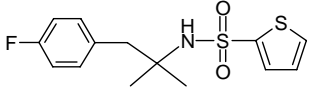
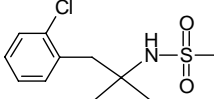
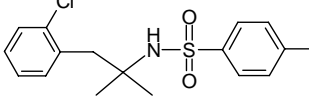
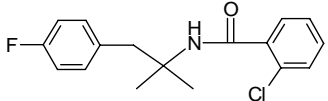
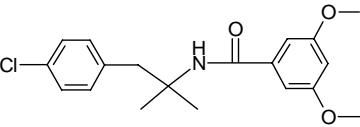
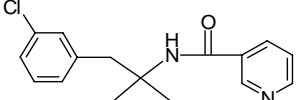
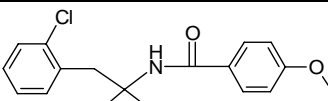
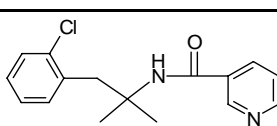
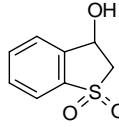
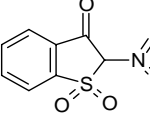
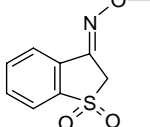
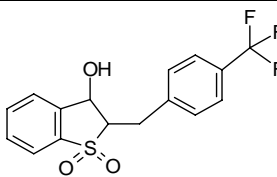
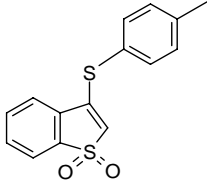
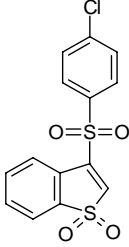
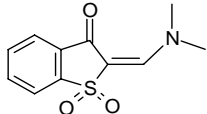
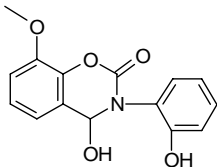
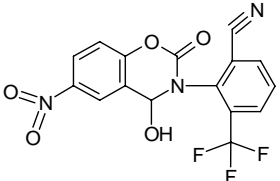
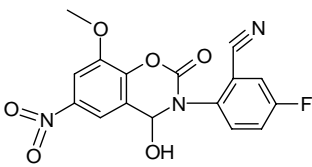
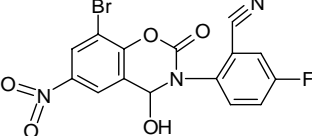
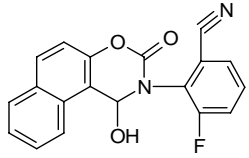
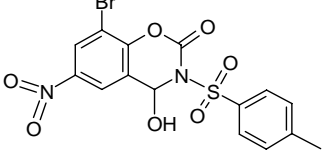


Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

| ID Number | Structure | Formula | M.W. | m.p. (°C) | Remarks |
|-----------|---|---|--------|-----------|--------------------|
| Z | SELECTED NON-PHOSPHORUS COMPOUNDS | | | | |
| Z-01-1035 |  | C ₁₄ H ₁₆ FNO ₂ S ₂ | 313,42 | 67-69 | colorless plates |
| Z-01-1048 |  | C ₁₁ H ₁₆ ClNO ₂ S | 261,77 | 94-97 | colorless needles |
| Z-01-1050 |  | C ₁₇ H ₂₀ ClNO ₂ S | 337,87 | 106-107 | colorless plates |
| Z-01-1106 |  | C ₁₇ H ₁₇ ClFNO | 305,78 | 112-113 | colorless needles |
| Z-01-1119 |  | C ₁₉ H ₂₂ ClNO ₃ | 347,85 | 147-148 | colorless needles |
| Z-01-1127 |  | C ₁₆ H ₁₇ ClN ₂ O | 288,78 | 90-91 | colorless needles |
| Z-01-1134 |  | C ₁₈ H ₂₀ ClNO ₂ | 317,82 | 91-92 | colorless needles |
| Z-01-1137 |  | C ₁₆ H ₁₇ ClN ₂ O | 288,78 | 60-61 | colorless crystals |
| Z-02-1528 |  | C ₈ H ₈ O ₃ S | 184,22 | 70-71 | colorless crystals |
| Z-02-1530 |  | C ₈ H ₅ NO ₅ S | 227,20 | 207-208 | colorless crystals |
| Z-02-1532 |  | C ₉ H ₉ NO ₃ S | 211,24 | 146-147 | colorless needles |
| Z-02-1544 |  | C ₁₆ H ₁₃ F ₃ O ₃ S | 342,34 | 113-115 | colorless crystals |

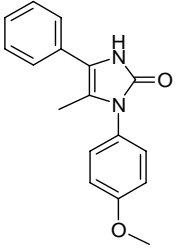
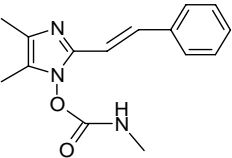
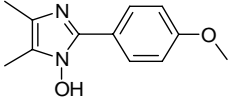
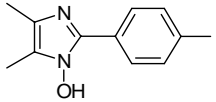
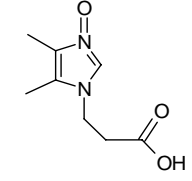
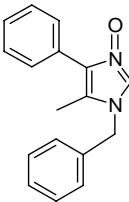
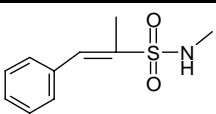
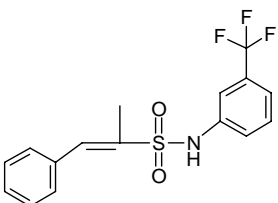
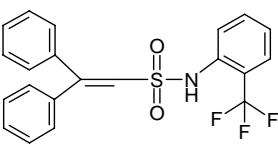
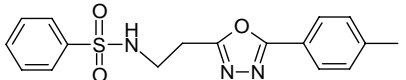
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

| | | | | | |
|-----------|---|---|--------|----------|----------------------|
| Z-02-1554 |  | C ₁₅ H ₁₂ O ₂ S ₂ | 288,39 | 117-118 | colorless needles |
| Z-02-1558 |  | C ₁₄ H ₉ ClO ₄ S ₂ | 340,81 | 190-192 | colorless crystals |
| Z-02-5034 |  | C ₁₁ H ₁₁ NO ₃ S | 237,28 | 211-215 | yellow crystals |
| Z-03-1055 |  | C ₁₅ H ₁₃ NO ₅ | 287,27 | 146-148 | yellow crystals |
| Z-03-1065 |  | C ₁₆ H ₈ F ₃ N ₃ O ₅ | 379,25 | 170-171 | pale yellow crystals |
| Z-03-1077 |  | C ₁₆ H ₁₀ FN ₃ O ₆ | 359,27 | over 270 | salmon-pink needles |
| Z-03-1083 |  | C ₁₅ H ₇ BrFN ₃ O ₅ | 408,14 | 254-255 | yellow crystals |
| Z-03-1088 |  | C ₁₉ H ₁₁ FN ₂ O ₃ | 334,31 | 232-233 | pale yellow solid |
| Z-03-1096 |  | C ₁₅ H ₁₁ BrN ₂ O ₇ S | 443,23 | 202-203 | pale yellow crystals |

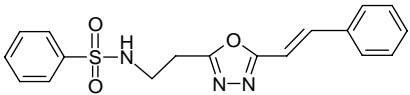
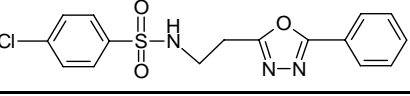
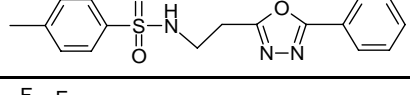
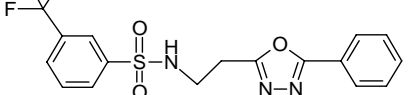
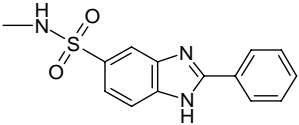
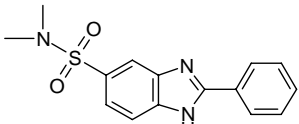
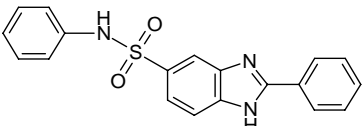
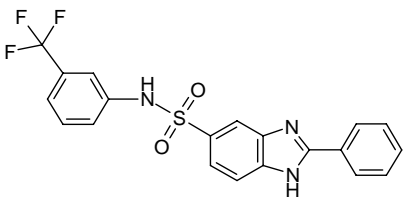
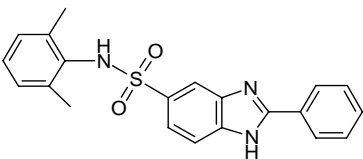
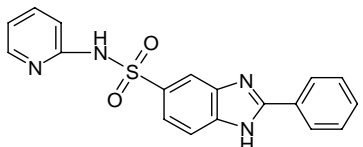
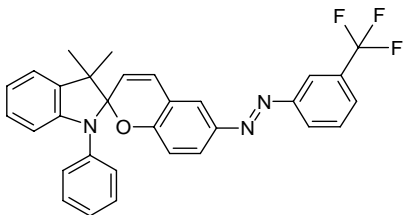
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

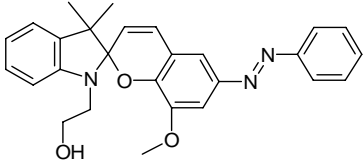
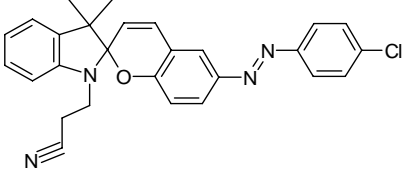
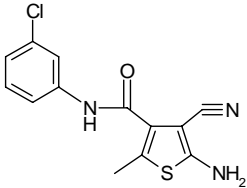
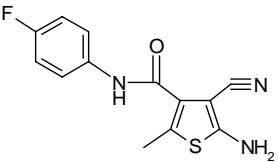
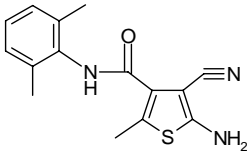
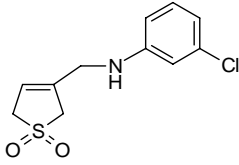
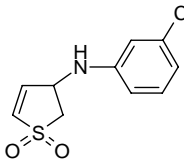
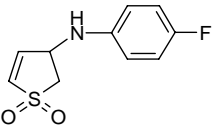
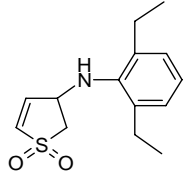
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|------------|--|---|--------|----------|------------------------|
| Z-03-1342 | | C ₁₄ H ₁₀ ClNO ₄ | 291,69 | over 270 | colorless needles |
| Z-03-1344 | | C ₁₅ H ₁₂ ClNO ₄ | 305,72 | 107-108 | orange needles |
| Z-03-1346 | | C ₁₄ H ₉ Cl ₂ NO ₃ | 310,14 | 143-145 | pale yellow needles |
| Z-03-1349 | | C ₁₄ H ₉ Cl ₂ NO ₄ | 326,14 | 265-266 | pale yellow crystals |
| Z-03-1355 | | C ₁₅ H ₁₁ ClN ₂ O ₆ | 350,72 | 223-225 | orange crystals |
| Z-03-1370 | | C ₁₅ H ₁₀ BrCl ₂ NO ₄ | 419,06 | 148-149 | salmon-pink needles |
| Z-03-B1657 | | C ₁₆ H ₇ ClF ₃ N ₃ O ₅ | 413,70 | 219-220 | orange-red crystals |
| Z-04-0076 | | C ₄ H ₆ N ₂ O ₂ | 114,10 | 206-208 | colorless crystals |
| Z-04-0215 | | C ₈ H ₁₂ N ₂ O ₃ | 184,20 | 89-90 | cream-colored crystals |
| Z-04-0216 | | C ₁₇ H ₁₆ N ₂ O | 264,33 | 109-111 | cream-colored plates |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

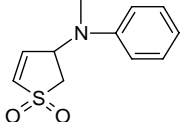
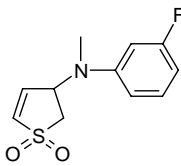
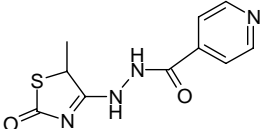
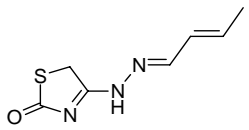
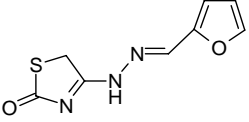
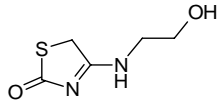
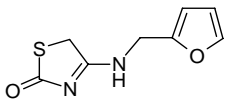
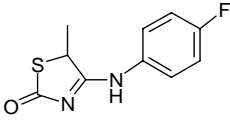
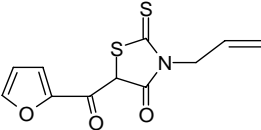
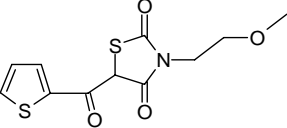
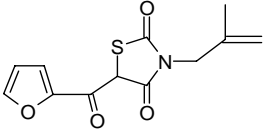
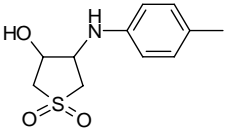
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|------------|---|--|--------|---------|------------------------|
| Z-04-0218 |  | C ₁₇ H ₁₆ N ₂ O ₂ | 280,33 | 245-246 | colorless crystals |
| Z-04-1376 |  | C ₁₅ H ₁₇ N ₃ O ₂ | 271,32 | 135-136 | colorless crystals |
| Z-04-1720 |  | C ₁₂ H ₁₄ N ₂ O ₂ | 218,26 | 110-112 | cream-colored crystals |
| Z-04-2989 |  | C ₁₂ H ₁₄ N ₂ O | 202,26 | 208-209 | white solid |
| Z-04-2993 |  | C ₈ H ₁₂ N ₂ O ₃ | 184,20 | 153-156 | colorless crystals |
| Z-04-2994 |  | C ₁₇ H ₁₆ N ₂ O | 264,33 | 197-200 | colorless crystals |
| Z-05-1566 |  | C ₁₀ H ₁₃ NO ₂ S | 211,28 | 105-106 | colorless crystals |
| Z-05-1568 |  | C ₁₆ H ₁₄ F ₃ NO ₂ S | 341,35 | 61-63 | colorless crystals |
| Z-05-C0045 |  | C ₂₁ H ₁₆ F ₃ NO ₂ S | 403,43 | 75-76 | colorless crystals |
| Z-06-1925 |  | C ₁₇ H ₁₇ N ₃ O ₃ S | 343,41 | 121-122 | colorless crystals |

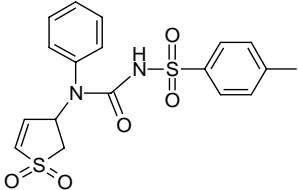
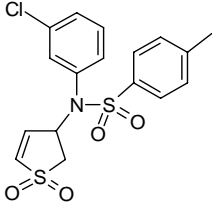
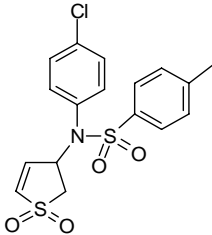
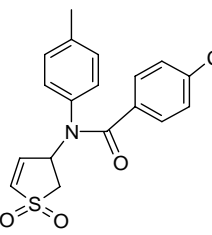
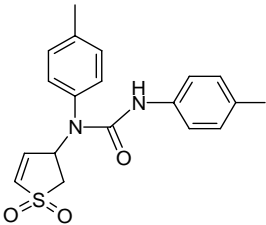
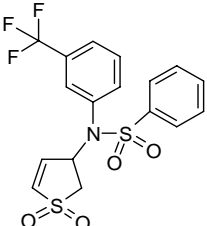
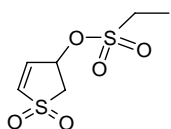
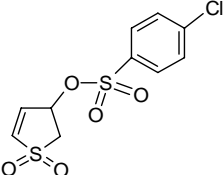
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

| | | | | | |
|-----------|---|---------------|--------|---------|------------------------|
| Z-06-1926 |  | C18H17N3O3S | 355,42 | 119-120 | colorless crystals |
| Z-06-1927 |  | C16H14ClN3O3S | 363,83 | 154-155 | colorless crystals |
| Z-06-1928 |  | C17H17N3O3S | 343,41 | 143-144 | colorless needles |
| Z-06-1929 |  | C17H14F3N3O3S | 397,38 | 105-106 | cream-colored crystals |
| Z-07-1573 |  | C14H13N3O2S | 287,34 | 238-240 | colorless solid |
| Z-07-1574 |  | C15H15N3O2S | 301,37 | 133-139 | colorless crystals |
| Z-07-1575 |  | C19H15N3O2S | 349,41 | 208-209 | colorless crystals |
| Z-07-1580 |  | C20H14F3N3O2S | 417,41 | 239-240 | colorless crystals |
| Z-07-1581 |  | C21H19N3O2S | 377,47 | 315-316 | colorless plates |
| Z-07-1583 |  | C18H14N4O2S | 350,40 | 208-210 | colorless crystals |
| Z-08-1603 |  | C31H24F3N3O | 511,55 | 135-136 | yellow crystals |

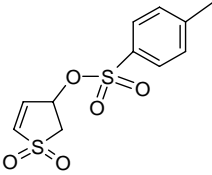
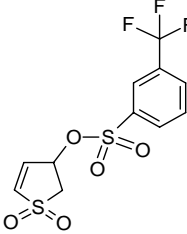
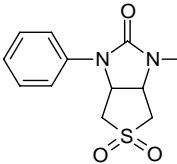
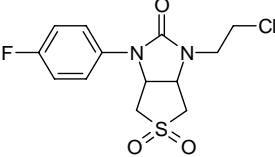
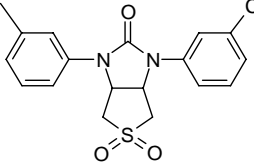
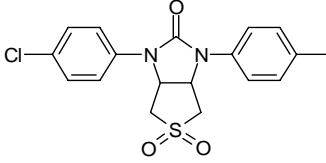
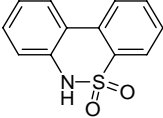
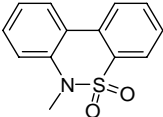
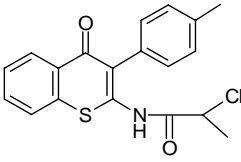
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|-----------|---|---|--------|---------|--------------------|
| Z-08-1606 |  | C ₂₇ H ₂₇ N ₃ O ₃ | 441,53 | 159-160 | yellow crystals |
| Z-08-1610 |  | C ₂₇ H ₂₃ ClN ₄ O | 454,96 | 125-127 | yellow crystals |
| Z-09-1625 |  | C ₁₃ H ₁₀ ClN ₃ OS | 291,76 | 230-232 | colorless crystals |
| Z-09-1626 |  | C ₁₃ H ₁₀ FN ₃ OS | 275,31 | 227-229 | colorless crystals |
| Z-09-1629 |  | C ₁₅ H ₁₅ N ₃ OS | 285,37 | 223-225 | colorless crystals |
| Z-10-1645 |  | C ₁₁ H ₁₂ ClNO ₂ S | 257,74 | 132-133 | colorless crystals |
| Z-11-1650 |  | C ₁₀ H ₁₀ ClNO ₂ S | 243,71 | 189-190 | colorless plates |
| Z-11-1651 |  | C ₁₀ H ₁₀ FNO ₂ S | 227,26 | 131-132 | colorless plates |
| Z-11-1653 |  | C ₁₄ H ₁₉ NO ₂ S | 265,38 | 64-67 | colorless crystals |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

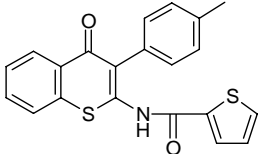
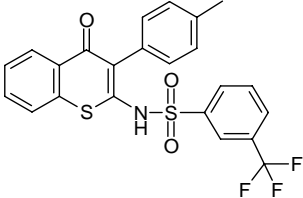
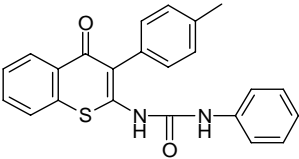
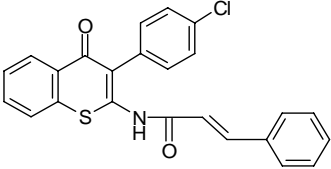
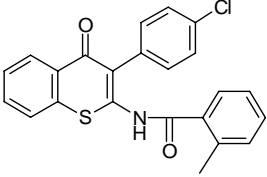
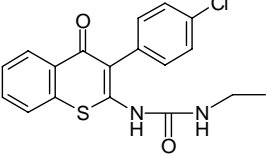
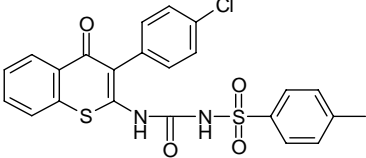
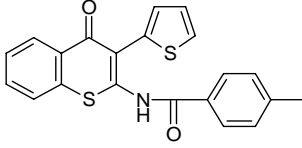
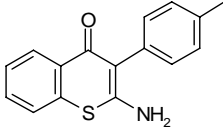
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|-----------|---|---|--------|---------|----------------------|
| Z-11-1654 |  | C ₁₁ H ₁₃ NO ₂ S | 223,30 | 80-81 | colorless needles |
| Z-11-1656 |  | C ₁₁ H ₁₂ FNO ₂ S | 241,29 | 88-95 | colorless crystals |
| Z-12-1697 |  | C ₁₀ H ₁₀ N ₄ O ₂ S | 250,28 | 185-187 | colorless crystals |
| Z-12-1947 |  | C ₇ H ₉ N ₃ OS | 183,23 | 183-186 | colorless crystals |
| Z-12-1956 |  | C ₈ H ₇ N ₃ O ₂ S | 209,23 | 200-202 | colorless crystals |
| Z-13-1662 |  | C ₅ H ₈ N ₂ O ₂ S | 160,20 | 163-166 | pale yellow crystals |
| Z-13-1667 |  | C ₈ H ₈ N ₂ O ₂ S | 196,23 | 130-131 | pale yellow needles |
| Z-13-1675 |  | C ₁₀ H ₉ FN ₂ OS | 224,26 | 205-210 | pale yellow crystals |
| Z-14-1971 |  | C ₁₁ H ₉ NO ₃ S ₂ | 267,33 | 73-76 | yellow crystals |
| Z-14-2043 |  | C ₁₁ H ₁₁ NO ₄ S ₂ | 285,34 | 104-108 | yellow needles |
| Z-14-2046 |  | C ₁₂ H ₁₁ NO ₄ S | 265,29 | 106-110 | pale yellow crystals |
| Z-15-1989 |  | C ₁₁ H ₁₅ NO ₃ S | 241,31 | 173-174 | colorless plates |

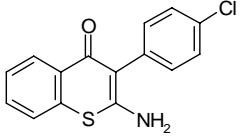
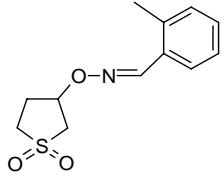
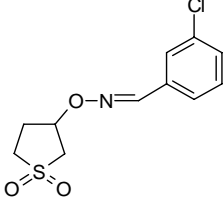
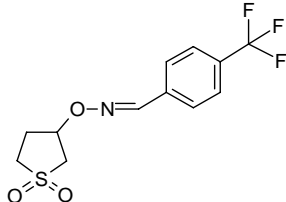
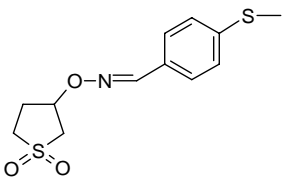
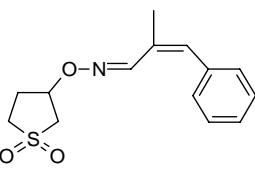
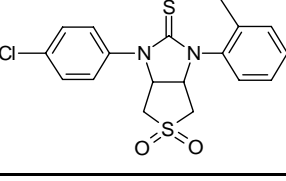
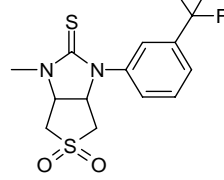
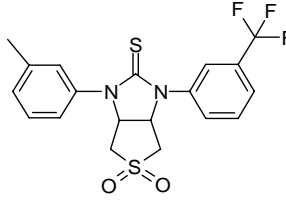
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|-----------|---|---|--------|---------|------------------------|
| Z-16-1996 |  | C ₁₈ H ₁₈ N ₂ O ₅ S ₂ | 406,48 | 239-241 | colorless needles |
| Z-16-1999 |  | C ₁₇ H ₁₆ ClNO ₄ S ₂ | 397,90 | 155-156 | colorless crystals |
| Z-16-2002 |  | C ₁₇ H ₁₆ ClNO ₄ S ₂ | 397,90 | 168-169 | colorless crystals |
| Z-16-2008 |  | C ₁₈ H ₁₆ ClNO ₃ S | 361,85 | 168-169 | colorless needles |
| Z-16-2011 |  | C ₁₉ H ₂₀ N ₂ O ₃ S | 356,45 | 186-188 | cream-colored crystals |
| Z-16-2012 |  | C ₁₇ H ₁₄ F ₃ NO ₄ S ₂ | 417,43 | 150-151 | colorless crystals |
| Z-17-2014 |  | C ₆ H ₁₀ O ₅ S ₂ | 226,27 | 71-72 | colorless crystals |
| Z-17-2016 |  | C ₁₀ H ₉ ClO ₅ S ₂ | 308,76 | 119-120 | colorless crystals |

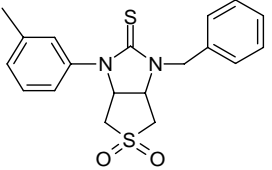
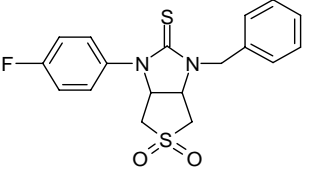
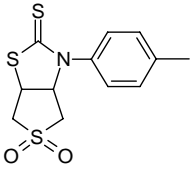
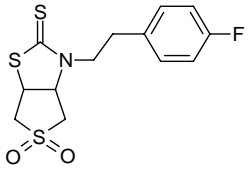
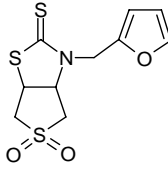
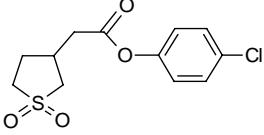
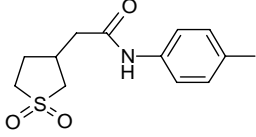
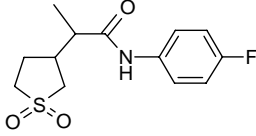
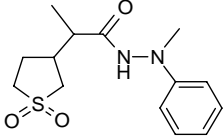
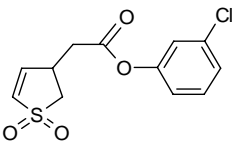
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

| | | | | | |
|-----------|---|---|--------|---------|----------------------|
| Z-17-2017 |  | C ₁₁ H ₁₂ O ₅ S ₂ | 288,34 | 135-136 | colorless plates |
| Z-17-2018 |  | C ₁₁ H ₉ F ₃ O ₅ S ₂ | 342,31 | 105-106 | colorless needles |
| Z-18-2019 |  | C ₁₂ H ₁₄ N ₂ O ₃ S | 266,32 | 188-189 | colorless needles |
| Z-18-2020 |  | C ₁₃ H ₁₄ ClFN ₂ O ₃ S | 332,78 | 139-141 | colorless crystals |
| Z-18-2027 |  | C ₁₈ H ₁₇ ClN ₂ O ₃ S | 376,86 | 168-169 | colorless needles |
| Z-18-2028 |  | C ₁₈ H ₁₇ ClN ₂ O ₃ S | 376,86 | 198-200 | colorless crystals |
| Z-19-2535 |  | C ₁₂ H ₉ NO ₂ S | 231,28 | 190-192 | cream-colored plates |
| Z-19-2537 |  | C ₁₃ H ₁₁ NO ₂ S | 245,30 | 109-110 | colorless crystals |
| Z-20-2081 |  | C ₁₉ H ₁₆ ClNO ₂ S | 357,86 | 187-188 | colorless needles |

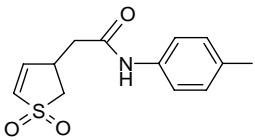
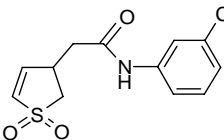
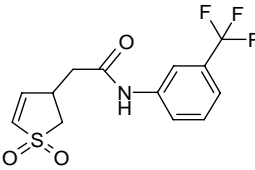
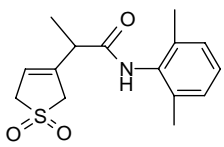
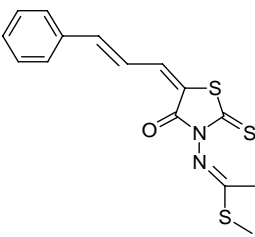
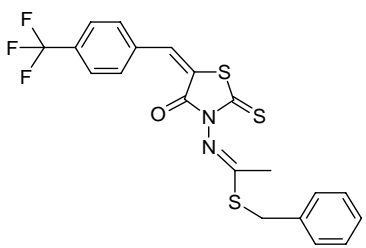
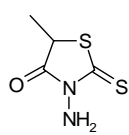
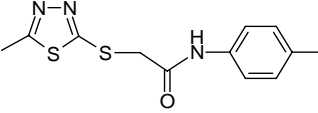
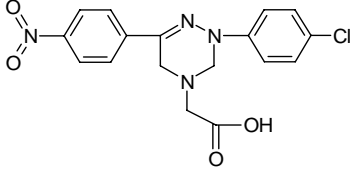
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|-----------|---|--|--------|---------|----------------------|
| Z-20-2084 |  | C ₂₁ H ₁₅ NO ₂ S ₂ | 377,49 | 216-218 | pale yellow needles |
| Z-20-2086 |  | C ₂₃ H ₁₆ F ₃ NO ₃ S ₂ | 475,51 | 189-190 | yellow crystals |
| Z-20-2088 |  | C ₂₃ H ₁₈ N ₂ O ₂ S | 386,48 | 209-210 | colorless crystals |
| Z-20-2093 |  | C ₂₄ H ₁₆ ClNO ₂ S | 417,92 | 217-218 | pale yellow crystals |
| Z-20-2094 |  | C ₂₃ H ₁₆ ClNO ₂ S | 405,91 | 181-182 | yellowish needles |
| Z-20-2097 |  | C ₁₈ H ₁₅ ClN ₂ O ₂ S | 358,85 | 224-225 | colorless crystals |
| Z-20-2099 |  | C ₂₃ H ₁₇ ClN ₂ O ₄ S ₂ | 484,98 | 210-211 | yellowish crystals |
| Z-20-2101 |  | C ₂₁ H ₁₅ NO ₂ S ₂ | 377,49 | 169-171 | yellowish crystals |
| Z-20-2992 |  | C ₁₆ H ₁₃ NOS | 267,35 | 209-210 | colorless crystals |

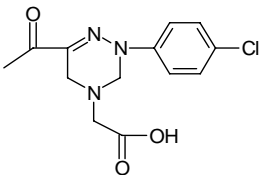
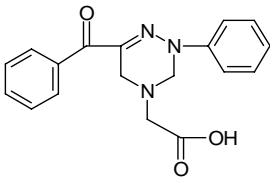
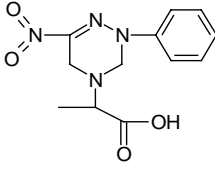
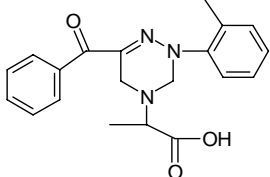
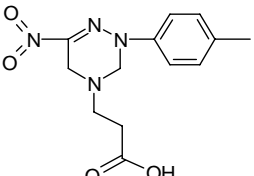
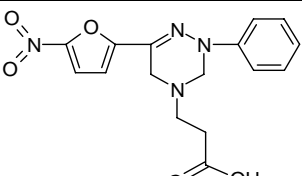
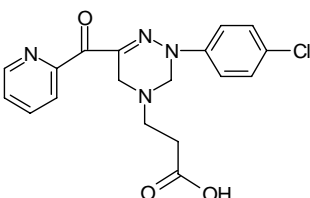
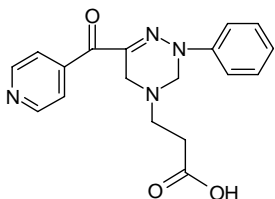
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|------------|---|---|--------|---------|--------------------|
| Z-20-B2101 |  | C ₁₅ H ₁₀ ClNOS | 287,77 | 249-251 | colorless crystals |
| Z-21-2103 |  | C ₁₂ H ₁₅ NO ₃ S | 253,32 | 68-69 | colorless crystals |
| Z-21-2106 |  | C ₁₁ H ₁₂ ClNO ₃ S | 273,74 | 69-70 | colorless crystals |
| Z-21-2109 |  | C ₁₂ H ₁₂ F ₃ NO ₃ S | 307,29 | 83-84 | colorless crystals |
| Z-21-2110 |  | C ₁₂ H ₁₅ NO ₃ S ₂ | 285,39 | 121-122 | colorless crystals |
| Z-21-2112 |  | C ₁₄ H ₁₇ NO ₃ S | 279,36 | 92-93 | colorless crystals |
| Z-22-2116 |  | C ₁₈ H ₁₇ ClN ₂ O ₂ S ₂ | 392,93 | 252-253 | colorless crystals |
| Z-22-2132 |  | C ₁₃ H ₁₃ F ₃ N ₂ O ₂ S ₂ | 350,38 | 174-175 | colorless crystals |
| Z-22-2135 |  | C ₁₉ H ₁₇ F ₃ N ₂ O ₂ S ₂ | 426,48 | 227-228 | colorless crystals |

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| Z-22-2139 |  | C ₁₉ H ₂₀ N ₂ O ₂ S ₂ | 372,51 | 220-221 | colorless crystals |
| Z-22-2142 |  | C ₁₈ H ₁₇ FN ₂ O ₂ S ₂ | 376,47 | 221-222 | colorless crystals |
| Z-23-2118 |  | C ₁₂ H ₁₃ NO ₂ S ₃ | 299,43 | 258-259 | colorless plates |
| Z-23-2145 |  | C ₁₃ H ₁₄ FNO ₂ S ₃ | 331,45 | 181-182 | colorless plates |
| Z-23-2146 |  | C ₁₀ H ₁₁ NO ₃ S ₃ | 289,40 | 182-183 | colorless crystals |
| Z-24-2148 |  | C ₁₂ H ₁₃ ClO ₄ S | 288,75 | 89-90 | colorless needles |
| Z-24-2152 |  | C ₁₃ H ₁₇ NO ₃ S | 267,35 | 116-117 | colorless crystals |
| Z-24-2158 |  | C ₁₃ H ₁₆ FNO ₃ S | 285,34 | 159-160 | colorless crystals |
| Z-24-2159 |  | C ₁₄ H ₂₀ N ₂ O ₃ S | 296,39 | 131-132 | colorless needles |
| Z-25-2161 |  | C ₁₂ H ₁₁ ClO ₄ S | 286,74 | 96-97 | colorless crystals |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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| Z-25-2164 |  | C ₁₃ H ₁₅ NO ₃ S | 265,33 | 130-131 | colorless crystals |
| Z-25-2165 |  | C ₁₂ H ₁₂ ClNO ₃ S | 285,75 | 121-122 | colorless crystals |
| Z-25-2167 |  | C ₁₃ H ₁₂ F ₃ NO ₃ S | 319,30 | 134-135 | colorless crystals |
| Z-26-2172 |  | C ₁₅ H ₁₉ NO ₃ S | 293,39 | 166-167 | colorless crystals |
| Z-27-2188 |  | C ₁₅ H ₁₄ N ₂ O ₃ S | 334,48 | 148-152 | pale yellow crystals |
| Z-27-2193 |  | C ₂₀ H ₁₅ F ₃ N ₂ O ₃ S | 452,54 | 125-126 | salmon-pink crystals |
| Z-27-2998 |  | C ₄ H ₆ N ₂ O ₃ S | 162,23 | 64-65 | colorless crystals |
| Z-28-2209 |  | C ₁₂ H ₁₃ N ₃ O ₃ S | 279,38 | 153-154 | colorless plates |
| Z-29-2444 |  | C ₁₇ H ₁₅ ClN ₄ O ₄ | 374,79 | 172-174 | orange-red crystals |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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| Z-29-2447 |  | C ₁₃ H ₁₄ ClN ₃ O ₃ | 295,73 | 151-154 | yellow crystals |
| Z-29-2448 |  | C ₁₈ H ₁₇ N ₃ O ₃ | 323,35 | 133-136 | yellow crystals |
| Z-29-2450 |  | C ₁₂ H ₁₄ N ₄ O ₄ | 278,27 | 163-164 | yellow crystals |
| Z-29-2455 |  | C ₂₀ H ₂₁ N ₃ O ₃ | 351,41 | 127-128 | pale yellow crystals |
| Z-29-2467 |  | C ₁₃ H ₁₆ N ₄ O ₄ | 292,30 | 159-160 | orange crystals |
| Z-29-2469 |  | C ₁₆ H ₁₆ N ₄ O ₅ | 344,33 | 165-166 | orange needles |
| Z-29-2475 |  | C ₁₈ H ₁₇ ClN ₄ O ₃ | 372,81 | 178-179 | yellow crystals |
| Z-29-2476 |  | C ₁₈ H ₁₈ N ₄ O ₃ | 338,37 | 184-185 | yellow needles |

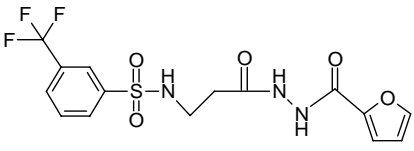
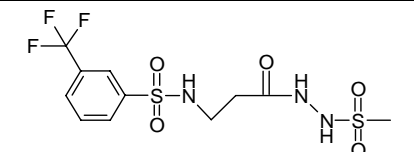
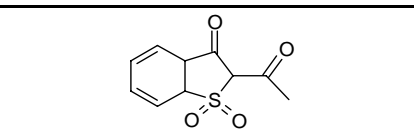
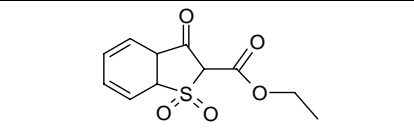
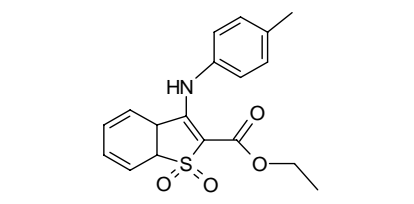
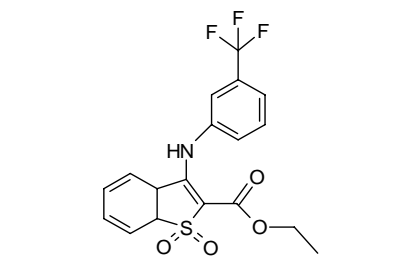
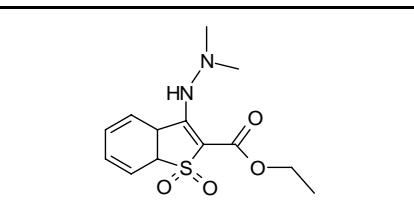
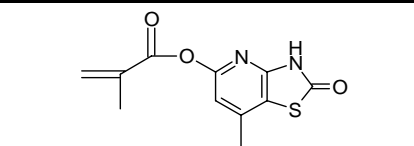
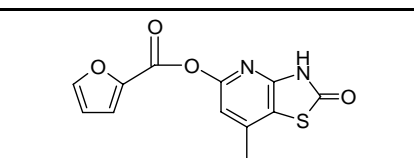
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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| Z-29-2477 | | C ₂₀ H ₂₁ N ₃ O ₃ | 351,41 | 153-154 | colorless needles |
| Z-29-2478 | | C ₂₅ H ₂₂ N ₄ O ₅ | 458,48 | 137-138 | orange-yellow crystals |
| Z-29-2480 | | C ₂₃ H ₂₁ N ₃ O ₃ S | 419,51 | 165-166 | pale yellow plates |
| Z-30-2540 | | C ₂₀ H ₁₆ ClN ₃ O ₂ S | 397,89 | 158-161 | orange plates |
| Z-30-2548 | | C ₂₁ H ₁₉ N ₃ O ₂ S | 377,47 | 140-143 | orange-red needles |
| Z-31-2551 | | C ₁₄ H ₁₃ N ₃ O ₄ S | 319,34 | 173-174 | pale yellow needles |
| Z-31-2557 | | C ₂₁ H ₁₉ N ₃ O ₄ S | 409,47 | 221-222 | orange crystals |

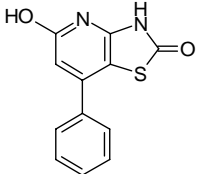
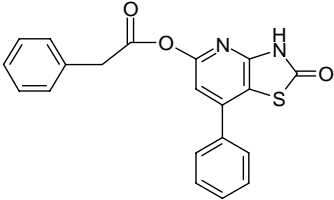
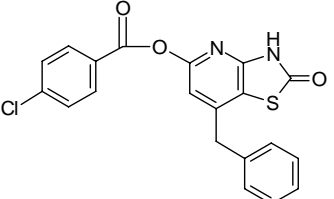
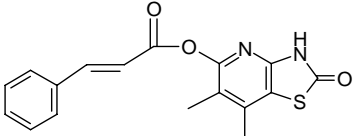
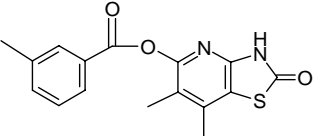
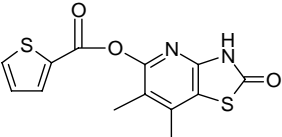
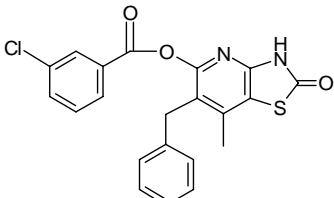
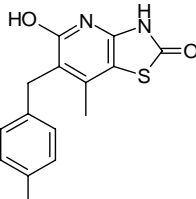
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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| Z-31-2562 | | C19H15ClN4O4S | 430,87 | 147-150 | 2 isomers pale yellow crystals |
| Z-31-2564 | | C21H18ClN3O4S | 443,91 | 216-220 | 2 isomers orange-yellow needles |
| Z-31-2565 | | C19H17N3O5S | 399,43 | 171-174 | pale pink plates |
| Z-32-1884 | | C11H16N4O3S2 | 316,40 | 169-170 | colorless plates |
| Z-32-1894 | | C15H17N3O5S2 | 383,45 | 149-150 | colorless crystals |
| Z-32-1898 | | C12H16Cl2N4O4S | 383,26 | 188-189 | colorless plates |
| Z-32-1902 | | C10H14ClN3O5S2 | 355,82 | 123-125 | colorless crystals |
| Z-32-1904 | | C12H18N4O4S | 314,37 | 198-199 | colorless needles |
| Z-32-1908 | | C13H19N3O3S | 297,38 | 150-151 | colorless crystals |
| Z-32-1909 | | C10H12F3N3O3S | 311,28 | 155-156 | colorless crystals |
| Z-32-1912 | | C17H16ClF3N4O4S | 464,85 | 182-183 | colorless crystals |
| Z-32-1914 | | C12H14F3N3O4S | 353,32 | 165-166 | colorless crystals |

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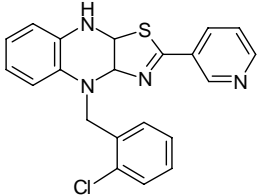
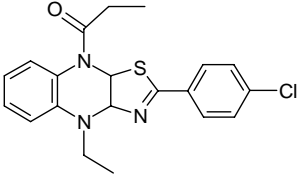
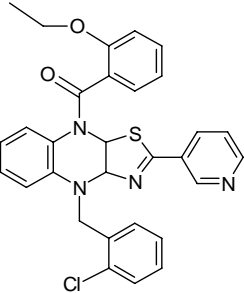
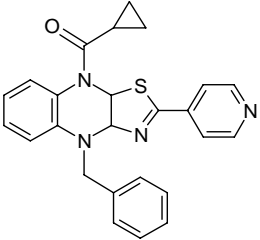
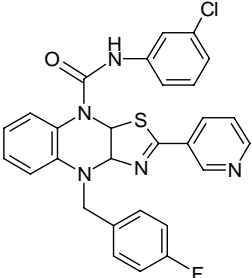
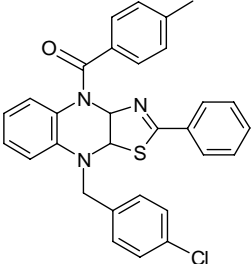
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| Z-32-1916 |  | C15H14F3N3O5S | 405,36 | 126-127 | colorless plates |
| Z-32-1917 |  | C11H14F3N3O5S2 | 389,37 | 139-140 | colorless crystals |
| Z-33-1535 |  | C10H10O4S | 226,25 | 164-168 | colorless crystals |
| Z-33-1548 |  | C11H12O5S | 256,28 | 132-136 | colorless crystals |
| Z-33-1549 |  | C18H19NO4S | 345,42 | 180-183 | colorless crystals |
| Z-33-1550 |  | C18H16F3NO4S | 399,39 | 175-178 | colorless crystals |
| Z-33-1552 |  | C13H18N2O4S | 298,36 | 134-135 | colorless crystals |
| Z-34-2580 |  | C11H10N2O3S | 250,28 | 117-118 | colorless needles |
| Z-34-2582 |  | C12H8N2O4S | 276,27 | 219-220 | colorless needles |

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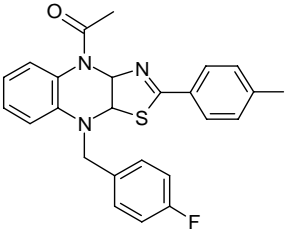
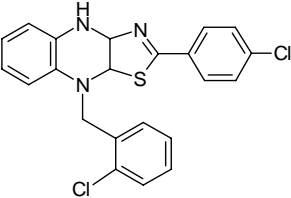
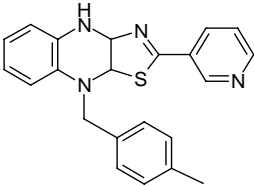
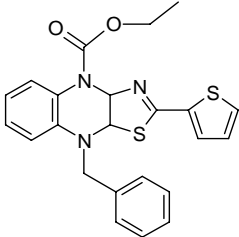
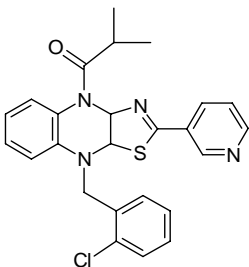
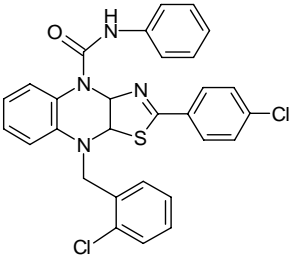
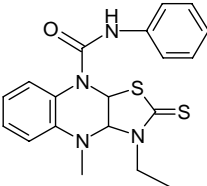
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| Z-34-2583 |  | C ₁₂ H ₈ N ₂ O ₂ S | 244,27 | 278-280 | yellowish crystals |
| Z-34-2584 |  | C ₂₀ H ₁₄ N ₂ O ₃ S | 362,41 | 206-207 | colorless needles |
| Z-34-2588 |  | C ₂₀ H ₁₃ ClN ₂ O ₃ S | 396,86 | 237-238 | colorless needles |
| Z-34-2592 |  | C ₁₇ H ₁₄ N ₂ O ₃ S | 326,38 | 238-239 | colorless plates |
| Z-34-2593 |  | C ₁₆ H ₁₄ N ₂ O ₃ S | 314,37 | 203-204 | colorless crystals |
| Z-34-2595 |  | C ₁₃ H ₁₀ N ₂ O ₃ S ₂ | 306,36 | 240-241 | colorless needles |
| Z-34-2598 |  | C ₂₁ H ₁₅ ClN ₂ O ₃ S | 410,88 | 199-201 | colorless needles |
| Z-34-2600 |  | C ₁₅ H ₁₄ N ₂ O ₂ S | 286,36 | 300-301 | cream-colored crystals |

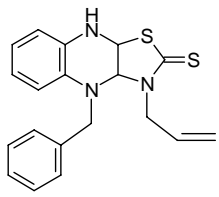
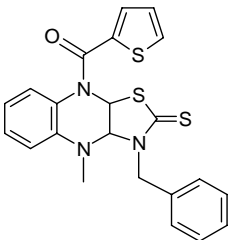
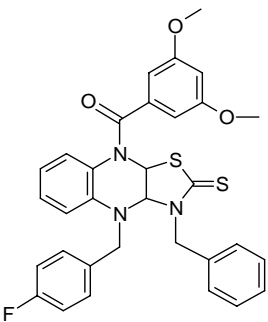
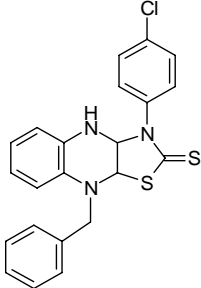
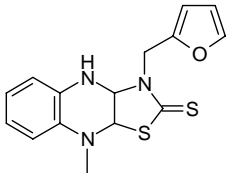
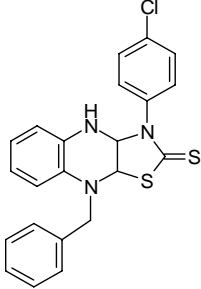
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

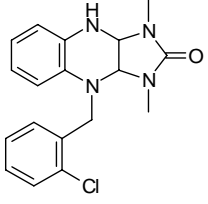
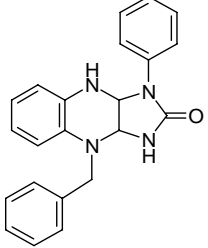
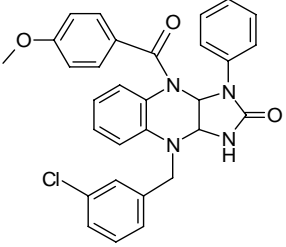
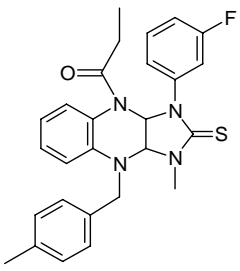
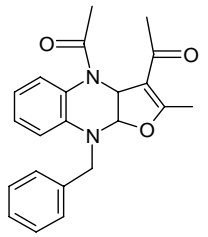
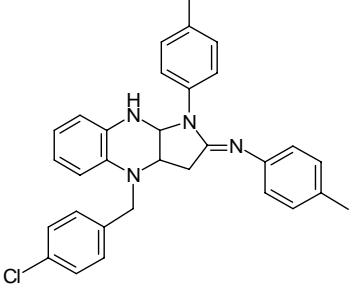
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| Z-34-2603 | | C ₂₃ H ₂₀ N ₂ O ₃ S | 404,49 | 235-236 | colorless crystals |
| Z-34-2605 | | C ₁₄ H ₁₁ ClN ₂ O ₂ S | 306,77 | 328-330 | colorless crystals |
| Z-34-2607 | | C ₂₂ H ₁₇ ClN ₂ O ₃ S | 424,91 | 241-242 | colorless crystals |
| Z-34-2608 | | C ₁₉ H ₁₃ ClN ₂ O ₃ S ₂ | 416,91 | 226-227 | colorless crystals |
| Z-35-3121 | | C ₂₄ H ₂₀ ClN ₃ OS | 433,96 | 188-191 | yellowish crystals |
| Z-35-3124 | | C ₂₅ H ₂₀ ClN ₃ OS | 445,97 | 158-159 | colorless crystals |
| Z-35-3322 | | C ₂₀ H ₁₆ ClN ₃ S ₂ | 397,95 | 135-139 | yellowish crystals |

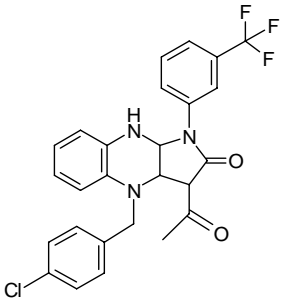
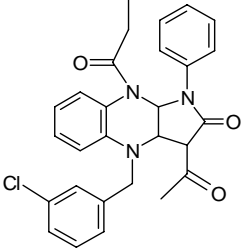
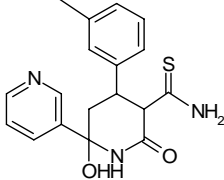
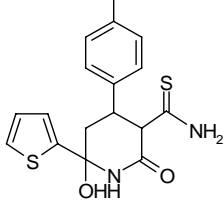
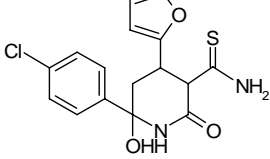
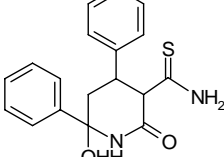
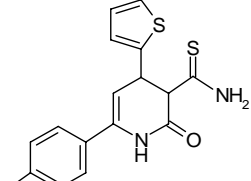
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|-----------|---|--|--------|---------|------------------------|
| Z-35-3324 |  | C ₂₁ H ₁₇ ClN ₄ S | 392,91 | 149-154 | cream-colored crystals |
| Z-35-3327 |  | C ₂₀ H ₂₀ ClN ₃ OS | 385,92 | 126-128 | colorless crystals |
| Z-35-3342 |  | C ₃₀ H ₂₅ ClN ₄ O ₂ S | 541,08 | 108-111 | cream-colored crystals |
| Z-35-3343 |  | C ₂₅ H ₂₂ N ₄ OS | 426,54 | 171-173 | colorless crystals |
| Z-35-3350 |  | C ₂₈ H ₂₁ ClF ₅ N ₅ OS | 530,03 | 184-186 | colorless crystals |
| Z-36-3138 |  | C ₃₀ H ₂₄ ClN ₃ OS | 510,06 | 119-124 | colorless crystals |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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| Z-36-3139 |  | C ₂₅ H ₂₂ FN ₃ OS | 431,54 | 173-177 | yellowish crystals |
| Z-36-3352 |  | C ₂₂ H ₁₇ Cl ₂ N ₃ S | 426,37 | 138-145 | pale yellow crystals |
| Z-36-3355 |  | C ₂₂ H ₂₀ N ₄ S | 372,50 | 149-153 | yellowish crystals |
| Z-36-3358 |  | C ₂₃ H ₂₁ N ₃ O ₂ S ₂ | 435,57 | 145-146 | cream-colored crystals |
| Z-36-3366 |  | C ₂₅ H ₂₃ ClN ₄ OS | 463,01 | 192-194 | colorless crystals |
| Z-36-3368 |  | C ₂₉ H ₂₂ Cl ₂ N ₄ OS | 545,49 | 150-153 | cream-colored crystals |
| Z-37-2765 |  | C ₁₉ H ₂₀ N ₄ OS ₂ | 384,53 | 197-198 | colorless crystals |

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| Z-37-2767 |  | C ₁₉ H ₁₉ N ₃ S ₂ | 353,51 | 125-126 | cream-colored crystals |
| Z-37-2774 |  | C ₂₂ H ₁₉ N ₃ O ₃ S ₃ | 437,61 | 201-203 | pale yellow crystals |
| Z-37-3374 |  | C ₃₂ H ₂₈ N ₃ O ₃ S ₂ | 585,72 | 185-192 | colorless crystals |
| Z-38-2778 |  | C ₂₂ H ₁₈ ClN ₃ S ₂ | 423,99 | 146-147 | colorless crystals |
| Z-38-2780 |  | C ₁₅ H ₁₅ N ₃ O ₃ S ₂ | 317,43 | 155-156 | colorless needles |
| Z-38-2782 |  | C ₂₂ H ₁₈ ClN ₃ S ₂ | 423,99 | 158-159 | yellowish needles |

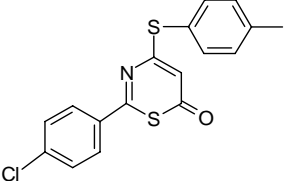
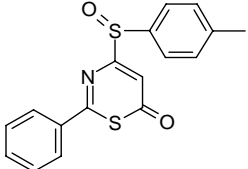
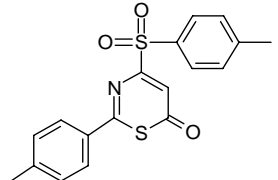
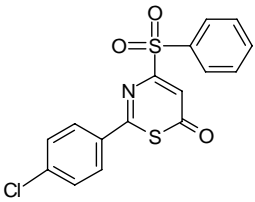
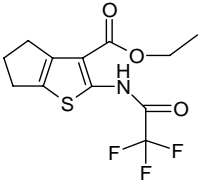
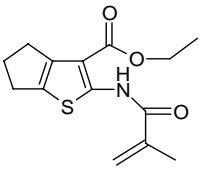
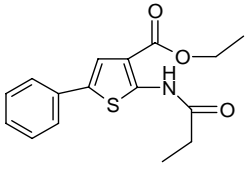
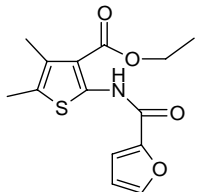
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|-----------|---|---|--------|---------|------------------------|
| Z-39-3144 |  | C ₁₈ H ₁₉ ClN ₄ O | 342,83 | 218-220 | colorless crystals |
| Z-39-3145 |  | C ₂₂ H ₂₀ N ₄ O | 356,43 | 200-202 | colorless crystals |
| Z-39-3370 |  | C ₃₀ H ₂₅ ClN ₄ O ₃ | 525,01 | 240-243 | colorless crystals |
| Z-39-3372 |  | C ₂₇ H ₂₇ FN ₄ OS | 474,60 | 173-175 | cream-colored crystals |
| Z-40-3396 |  | C ₂₂ H ₂₂ N ₂ O ₃ | 362,43 | 163-164 | colorless crystals |
| Z-41-3401 |  | C ₃₁ H ₂₉ ClN ₄ | 493,06 | 112-116 | colorless crystals |

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|-----------|---|--|--------|---------|--------------------|
| Z-42-3383 |  | C ₂₆ H ₂₁ ClF ₃ N ₃ O ₂ | 499,92 | 135-136 | colorless crystals |
| Z-42-3385 |  | C ₂₈ H ₂₆ ClN ₃ O ₃ | 487,99 | 139-142 | colorless crystals |
| Z-43-2641 |  | C ₁₈ H ₁₉ N ₃ O ₂ S | 341,44 | 185-186 | colorless crystals |
| Z-43-2642 |  | C ₁₇ H ₁₈ N ₂ O ₂ S ₂ | 346,47 | 205-210 | colorless crystals |
| Z-43-2652 |  | C ₁₆ H ₁₅ ClN ₂ O ₃ S | 350,83 | 209-211 | colorless crystals |
| Z-43-2656 |  | C ₁₇ H ₁₇ N ₃ O ₂ S | 327,41 | 204-206 | colorless crystals |
| Z-44-2670 |  | C ₁₇ H ₁₆ N ₂ O ₂ S ₂ | 328,46 | 176-179 | yellowish crystals |

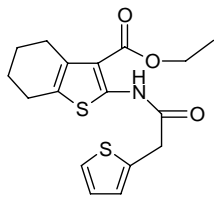
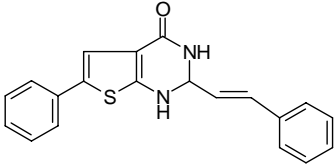
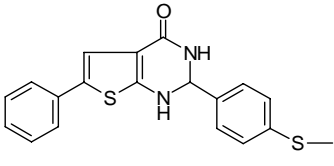
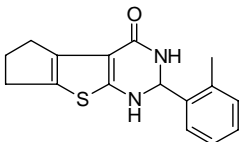
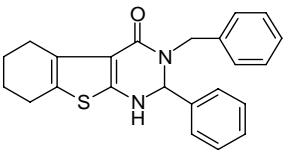
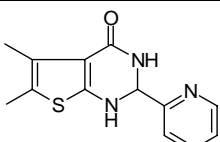
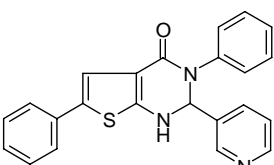
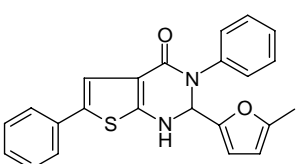
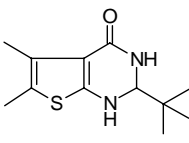
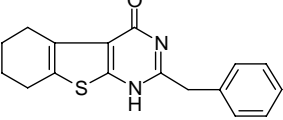
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|-----------|--|---|--------|---------|------------------------|
| Z-45-2674 | | C ₁₄ H ₁₄ N ₂ O ₂ S | 274,34 | 186-187 | pale yellow needles |
| Z-45-2677 | | C ₁₅ H ₁₈ N ₂ O ₂ S | 274,39 | 115-116 | yellow crystals |
| Z-45-2678 | | C ₁₀ H ₅ Cl ₂ NOS | 258,13 | 117-118 | salmon-pink needles |
| Z-45-2679 | | C ₁₀ H ₆ ClNO ₂ S | 239,68 | 178-182 | pale yellow crystals |
| Z-45-2684 | | C ₁₆ H ₁₇ ClN ₂ O ₂ S | 320,84 | 134-135 | orange-yellow crystals |
| Z-45-2689 | | C ₁₈ H ₁₅ N ₃ O ₃ S | 353,40 | 165-169 | yellow crystals |
| Z-45-2795 | | C ₁₈ H ₁₄ ClNOS ₂ | 359,90 | 131-132 | orange needles |
| Z-45-2797 | | C ₁₅ H ₉ ClN ₂ O ₂ S ₂ | 332,83 | 167-168 | pale yellow crystals |

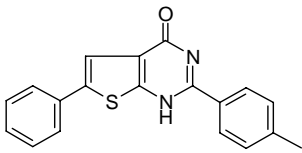
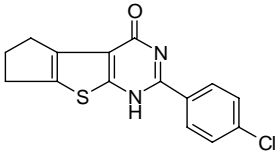
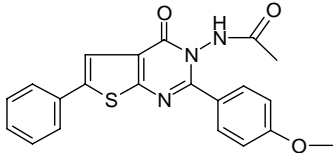
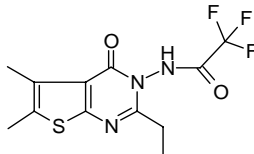
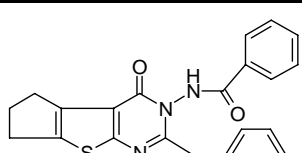
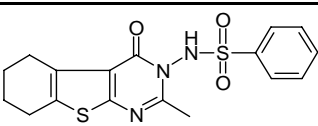
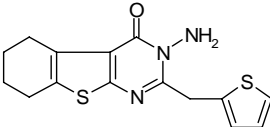
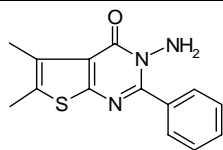
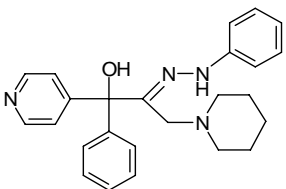
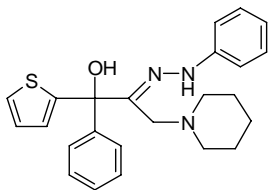
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|------------|---|--|--------|---------|----------------------|
| Z-45-2799 |  | C ₁₇ H ₁₂ ClNOS ₂ | 345,87 | 186-187 | salmon-pink crystals |
| Z-45-2802 |  | C ₁₇ H ₁₃ NO ₂ S ₂ | 327,43 | 161-163 | yellowish plates |
| Z-45-2806 |  | C ₁₈ H ₁₅ NO ₃ S ₂ | 357,45 | 186-191 | pale yellow crystals |
| Z-45-2807 |  | C ₁₆ H ₁₀ ClNO ₃ S ₂ | 363,84 | 228-229 | pale yellow crystals |
| Z-46-B3008 |  | C ₁₂ H ₁₂ F ₃ NO ₃ S | 307,29 | 110-111 | colorless needles |
| Z-46-B3009 |  | C ₁₄ H ₁₇ NO ₃ S | 279,36 | 98-99 | colorless crystals |
| Z-46-B3016 |  | C ₁₆ H ₁₇ NO ₃ S | 303,38 | 101-102 | yellowish plates |
| Z-46-B3022 |  | C ₁₄ H ₁₅ NO ₄ S | 293,34 | 175-176 | colorless crystals |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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| Z-46-B3023 |  | C17H19NO3S2 | 349,47 | 107-108 | colorless crystals |
| Z-47-2821 |  | C20H16N2OS | 332,43 | 205-208 | red crystals |
| Z-47-2823 |  | C19H16N2OS2 | 352,48 | 206-212 | yellow crystals |
| Z-47-2825 |  | C16H16N2OS | 284,38 | 225-231 | yellow needles |
| Z-47-2829 |  | C23H22N2OS | 374,51 | 149-150 | pale yellow needles |
| Z-47-2833 |  | C13H13N3OS | 259,33 | 200-205 | pale yellow needles |
| Z-47-2835 |  | C23H17N3OS | 383,48 | 224-225 | pale yellow needles |
| Z-47-2837 |  | C23H18N2O2S | 386,48 | 227-228 | brick-red needles |
| Z-48-2841 |  | C12H18N2OS | 238,35 | 163-164 | colorless crystals |
| Z-48-2843 |  | C17H16N2OS | 296,39 | 187-188 | colorless crystals |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|------------|---|--|--------|---------|------------------------|
| Z-48-2848 |  | C ₁₉ H ₁₄ N ₂ O ₂ S | 318,40 | 257-259 | pale yellow crystals |
| Z-48-2850 |  | C ₁₅ H ₁₁ ClN ₂ O ₂ S | 302,78 | 259-262 | colorless crystals |
| Z-49-2853 |  | C ₂₁ H ₁₇ N ₃ O ₃ S | 391,45 | 260-270 | pale yellow needles |
| Z-49-2855 |  | C ₁₂ H ₁₂ F ₃ N ₃ O ₂ S | 319,31 | 171-172 | colorless crystals |
| Z-49-2869 |  | C ₂₃ H ₁₉ N ₃ O ₂ S | 401,49 | 179-181 | colorless crystals |
| Z-49-2873 |  | C ₁₇ H ₁₇ N ₃ O ₃ S ₂ | 375,47 | 247-252 | colorless crystals |
| Z-49-3565 |  | C ₁₅ H ₁₅ N ₃ O ₂ S ₂ | 317,43 | 201-202 | colorless crystals |
| Z-49-B3124 |  | C ₁₄ H ₁₃ N ₃ O ₂ S | 271,34 | 175-176 | colorless needles |
| Z-50-2513 |  | C ₂₅ H ₂₈ N ₄ O | 400,53 | 123-125 | cream-colored crystals |
| Z-50-2515 |  | C ₂₄ H ₂₇ N ₃ O ₂ S | 405,57 | 100-101 | cream-colored crystals |

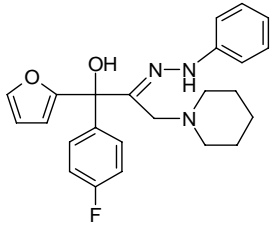
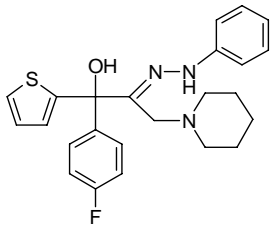
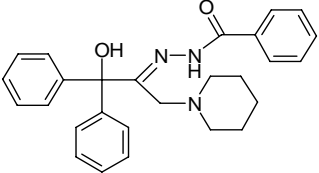
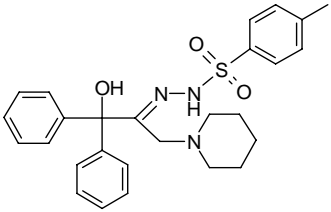
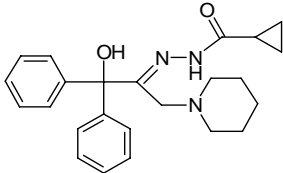
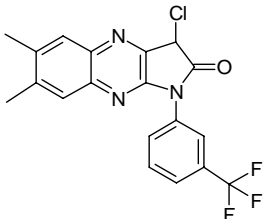
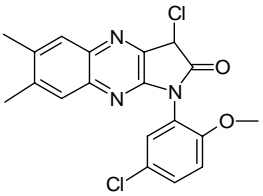
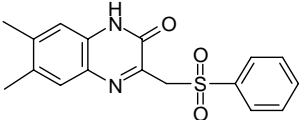
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

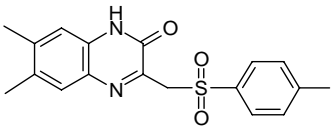
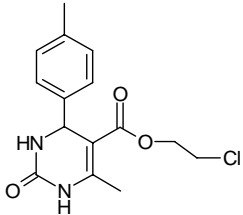
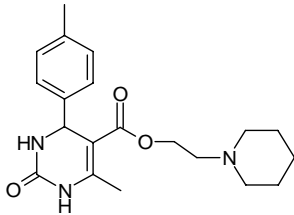
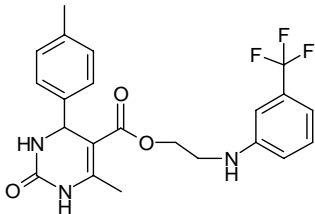
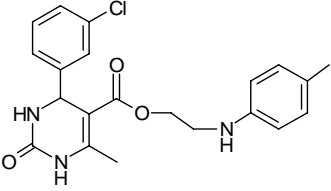
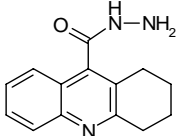
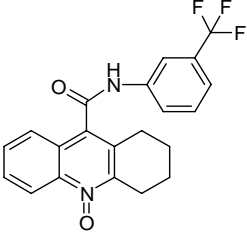
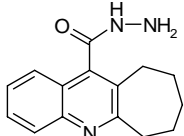
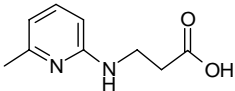
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|-----------|--|---|--------|---------|------------------------|
| Z-50-2700 | | C ₂₉ H ₃₅ N ₃ O ₃ | 473,62 | 130-131 | cream-colored crystals |
| Z-50-2709 | | C ₂₆ H ₂₇ F ₃ N ₄ O | 468,53 | 116-117 | colorless crystals |
| Z-50-2741 | | C ₂₈ H ₃₂ ClN ₃ O | 462,04 | 135-136 | colorless crystals |
| Z-50-2756 | | C ₂₀ H ₂₅ N ₃ O | 323,44 | 134-135 | colorless crystals |
| Z-50-2757 | | C ₁₆ H ₂₄ N ₄ O ₂ | 304,40 | 162-163 | colorless crystals |
| Z-50-2878 | | C ₂₁ H ₃₅ N ₃ O | 345,53 | 125-126 | colorless crystals |
| Z-50-2879 | | C ₂₁ H ₃₃ N ₃ O | 343,52 | 145-146 | colorless crystals |
| Z-50-2880 | | C ₂₀ H ₃₃ N ₃ O | 331,51 | 142-143 | colorless crystals |
| Z-50-2885 | | C ₂₁ H ₃₅ N ₃ O | 345,53 | 75-76 | cream-colored crystals |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

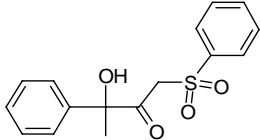
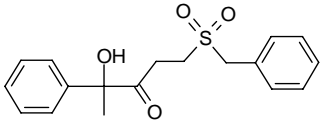
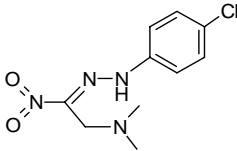
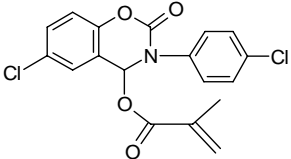
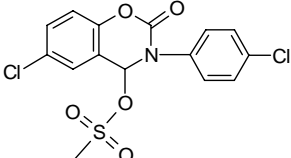
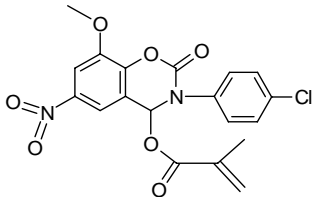
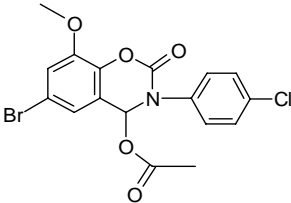
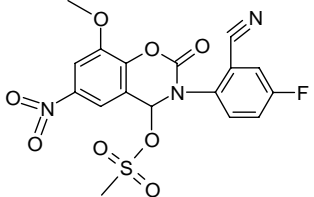
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|-----------|--|---|--------|---------|------------------------|
| Z-50-2894 | | C ₂₀ H ₂₉ ClF ₃ N ₃ O | 419,92 | 91-93 | colorless crystals |
| Z-50-2896 | | C ₂₅ H ₃₅ N ₃ O | 393,58 | 96-99 | colorless crystals |
| Z-50-2906 | | C ₁₉ H ₃₁ N ₃ O | 317,48 | 103-105 | colorless crystals |
| Z-50-2909 | | C ₂₆ H ₂₉ FN ₄ O | 432,55 | 125-126 | cream-colored crystals |
| Z-50-2917 | | C ₂₃ H ₃₂ N ₄ O | 380,54 | 109-111 | yellowish crystals |
| Z-50-2918 | | C ₂₃ H ₃₂ N ₄ O | 380,54 | 122-126 | yellowish crystals |
| Z-50-2919 | | C ₂₄ H ₃₄ N ₄ O | 394,56 | 157-159 | colorless crystals |
| Z-50-2927 | | C ₁₈ H ₃₅ N ₃ O ₂ | 325,50 | 138-141 | colorless crystals |
| Z-50-2928 | | C ₂₀ H ₃₁ N ₃ O ₂ | 345,49 | 76-85 | colorless crystals |

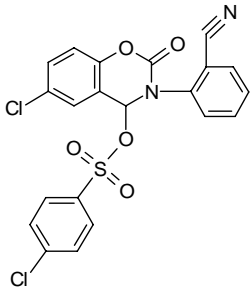
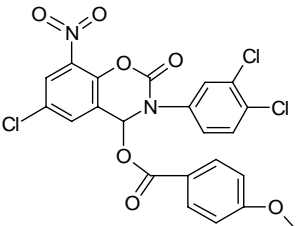
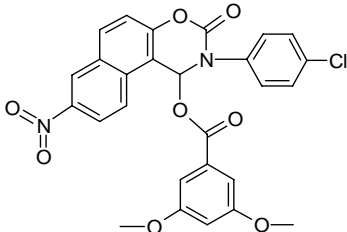
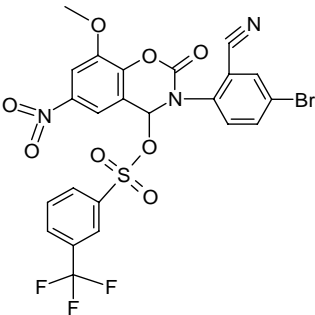
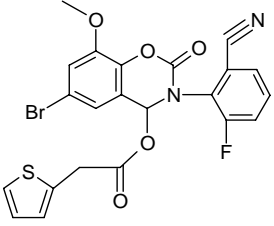
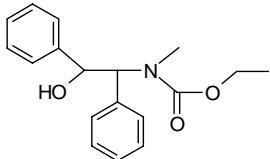
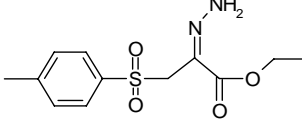
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|-----------|---|---------------|--------|----------|--------------------|
| Z-50-2929 |  | C24H26FN3O2 | 407,49 | 56-69 | colorless crystals |
| Z-50-2932 |  | C24H26FN3OS | 423,56 | 123-125 | colorless crystals |
| Z-50-2935 |  | C27H29N3O2 | 427,55 | 80-84 | colorless crystals |
| Z-50-2936 |  | C27H31N3O3S | 477,63 | 119-120 | colorless crystals |
| Z-50-2937 |  | C24H29N3O2 | 391,52 | 175-176 | colorless crystals |
| Z-51-1442 |  | C19H13ClF3N3O | 391,78 | 234-236 | yellow solid |
| Z-51-1464 |  | C19H15Cl2N3O2 | 388,26 | over 260 | yellow solid |
| Z-52-1985 |  | C17H16N2O3S | 328,39 | 250-252 | beige plates |

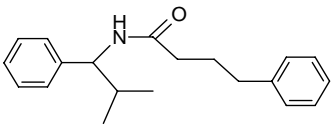
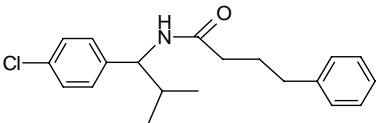
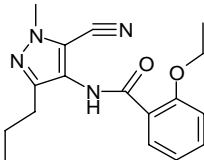
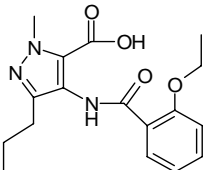
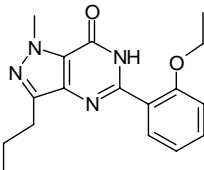
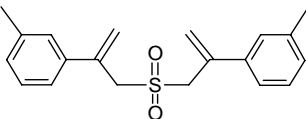
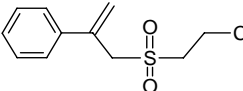
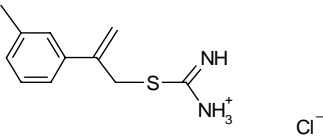
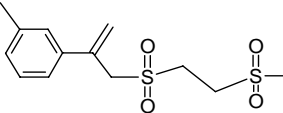
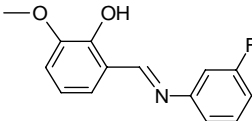
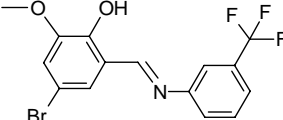
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|-----------|---|--|--------|---------|------------------------|
| Z-52-1986 |  | C ₁₈ H ₁₈ N ₂ O ₃ S | 342,42 | 253-255 | beige plates |
| Z-53-2055 |  | C ₁₅ H ₁₇ ClN ₂ O ₃ | 308,77 | 193-196 | colorless crystals |
| Z-53-2056 |  | C ₂₀ H ₂₇ N ₃ O ₃ | 357,46 | 151-154 | cream-colored crystals |
| Z-53-2057 |  | C ₂₂ H ₂₂ F ₃ N ₃ O ₃ | 433,43 | 179-182 | colorless crystals |
| Z-53-2058 |  | C ₂₁ H ₂₂ ClN ₃ O ₃ | 399,88 | 146-148 | colorless crystals |
| Z-54-1934 |  | C ₁₄ H ₁₅ N ₃ O | 241,30 | 277-278 | colorless crystals |
| Z-54-1939 |  | C ₂₁ H ₁₇ F ₃ N ₂ O ₂ | 386,38 | 272-274 | pale yellow crystals |
| Z-54-1942 |  | C ₁₅ H ₁₇ N ₃ O | 255,32 | 270-271 | colorless crystals |
| Z-55-L018 |  | C ₉ H ₁₂ N ₂ O ₂ | 180,21 | 153-155 | colorless crystals |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

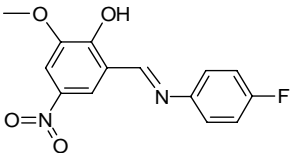
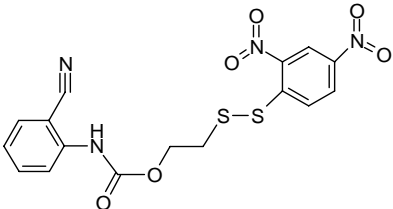
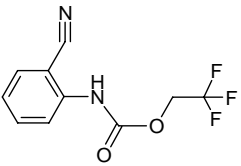
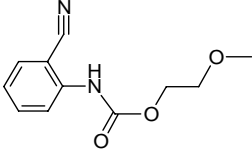
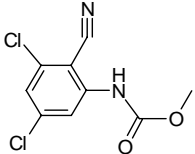
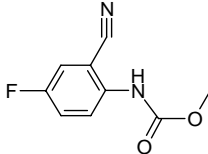
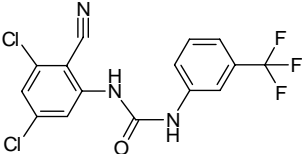
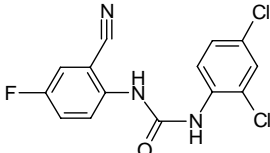
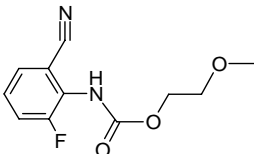
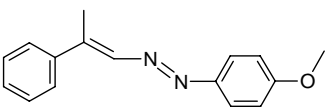
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|-----------|---|---|--------|---------|----------------------|
| Z-56-3222 |  | C ₁₆ H ₁₆ O ₄ S | 304,37 | 83-85 | pale yellow crystals |
| Z-56-3453 |  | C ₁₈ H ₂₀ O ₄ S | 332,42 | 79-81 | colorless crystals |
| Z-57-3591 |  | C ₁₀ H ₁₃ ClN ₄ O ₂ | 256,69 | 88-89 | orange-red crystals |
| Z-58-1473 |  | C ₁₈ H ₁₃ Cl ₂ NO ₄ | 378,21 | 136-137 | colorless needles |
| Z-58-1474 |  | C ₁₅ H ₁₁ Cl ₂ NO ₅ S | 388,23 | 101-102 | colorless needles |
| Z-58-1476 |  | C ₁₉ H ₁₅ Cl ₂ NO ₇ | 418,79 | 190-192 | colorless needles |
| Z-58-1477 |  | C ₁₇ H ₁₃ BrClNO ₅ | 426,65 | 128-129 | colorless needles |
| Z-58-1478 |  | C ₁₇ H ₁₂ FN ₃ O ₈ S | 437,36 | 204-205 | colorless needles |

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|------------|---|--|--------|---------|-----------------------------------|
| Z-58-1487 |  | C ₂₁ H ₁₂ Cl ₂ N ₂ O ₅ S | 475,31 | 94-96 | yellowish crystals |
| Z-58-1493 |  | C ₂₂ H ₁₃ Cl ₃ N ₂ O ₇ | 523,72 | 154-155 | cream-colored needles |
| Z-58-1496 |  | C ₂₇ H ₁₉ ClN ₂ O ₈ | 534,91 | 241-242 | pale yellow needles |
| Z-58-1500 |  | C ₂₃ H ₁₃ BrF ₃ N ₃ O ₈ S | 628,34 | 197-199 | colorless crystals |
| Z-58-B1717 |  | C ₂₂ H ₁₄ BrFN ₂ O ₅ S | 517,33 | 160-168 | pale yellow crystals |
| Z-59-0171 |  | C ₁₈ H ₂₁ NO ₃ | 299,37 | 84-85 | colorless crystals isomer treo |
| Z-60-1981 |  | C ₁₂ H ₁₆ N ₂ O ₄ S | 284,34 | 159-161 | cream-colored crystals |

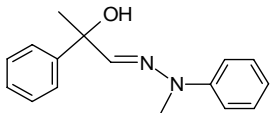
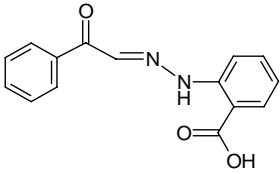
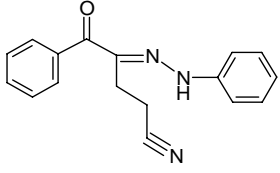
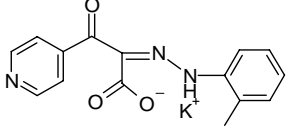
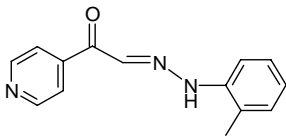
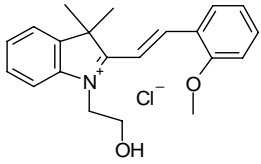
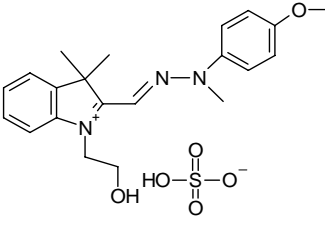
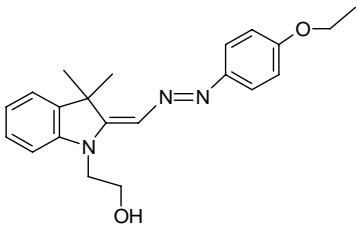
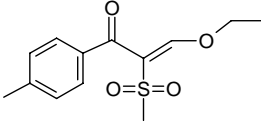
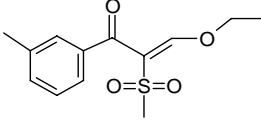
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|-----------|---|--|--------|---------|-----------------------|
| Z-61-1317 |  | C ₂₀ H ₂₅ NO | 295,43 | 96-99 | colorless crystals |
| Z-61-1318 |  | C ₂₀ H ₂₄ ClNO | 329,87 | 122-123 | colorless needles |
| Z-62-3607 |  | C ₁₇ H ₂₀ N ₄ O ₂ | 312,37 | 135-138 | colorless needles |
| Z-62-3608 |  | C ₁₇ H ₂₁ N ₃ O ₄ | 331,37 | 181-188 | cream-colored needles |
| Z-62-3609 |  | C ₁₇ H ₂₀ N ₄ O ₂ | 312,37 | 139-143 | colorless crystals |
| Z-63-1522 |  | C ₂₀ H ₂₂ O ₂ S | 326,46 | 70-71 | colorless plates |
| Z-63-1524 |  | C ₁₁ H ₁₃ ClO ₂ S | 244,74 | 43-45 | colorless crystals |
| Z-63-1715 |  | C ₁₁ H ₁₅ ClN ₂ S | 242,77 | 137-139 | colorless crystals |
| Z-63-L024 |  | C ₁₃ H ₁₈ O ₄ S ₂ | 302,41 | 136-138 | colorless crystals |
| Z-64-0703 |  | C ₁₄ H ₁₂ FNO ₂ | 245,26 | 95-96 | orange needles |
| Z-64-0707 |  | C ₁₅ H ₁₁ BrF ₃ NO ₂ | 374,16 | 110-112 | orange-yellow needles |

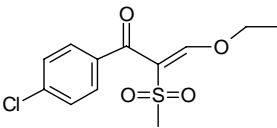
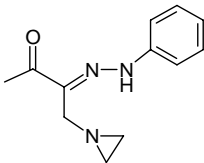
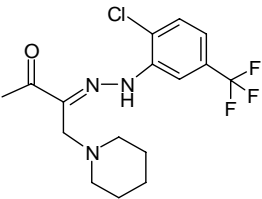
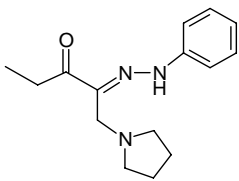
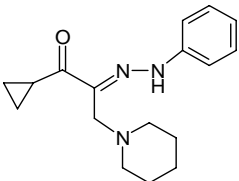
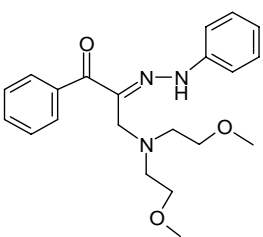
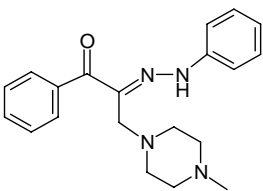
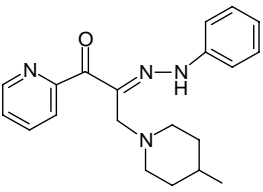
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|-----------|---|--|--------|---------|--------------------|
| Z-64-0721 |  | C ₁₄ H ₁₁ FN ₂ O ₄ | 290,25 | 200-202 | orange needles |
| Z-65-0733 |  | C ₁₆ H ₁₂ N ₄ O ₆ S ₂ | 420,43 | 165-166 | yellow needles |
| Z-65-0755 |  | C ₁₀ H ₇ F ₃ N ₂ O ₂ | 244,17 | 107-109 | colorless crystals |
| Z-65-0757 |  | C ₁₁ H ₁₂ N ₂ O ₃ | 220,23 | 74-75 | colorless needles |
| Z-65-0793 |  | C ₉ H ₆ Cl ₂ N ₂ O ₂ | 245,07 | 148-149 | colorless needles |
| Z-65-0795 |  | C ₉ H ₇ FN ₂ O ₂ | 194,17 | 144-145 | colorless needles |
| Z-65-0799 |  | C ₁₅ H ₈ Cl ₂ F ₃ N ₃ O | 374,15 | 222-225 | colorless needles |
| Z-65-0800 |  | C ₁₄ H ₈ Cl ₂ FN ₃ O | 324,14 | 188-189 | colorless needles |
| Z-65-0801 |  | C ₁₁ H ₁₁ FN ₂ O ₃ | 238,22 | 98-99 | colorless needles |
| Z-66-0366 |  | C ₁₆ H ₁₆ N ₂ O | 252,32 | 115-117 | orange crystals |

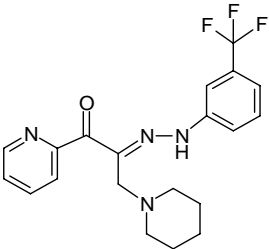
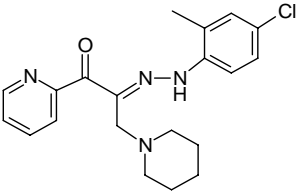
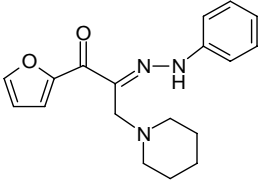
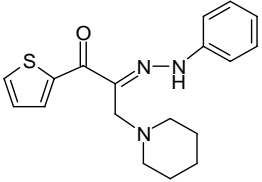
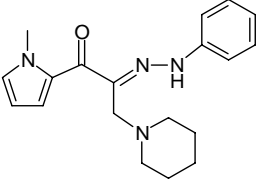
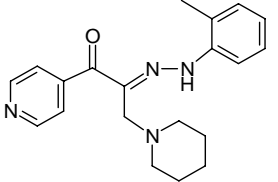
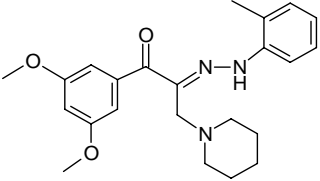
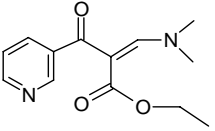
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|------------|---|---|--------|---------|----------------------|
| Z-66-0368 |  | C ₁₆ H ₁₈ N ₂ O | 254,33 | 71-73 | pale yellow crystals |
| Z-66-0695 |  | C ₁₅ H ₁₂ N ₂ O ₃ | 268,27 | 210-212 | pale yellow crystals |
| Z-66-0700 |  | C ₁₇ H ₁₅ N ₃ O | 277,33 | 188-189 | orange needles |
| Z-66-2984 |  | C ₁₅ H ₁₂ KN ₃ O ₃ | 321,38 | 202-204 | pale yellow crystals |
| Z-66-3010 |  | C ₁₄ H ₁₃ N ₃ O | 239,28 | 108-109 | orange needles |
| Z-67-0250 |  | C ₂₁ H ₂₄ ClNO ₂ | 357,88 | 189-190 | orange crystals |
| Z-67-1278 |  | C ₂₁ H ₂₇ N ₃ O ₆ S | 449,53 | 150-152 | orange crystals |
| Z-67-1290 |  | C ₂₁ H ₂₅ N ₃ O ₂ | 351,45 | 151-155 | orange needles |
| Z-68-B6618 |  | C ₁₃ H ₁₆ O ₄ S | 268,33 | 106-110 | colorless needles |
| Z-68-B6619 |  | C ₁₃ H ₁₆ O ₄ S | 268,33 | 83-84 | colorless needles |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|-------------|---|---|--------|---------|------------------------|
| Z-68-B-6621 |  | C ₁₂ H ₁₃ ClO ₄ S | 288,75 | 112-113 | colorless needles |
| Z-69-3033 |  | C ₁₂ H ₁₅ N ₃ O | 217,27 | 68-69 | yellowish crystals |
| Z-69-3051 |  | C ₁₆ H ₁₉ ClF ₃ N ₃ O | 361,80 | 104-109 | yellow needles |
| Z-69-3054 |  | C ₁₅ H ₂₁ N ₃ O | 259,35 | 45-46 | cream-colored crystals |
| Z-69-3057 |  | C ₁₇ H ₂₃ N ₃ O | 285,39 | 121-127 | yellowish crystals |
| Z-69-3059 |  | C ₂₁ H ₂₇ N ₃ O ₃ | 369,47 | 56-57 | pale yellow crystals |
| Z-69-3070 |  | C ₂₀ H ₂₄ N ₄ O | 336,44 | 105-106 | pale yellow crystals |
| Z-69-3084 |  | C ₂₀ H ₂₄ N ₄ O | 336,44 | 96-97 | light yellow crystals |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

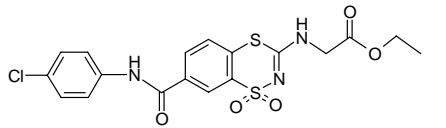
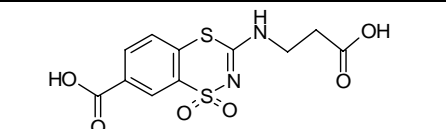
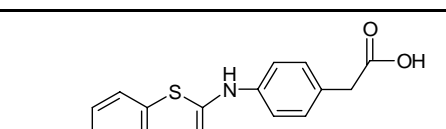
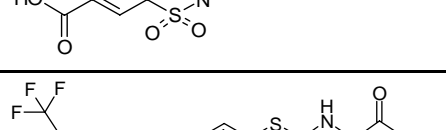
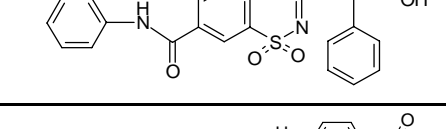
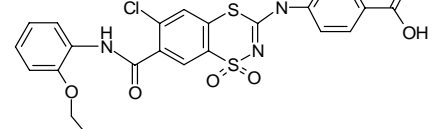
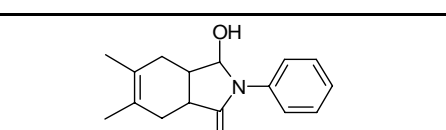
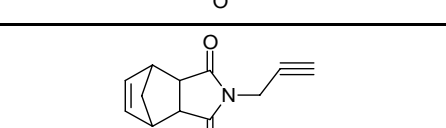
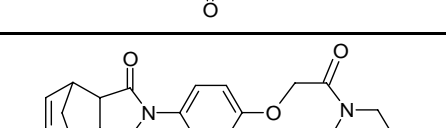
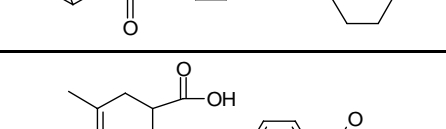
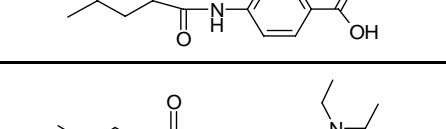
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|------------|---|---|--------|---------|----------------------|
| Z-69-3094 |  | C ₂₀ H ₂₁ F ₃ N ₄ O | 390,41 | 144-146 | pale yellow crystals |
| Z-69-3096 |  | C ₂₀ H ₂₃ ClN ₄ O | 370,89 | 141-143 | yellow plates |
| Z-69-3100 |  | C ₁₈ H ₂₁ N ₃ O ₂ | 311,39 | 142-144 | light yellow needles |
| Z-69-3102 |  | C ₁₈ H ₂₁ N ₃ OS | 327,45 | 81-82 | yellow crystals |
| Z-69-3103 |  | C ₁₉ H ₂₄ N ₄ O | 324,43 | 94-96 | yellow needles |
| Z-69-3105 |  | C ₂₀ H ₂₄ N ₄ O | 336,44 | 100-101 | pale yellow crystals |
| Z-69-3553 |  | C ₂₃ H ₂₉ N ₃ O ₃ | 395,51 | 116-117 | pale yellow crystals |
| Z-70-B7150 |  | C ₁₃ H ₁₆ N ₂ O ₃ | 248,28 | 57-58 | yellow crystals |

| | | | | | |
|------------|--|--------------|--------|---------|------------------------|
| Z-70-B7284 | | C13H17NO4S | 283,35 | 165-168 | yellowish crystals |
| Z-70-B7285 | | C14H19NO4S | 297,38 | 94-96 | pale yellow crystals |
| Z-71-1214 | | C18H21N3O | 295,39 | 90-91 | colorless crystals |
| Z-71-1736 | | C16H17N3O2 | 283,33 | 72-73 | colorless crystals |
| Z-71-1742 | | C15H21ClN4O | 308,81 | 82-83 | cream-colored crystals |
| Z-71-1748 | | C20H22FN3O2 | 355,42 | 80-81 | red crystals |
| Z-71-1780 | | C16H13F3N4O2 | 350,30 | 116-117 | orange needles |
| Z-71-1781 | | C12H14N4O4 | 278,27 | 152-153 | yellow crystals |

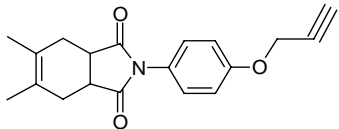
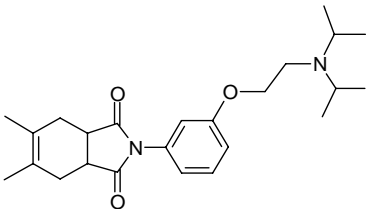
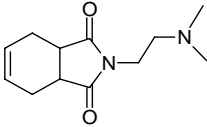
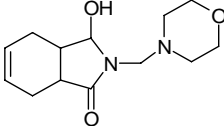
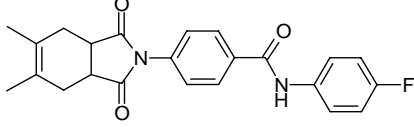
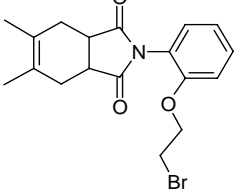
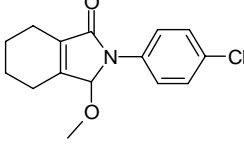
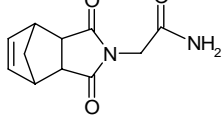
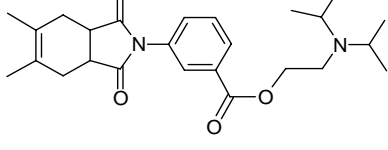
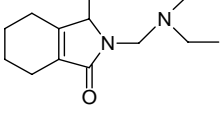
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

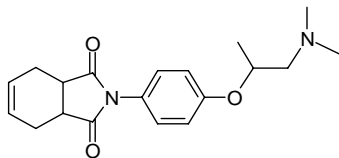
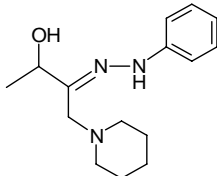
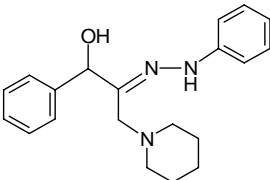
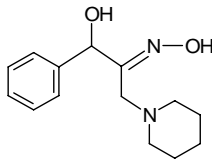
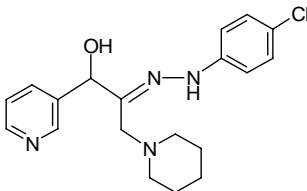
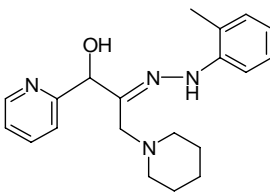
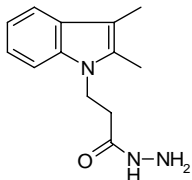
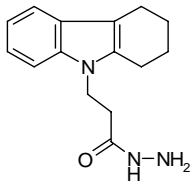
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|-----------|--|----------------|--------|---------|---------------------|
| Z-71-2256 | | C19H18ClN3O | 339,83 | 146-147 | pale yellow needles |
| Z-71-2264 | | C14H14N4O3 | 286,29 | 133-136 | brick-red crystals |
| Z-71-3554 | | C29H32N6O | 480,62 | 132-133 | yellow needles |
| Z-72-3610 | | C8H5NO4S3 | 275,33 | 219-220 | colorless crystals |
| Z-72-3615 | | C9H6ClNO4S3 | 323,80 | 226-230 | colorless crystals |
| Z-72-3620 | | C12H14N2O3S3 | 330,45 | 193-199 | colorless crystals |
| Z-72-3622 | | C17H16N2O3S3 | 392,52 | 185-188 | colorless crystals |
| Z-72-3623 | | C13H13ClN2O4S3 | 392,90 | 165-169 | colorless crystals |
| Z-72-3624 | | C14H12N2O4S3 | 368,45 | 168-170 | colorless plates |
| Z-72-3628 | | C16H11F3N2O3S3 | 432,46 | 223-228 | colorless crystals |
| Z-72-3629 | | C17H15ClN2O4S3 | 442,97 | 197-202 | colorless crystals |

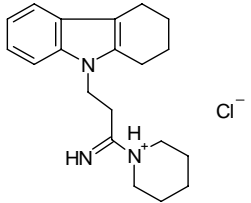
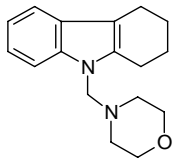
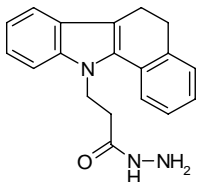
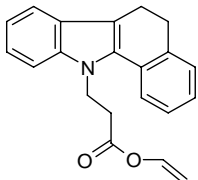
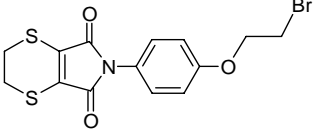
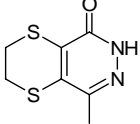
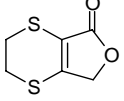
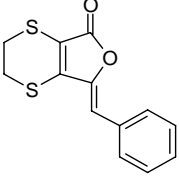
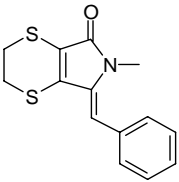
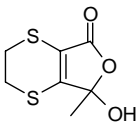
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|-----------|---|----------------|--------|----------|--------------------|
| Z-72-3631 |  | C18H16ClN3O5S2 | 453,93 | 245-251 | colorless crystals |
| Z-72-3632 |  | C11H10N2O6S2 | 330,34 | 238-243 | colorless crystals |
| Z-72-3633 |  | C16H12N2O6S2 | 392,41 | over 260 | colorless crystals |
| Z-72-3634 |  | C23H16F3N3O5S2 | 535,52 | 253-255 | colorless crystals |
| Z-72-3636 |  | C23H18ClN3O6S2 | 532,00 | 300-306 | colorless crystals |
| Z-73-0071 |  | C16H19NO2 | 257,34 | 138-140 | colorless crystals |
| Z-73-0156 |  | C12H11NO2 | 201,23 | 97-98 | colorless crystals |
| Z-73-0165 |  | C22H24N2O4 | 380,45 | 171-172 | colorless crystals |
| Z-73-0227 |  | C17H19NO5 | 317,34 | 184-186 | colorless crystals |
| Z-73-0233 |  | C21H26N2O3 | 354,45 | 135-137 | colorless crystals |
| Z-73-0441 |  | C25H34N2O4 | 426,56 | 95-97 | colorless needles |

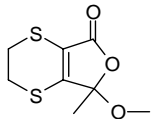
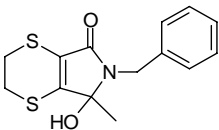
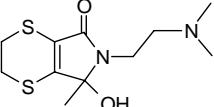
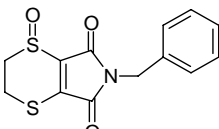
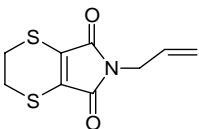
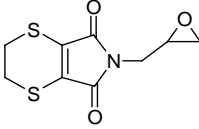
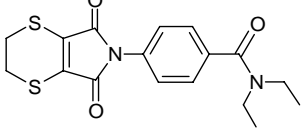
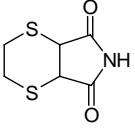
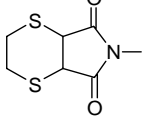
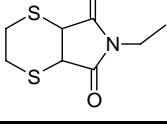
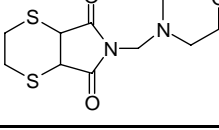
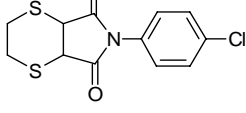
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|-----------|---|--|--------|---------|--------------------|
| Z-73-0443 |  | C ₁₉ H ₁₉ NO ₃ | 309,37 | 116-118 | colorless crystals |
| Z-73-0449 |  | C ₂₄ H ₃₄ N ₂ O ₃ | 398,55 | 59-61 | colorless crystals |
| Z-73-0454 |  | C ₁₂ H ₁₈ N ₂ O ₂ | 222,29 | 49-50 | colorless crystals |
| Z-73-0457 |  | C ₁₃ H ₂₀ N ₂ O ₃ | 252,32 | 138-139 | colorless crystals |
| Z-73-0746 |  | C ₂₃ H ₂₁ FN ₂ O ₃ | 392,43 | 204-205 | colorless crystals |
| Z-73-0750 |  | C ₁₈ H ₂₀ BrNO ₃ | 378,27 | 87-89 | colorless crystals |
| Z-73-0772 |  | C ₁₅ H ₁₆ ClNO ₂ | 277,75 | 86-88 | colorless needles |
| Z-73-0780 |  | C ₁₁ H ₁₂ N ₂ O ₃ | 220,23 | 172-173 | colorless crystals |
| Z-73-1243 |  | C ₂₅ H ₃₄ N ₂ O ₄ | 426,56 | 74-76 | colorless crystals |
| Z-73-1258 |  | C ₁₃ H ₂₂ N ₂ O ₂ | 238,33 | 154-157 | colorless crystals |

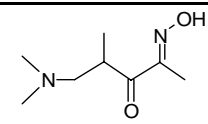
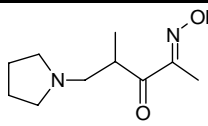
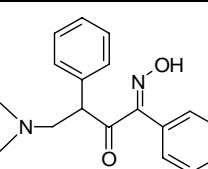
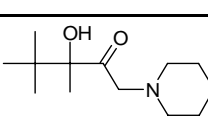
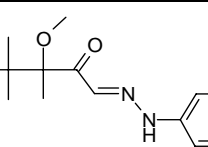
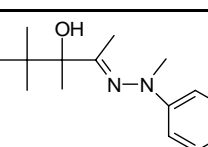
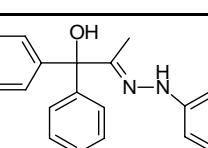
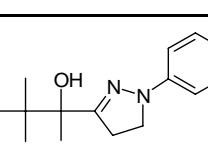
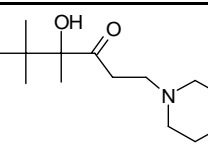
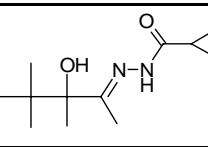
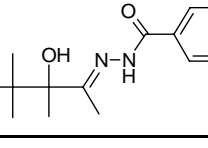
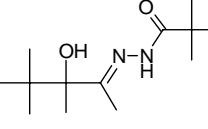
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|-----------|---|---|--------|---------|------------------------|
| Z-73-2990 |  | C ₁₉ H ₂₄ N ₂ O ₃ | 328,41 | 90-94 | colorless crystals |
| Z-74-1209 |  | C ₁₅ H ₂₃ N ₃ O | 261,37 | 99-100 | cream-colored crystals |
| Z-74-1218 |  | C ₂₀ H ₂₅ N ₃ O | 323,44 | 149-150 | cream-colored crystals |
| Z-74-1219 |  | C ₁₄ H ₂₀ N ₂ O ₂ | 248,33 | 113-114 | colorless crystals |
| Z-74-1222 |  | C ₁₉ H ₂₃ ClN ₄ O | 358,87 | 147-148 | cream-colored crystals |
| Z-74-2754 |  | C ₂₀ H ₂₆ N ₄ O | 338,46 | 85-87 | cream-colored crystals |
| Z-75-0178 |  | C ₁₃ H ₁₇ N ₃ O | 231,30 | 133-135 | colorless crystals |
| Z-75-0193 |  | C ₁₅ H ₁₉ N ₃ O | 257,34 | 133-138 | colorless crystals |

| | | | | | |
|-----------|---|--|--------|---------|------------------------|
| Z-75-0203 |  | C ₂₀ H ₂₈ ClN ₃ | 345,92 | 217-218 | cream-colored crystals |
| Z-75-0205 |  | C ₁₇ H ₂₂ N ₂ O | 270,38 | 68-70 | colorless crystals |
| Z-75-0480 |  | C ₁₉ H ₁₉ N ₃ O | 305,38 | 131-133 | cream-colored crystals |
| Z-75-0485 |  | C ₂₁ H ₁₉ NO ₂ | 317,39 | 118-119 | colorless plates |
| Z-76-1143 |  | C ₁₄ H ₁₂ BrNO ₃ S ₂ | 386,29 | 207-210 | pale yellow crystals |
| Z-76-2301 |  | C ₇ H ₈ N ₂ O ₂ S ₂ | 200,28 | 297-300 | colorless crystals |
| Z-76-2303 |  | C ₆ H ₆ O ₂ S ₂ | 174,24 | 142-143 | colorless crystals |
| Z-76-2304 |  | C ₁₃ H ₁₀ O ₂ S ₂ | 262,35 | 149-151 | pale yellow needles |
| Z-76-2305 |  | C ₁₄ H ₁₃ NOS ₂ | 275,39 | 122-125 | yellow crystals |
| Z-76-2308 |  | C ₇ H ₈ O ₃ S ₂ | 204,27 | 194-196 | colorless crystals |

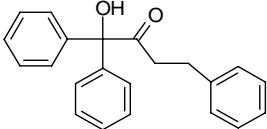
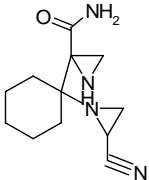
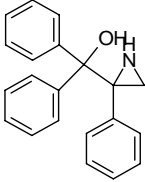
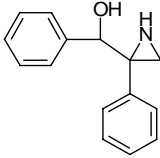
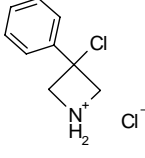
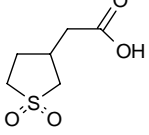
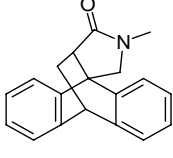
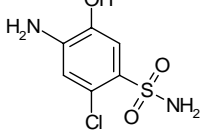
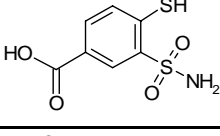
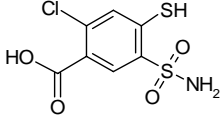
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

| | | | | | |
|-----------|---|---------------|--------|---------|-----------------------|
| Z-76-2315 |  | C8H10O3S2 | 218,30 | 118-120 | colorless crystals |
| Z-76-2316 |  | C14H15NO2S2 | 293,41 | 161-163 | colorless crystals |
| Z-76-2318 |  | C11H18N2O2S2 | 274,41 | 193-195 | colorless needles |
| Z-76-2320 |  | C13H11NO3S2 | 293,37 | 154-156 | pale yellow crystals |
| Z-76-2322 |  | C9H9NO2S2 | 227,31 | 155-156 | pale yellow crystals |
| Z-76-2326 |  | C9H9NO3S2 | 243,30 | 151-153 | orange-yellow needles |
| Z-76-2338 |  | C17H18N2O3S2 | 362,47 | 191-192 | pale yellow needles |
| Z-76-2355 |  | C6H7NO2S2 | 189,26 | 201-206 | colorless crystals |
| Z-76-2356 |  | C7H9NO2S2 | 203,28 | 91-93 | colorless crystals |
| Z-76-2357 |  | C8H11NO2S2 | 217,31 | 125-127 | colorless plates |
| Z-76-2360 |  | C11H16N2O3S2 | 288,39 | 179-180 | colorless crystals |
| Z-76-2363 |  | C12H10ClNO2S2 | 299,80 | 176-177 | colorless needles |

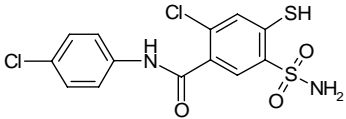
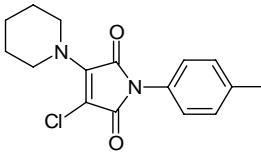
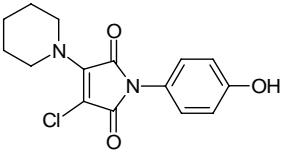
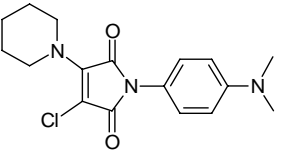
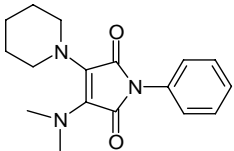
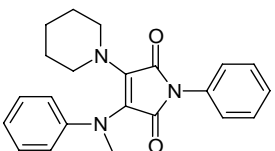
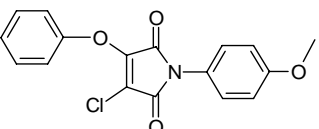
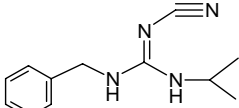
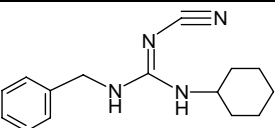
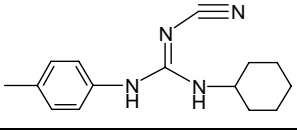
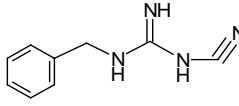
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

| | | | | | |
|-----------|---|---|--------|---------|----------------------|
| Z-77-0085 |  | C ₈ H ₁₆ N ₂ O ₂ | 172,23 | 101-104 | colorless crystals |
| Z-77-0100 |  | C ₁₀ H ₁₈ N ₂ O ₂ | 198,27 | 107-109 | colorless crystals |
| Z-77-0429 |  | C ₁₈ H ₂₀ N ₂ O ₂ | 296,37 | 140-142 | colorless crystals |
| Z-78-2922 |  | C ₁₃ H ₂₅ N ₂ O | 227,35 | 66-67 | colorless crystals |
| Z-78-2923 |  | C ₁₅ H ₂₂ N ₂ O ₂ | 262,35 | 130-132 | pale yellow crystals |
| Z-78-2924 |  | C ₁₅ H ₂₄ N ₂ O | 248,37 | 59-60 | colorless plates |
| Z-78-2938 |  | C ₂₁ H ₂₀ N ₂ O | 316,41 | 110-112 | orange-red crystals |
| Z-78-2941 |  | C ₁₅ H ₂₂ N ₂ O | 246,36 | 75-77 | colorless crystals |
| Z-78-2977 |  | C ₁₄ H ₂₇ N ₂ O | 241,38 | 46-49 | colorless crystals |
| Z-78-2978 |  | C ₁₂ H ₂₂ N ₂ O ₂ | 226,32 | 109-111 | colorless crystals |
| Z-78-2979 |  | C ₁₅ H ₂₂ N ₂ O ₂ | 262,35 | 110-112 | colorless crystals |
| Z-78-2980 |  | C ₁₃ H ₂₆ N ₂ O ₂ | 242,36 | 116-119 | colorless crystals |

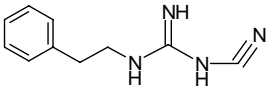
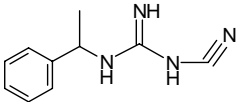
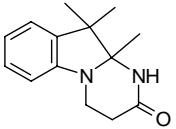
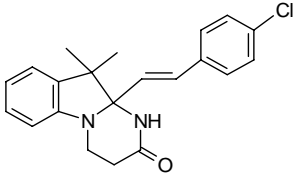
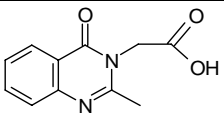
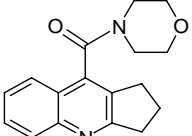
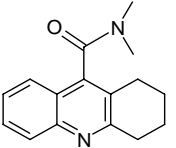
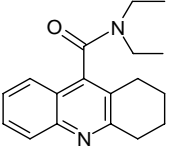
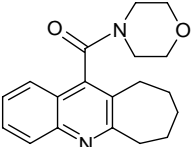
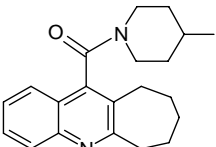
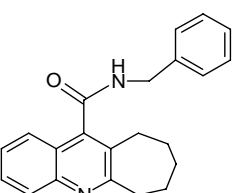
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

| | | | | | |
|------------|---|---|--------|----------|--------------------|
| Z-78-B3314 |  | C ₂₂ H ₂₀ O ₂ | 316,40 | 83-85 | colorless crystals |
| Z-79-0048 |  | C ₁₂ H ₁₈ N ₄ O | 234,30 | 181-183 | colorless crystals |
| Z-79-0090 |  | C ₂₁ H ₁₉ NO | 301,39 | 114-117 | colorless crystals |
| Z-79-0413 |  | C ₁₅ H ₁₅ NO | 225,29 | 121-122 | colorless crystals |
| Z-80-0407 |  | C ₉ H ₁₁ Cl ₂ N | 204,10 | 158-160 | colorless crystals |
| Z-81-B2025 |  | C ₆ H ₁₀ O ₄ S | 178,21 | 88-90 | colorless crystals |
| Z-82-0051 |  | C ₁₉ H ₁₇ NO | 275,35 | 136-138 | colorless needles |
| Z-83-0424 |  | C ₆ H ₇ ClN ₂ O ₃ S | 222,65 | 216-217 | colorless crystals |
| Z-84-3612 |  | C ₇ H ₇ NO ₄ S ₂ | 233,27 | over 260 | colorless crystals |
| Z-84-3613 |  | C ₇ H ₆ ClNO ₄ S ₂ | 267,71 | over 260 | colorless crystals |

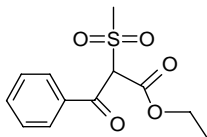
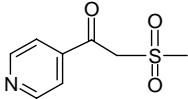
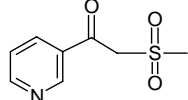
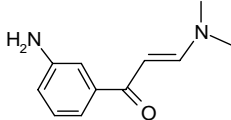
Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

| | | | | | |
|------------|---|-----------------|--------|---------|-----------------------|
| Z-84-B4603 |  | C13H10Cl2N2O3S2 | 377,27 | 110-116 | colorless crystals |
| Z-85-0306 |  | C16H17ClN2O2 | 304,78 | 130-131 | yellow needles |
| Z-85-0310 |  | C15H15ClN2O3 | 306,75 | 188-189 | yellow plates |
| Z-85-0313 |  | C17H20ClN3O2 | 333,82 | 164-165 | orange-red needles |
| Z-85-2276 |  | C17H21N3O2 | 299,38 | 115-117 | orange-yellow needles |
| Z-85-2277 |  | C22H23N3O2 | 361,45 | 115-116 | orange-yellow needles |
| Z-85-2350 |  | C17H12ClNO4 | 329,74 | 124-127 | pale yellow crystals |
| Z-86-B7406 |  | C12H16N4 | 216,29 | 146-148 | colorless crystals |
| Z-86-B7408 |  | C15H20N4 | 256,35 | 148-150 | colorless crystals |
| Z-86-B7409 |  | C15H20N4 | 256,35 | 149-150 | colorless crystals |
| Z-86-B7410 |  | C9H10N4 | 174,21 | 114-115 | colorless needles |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|------------|---|-------------|--------|---------|------------------------|
| Z-86-B7411 |  | C10H12N4 | 188,23 | 118-119 | colorless plates |
| Z-86-B7413 |  | C10H12N4 | 188,23 | 128-130 | colorless crystals |
| Z-87-2632 |  | C14H18N2O | 230,31 | 170-171 | colorless crystals |
| Z-87-2634 |  | C21H21ClN2O | 352,87 | 239-240 | colorless needles |
| Z-88-B4568 |  | C11H10N2O3 | 218,21 | 257-260 | colorless crystals |
| Z-89-5035 |  | C17H18N2O2 | 282,35 | 220-223 | cream-colored crystals |
| Z-89-5036 |  | C16H18N2O | 254,33 | 130-132 | cream-colored crystals |
| Z-89-5037 |  | C18H22N2O | 282,39 | 102-106 | cream-colored crystals |
| Z-89-5038 |  | C19H22N2O2 | 310,40 | 146-148 | colorless crystals |
| Z-89-5039 |  | C21H26N2O | 322,45 | 102-104 | colorless crystals |
| Z-89-5040 |  | C22H22N2O | 330,43 | 168-170 | cream-colored crystals |

Z. SELECTED NON-PHOSPHORUS COMPOUNDS.xls

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|-----------|---|--|--------|---------|----------------------|
| Z-90-5041 |  | C ₁₂ H ₁₄ O ₅ S | 270,31 | 75-77 | colorless crystals |
| Z-90-5044 |  | C ₈ H ₉ NO ₃ S | 199,23 | 104-108 | colorless crystals |
| Z-90-5045 |  | C ₈ H ₉ NO ₃ S | 199,23 | 76-79 | colorless crystals |
| Z-91-5042 |  | C ₁₁ H ₁₄ N ₂ O | 190,25 | 107-109 | pale yellow crystals |