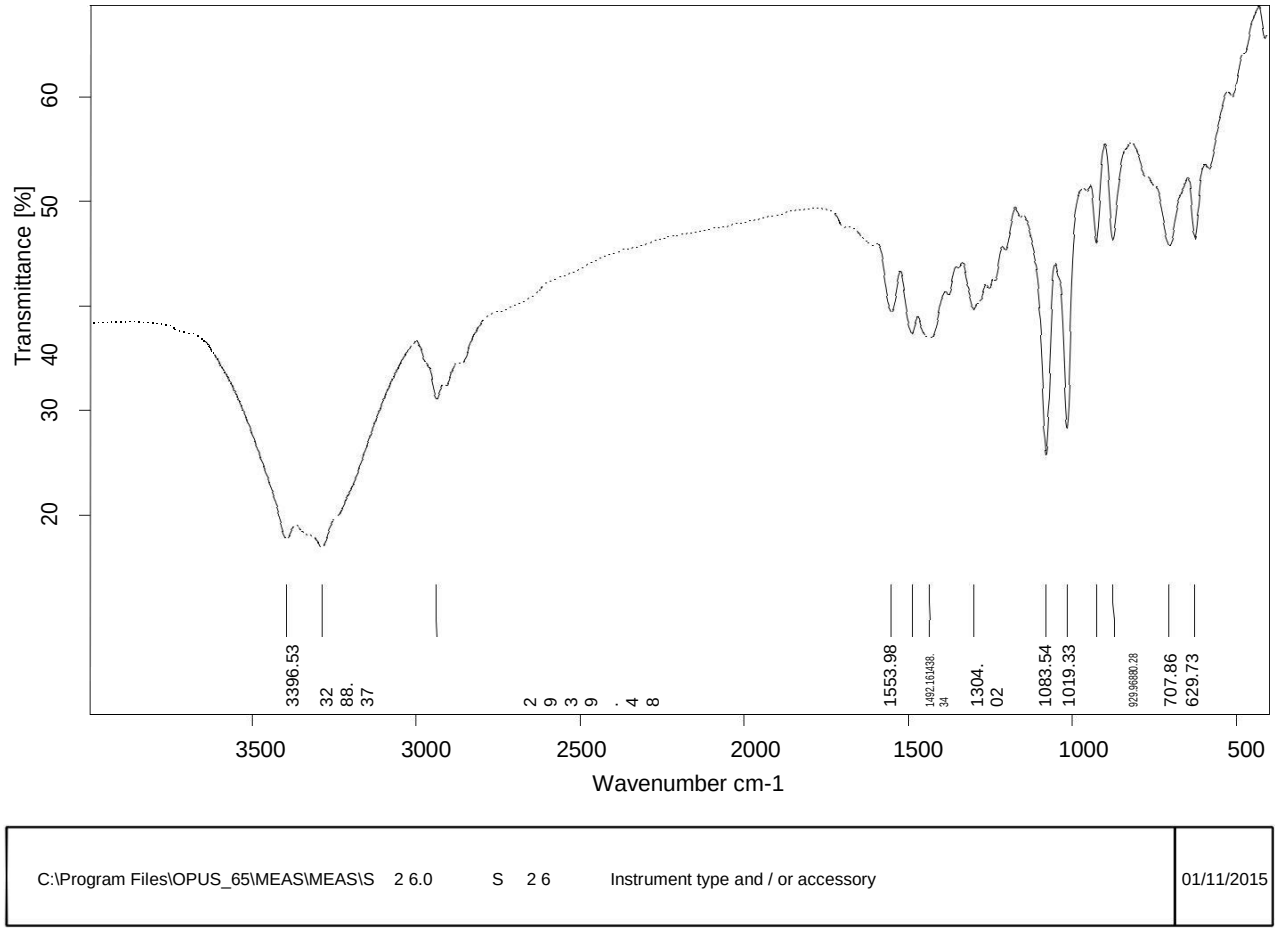
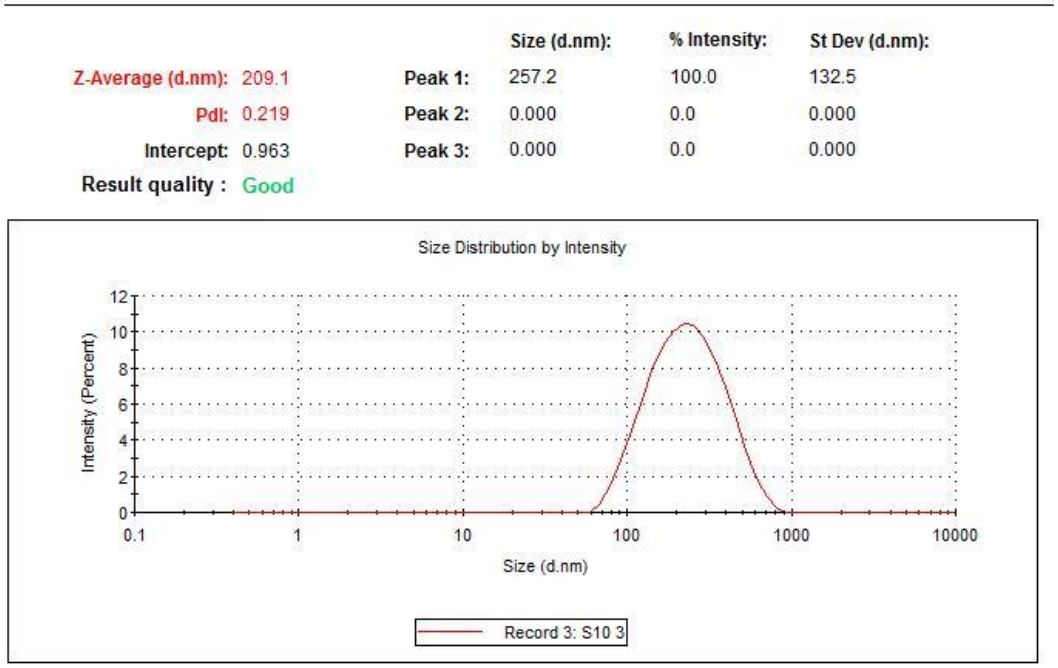



**Figure 142**: IR (KBr) of Celecoxib (CXB)-loaded polymeric NPs **CXB-46**

**Figure 143a, b**: Particle size and Zeta potential of Celecoxib (CXB)-loaded polymeric NPs **CXB-26 NPs**

### *a) Particle size*



b) ***Zeta potential***

| | | Mean (mV) | Area (%) | St Dev (mV) |
|---|---|---|---|---|
| Zeta Potential (mV): -31.2 | Peak 1: | -31.2 | 100.0 | 5.42 |
| Zeta Deviation (mV): 5.42 | Peak 2: | 0.00 | 0.0 | 0.00 |
| Conductivity (mS/cm): 0.0162 | Peak 3: | 0.00 | 0.0 | 0.00 |

**Result quality :** Good

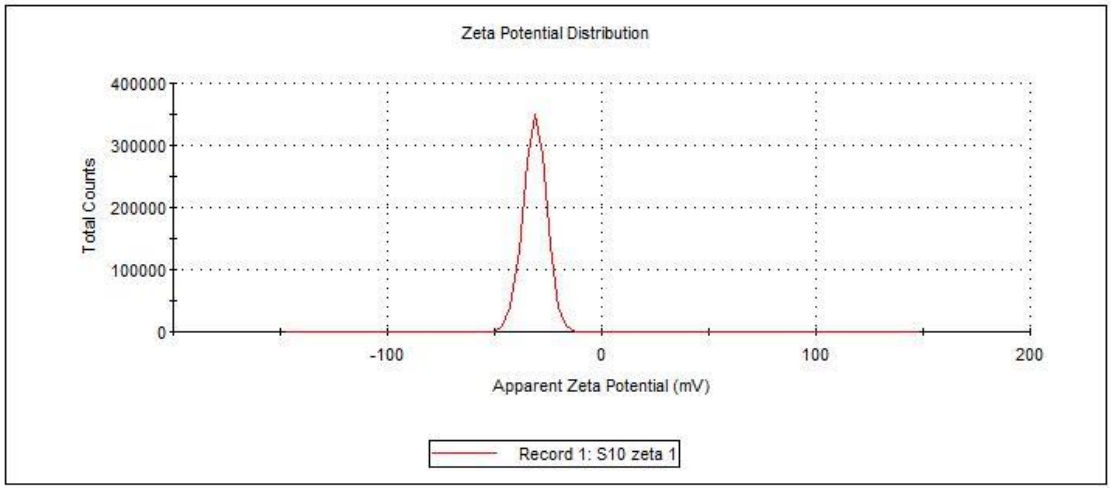
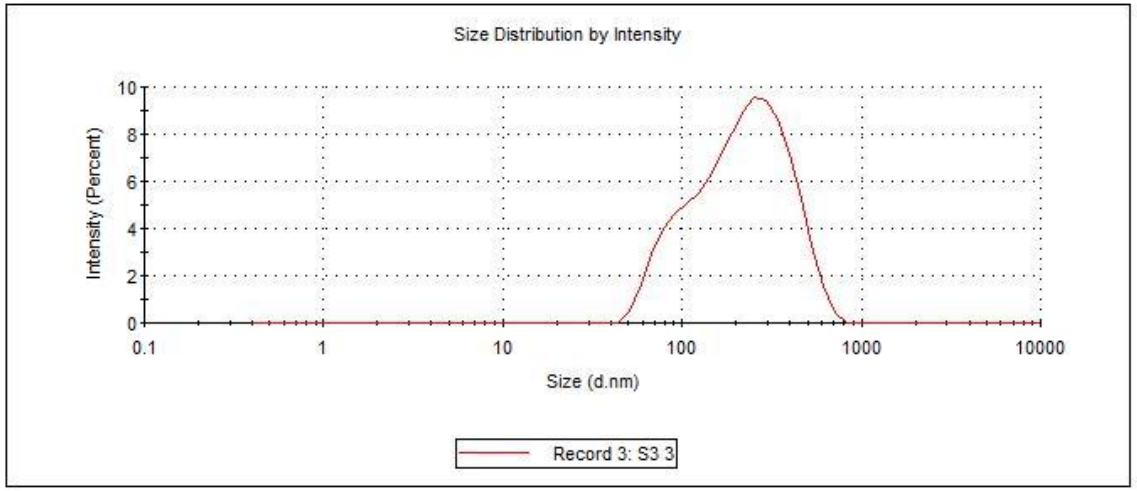


**Figure 144a, b**: Particle size and Zeta potential of Celecoxib (CXB)-loaded polymeric NPs **CXB-43 NPs**

***a) Particle size***

| | | Size (d.nm): | % Intensity: | St Dev (d.nm): |
|---|---|---|---|---|
| Z-Average (d.nm): 183.9 | Peak 1: | 243.3 | 100.0 | 134.5 |
| PdI: 0.257 | Peak 2: | 0.000 | 0.0 | 0.000 |
| Intercept: 0.942 | Peak 3: | 0.000 | 0.0 | 0.000 |
| Result quality : Good | | | | |



b) ***Zeta potential***

| | | Mean (mV) | Area (%) | St Dev (mV) |
|---|---|---|---|---|
| Zeta Potential (mV): -24.2 | Peak 1: | -24.2 | 100.0 | 5.32 |
| Zeta Deviation (mV): 5.32 | Peak 2: | 0.00 | 0.0 | 0.00 |
| Conductivity (mS/cm): 0.0142 | Peak 3: | 0.00 | 0.0 | 0.00 |

**Result quality :** Good

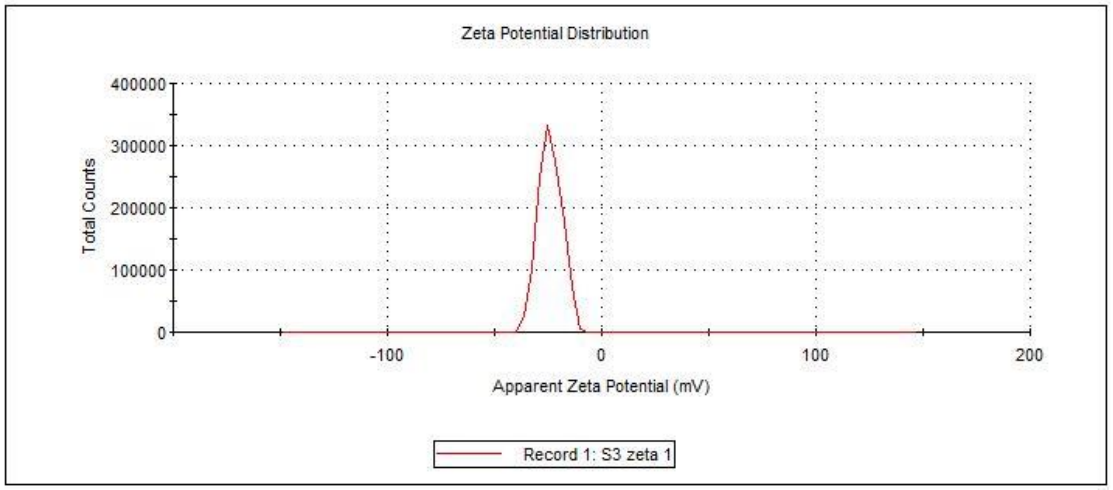
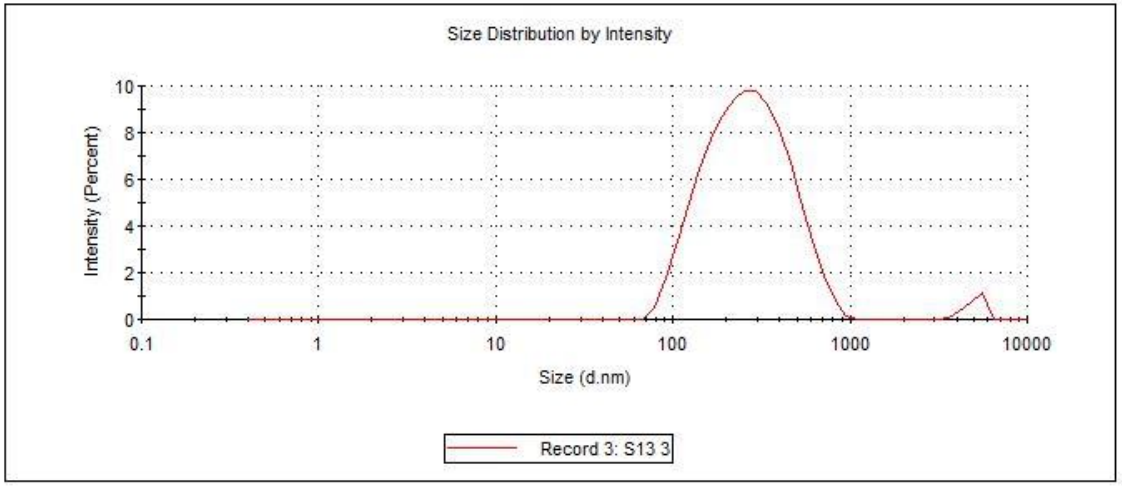


**Figure 145a, b**: Particle size and Zeta potential of Celecoxib (CXB)-loaded polymeric NPs **CXB-44 NPs**

***a) Particle size***

| | | Size (d.nm): | % Intensity: | St Dev (d.nm): |
|---|---|---|---|---|
| Z-Average (d.nm): 245.7 | Peak 1: | 294.5 | 97.7 | 154.4 |
| PdI: 0.258 | Peak 2: | 5033 | 2.3 | 591.6 |
| Intercept: 0.959 | Peak 3: | 0.000 | 0.0 | 0.000 |
| Result quality : Good | | | | |



***b) Zeta potential***

| | | Mean (mV) | Area (%) | St Dev (mV) |
|---|---|---|---|---|
| Zeta Potential (mV): | -37.9 | Peak 1: -37.9 | 100.0 | 4.44 |
| Zeta Deviation (mV): | 4.44 | Peak 2: 0.00 | 0.0 | 0.00 |
| Conductivity (mS/cm): | 0.0113 | Peak 3: 0.00 | 0.0 | 0.00 |

Result quality : Good

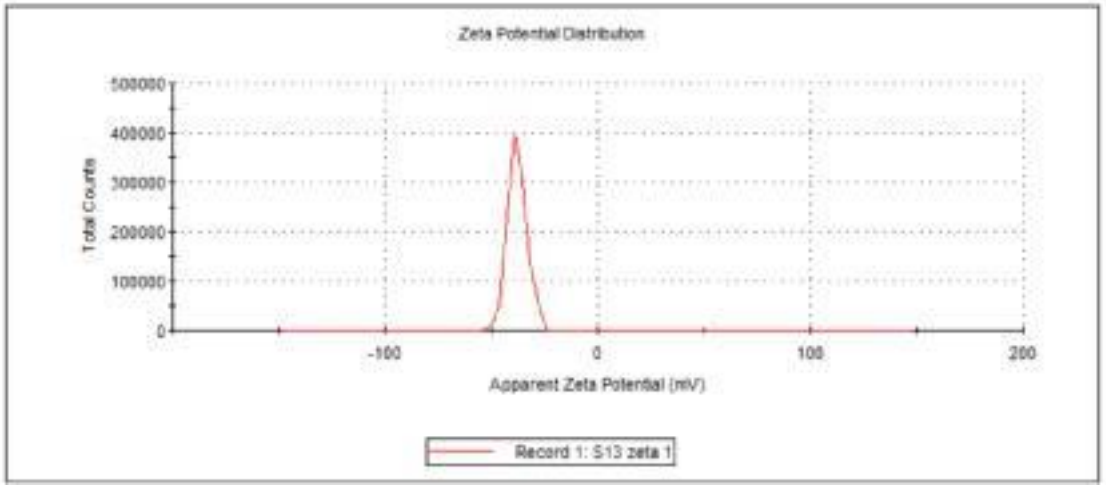
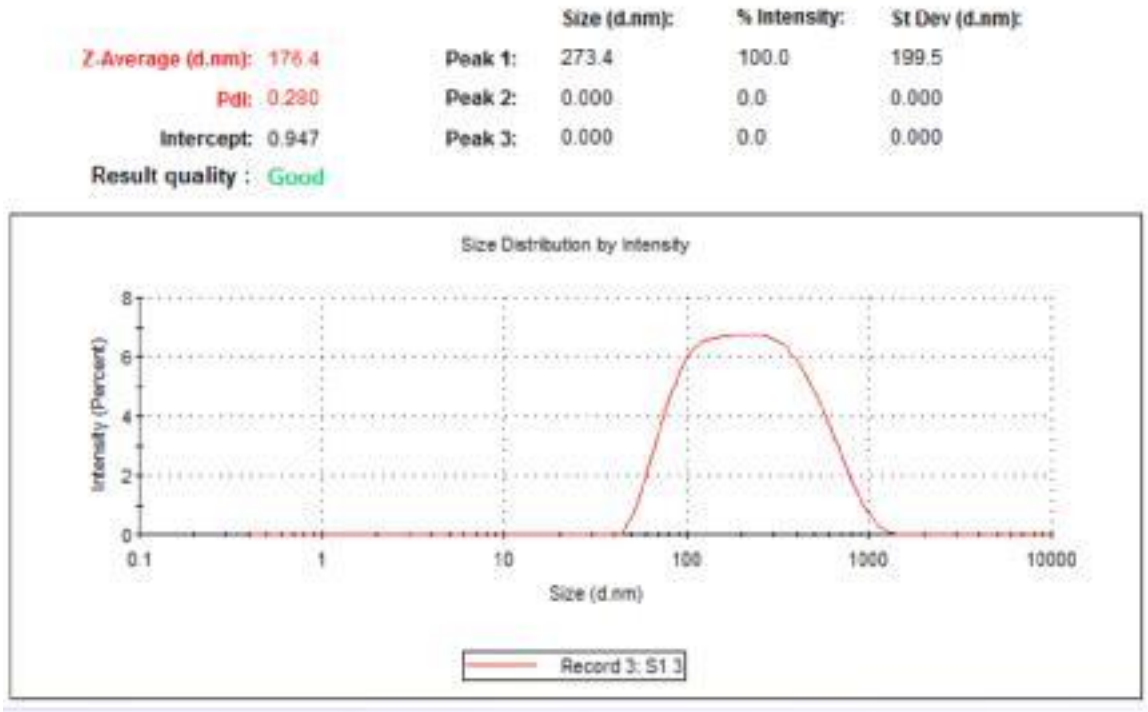


**Figure 146a, b**: Particle size and Zeta potential of Celecoxib (CXB)-loaded polymeric NPs **CXB-45 NPs:**

***a) Particle size***



b) ***Zeta potential***

| | | Mean (mV) | Area (%) | St Dev (mV) |
|---|---|---|---|---|
| Zeta Potential (mV): -32.9 | Peak 1: | -32.9 | 100.0 | 4.57 |
| Zeta Deviation (mV): 4.57 | Peak 2: | 0.00 | 0.0 | 0.00 |
| Conductivity (mS/cm): 0.00753 | Peak 3: | 0.00 | 0.0 | 0.00 |

**Result quality :** Good

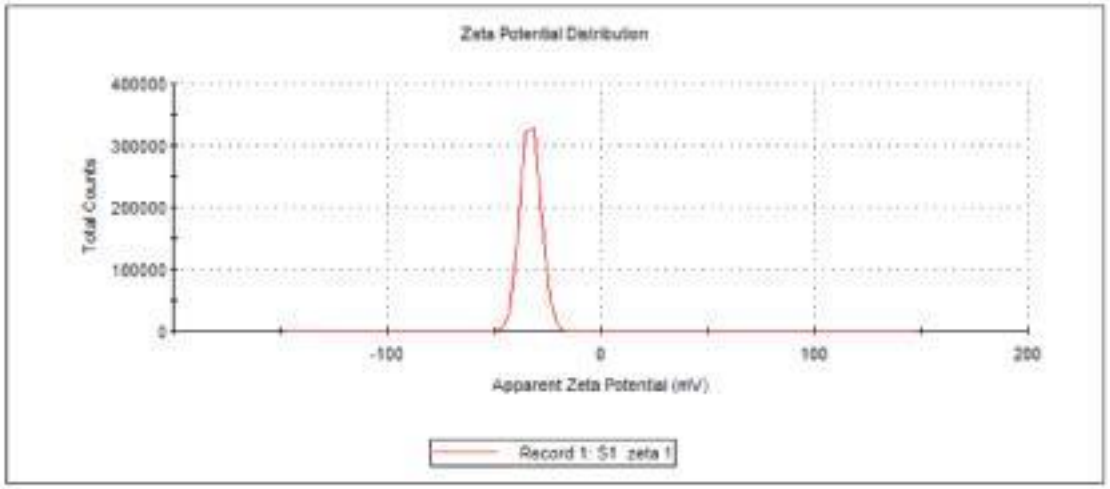
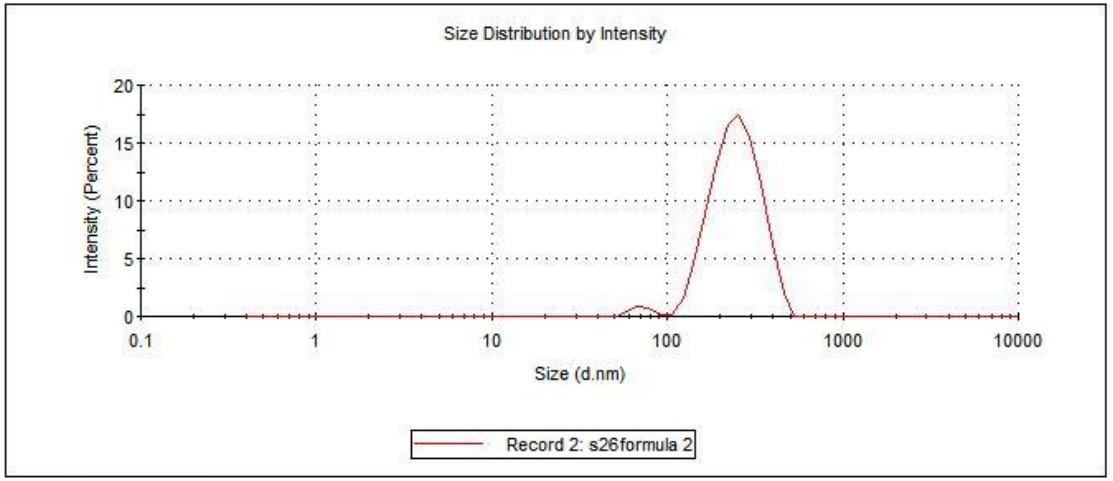


**Figure 147a, b**: Particle size and Zeta potential of Celecoxib (CXB)-loaded polymeric NPs **CXB-46 NPs**

***a) Particle size***

| | | | Size (d.nm): | % Intensity: | St Dev (d.nm): |
|---|---|---|---|---|---|
| Z-Average (d.nm): | 265.2 | Peak 1: | 254.2 | 97.5 | 75.63 |
| PdI: | 0.304 | Peak 2: | 74.21 | 2.5 | 12.75 |
| Intercept: | 0.965 | Peak 3: | 0.000 | 0.0 | 0.000 |
| Result quality : | Good | | | | |



***b) Zeta potential***

| | | Mean (mV) | Area (%) | St Dev (mV) |
|---|---|---|---|---|
| Zeta Potential (mV): -27.0 | Peak 1: | -27.4 | 98.0 | 5.74 |
| Zeta Deviation (mV): 6.53 | Peak 2: | -3.12 | 2.0 | 2.88 |
| Conductivity (mS/cm): 0.0101 | Peak 3: | 0.00 | 0.0 | 0.00 |

**Result quality :** Good