## Light Elements
| Unnamed: 0 | GT529 | GT700 | GT704 | GT530 | GT17 | GT400 | GT532 | GT947 | GT1450 | GT2747 | GT2097 | GT3127 | GT2671 | GT6 | GT2349 | GT3119 | GT3128 | GT2748 | GT3012 | GT2903 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MgKa1 | 2.017727 | 2.301409 | 3.017437 | 3.318007 | 2.845192 | 3.662744 | 2.934553 | 2.340775 | 2.867087 | 3.007196 | 3.098791 | 9.135659 | 2.957750 | 3.007823 | 3.468274 | 9.878021 | 4.056042 | 3.097851 | 5.530583 | 3.598641 |
| AlKa1 | 18.152008 | 18.716497 | 23.093379 | 18.091023 | 24.056628 | 30.405828 | 31.198052 | 20.699299 | 29.711265 | 29.943832 | 31.479239 | 13.091426 | 31.205452 | 25.858655 | 38.648601 | 15.005413 | 30.467934 | 27.043582 | 32.197182 | 41.523308 |
| SiKa1 | 156.412552 | 248.880577 | 114.895091 | 87.464102 | 439.806714 | 287.441760 | 181.936456 | 121.635144 | 246.351581 | 191.434469 | 257.677135 | 77.206932 | 262.553963 | 336.274695 | 286.550944 | 92.463220 | 143.829352 | 284.832603 | 116.160652 | 213.481131 |
| P Ka1 | 4.611640 | 5.846257 | 8.766614 | 11.197485 | 7.276804 | 6.924669 | 7.561065 | 5.395670 | 6.309478 | 7.305092 | 5.674787 | 4.417907 | 6.655097 | 7.274906 | 7.724800 | 6.383384 | 11.205821 | 10.384204 | 9.489972 | 9.091981 |
| S Ka1 | 6.960145 | 7.265606 | 12.448584 | 11.186908 | 6.453083 | 6.061763 | 6.827232 | 4.702914 | 5.636744 | 6.498142 | 5.565188 | 6.976644 | 5.512709 | 6.779515 | 7.713179 | 4.434883 | 8.233230 | 6.746400 | 8.011290 | 6.479888 |
| K Ka1 | 17.024065 | 18.971592 | 80.919365 | 21.784032 | 21.197013 | 49.302399 | 32.773712 | 37.632526 | 33.754635 | 46.282359 | 42.432907 | 5.829714 | 30.736989 | 16.876308 | 25.597214 | 8.144254 | 51.919925 | 27.148144 | 15.029782 | 72.777068 |
| CaKa1 | 25.708179 | 25.033837 | 90.315441 | 651.777243 | 12.652504 | 25.427933 | 74.823312 | 27.782363 | 19.728201 | 56.404279 | 19.213528 | 64.465652 | 22.607177 | 32.514556 | 25.542091 | 48.736895 | 105.400563 | 56.985758 | 421.268894 | 175.392087 |
| BaLa1 | 17.667120 | 15.247585 | 49.034978 | 14.800663 | 14.309237 | 31.689114 | 26.701182 | 21.452691 | 28.229138 | 45.662287 | 35.334998 | 9.377991 | 32.962834 | 15.991082 | 19.652092 | 12.618297 | 55.060131 | 19.191337 | 14.464255 | 23.881932 |
| TiKa1 | 19.584543 | 16.626744 | 55.718611 | 16.530799 | 15.247517 | 36.426294 | 30.218263 | 24.493566 | 32.479364 | 52.354709 | 40.475215 | 10.671056 | 37.829160 | 17.891748 | 21.836310 | 14.760594 | 63.841579 | 21.674431 | 16.602338 | 26.771753 |
| V Ka1 | 11.755847 | 13.894020 | 19.304887 | 10.459150 | 16.952705 | 17.659950 | 15.173303 | 14.643638 | 17.112200 | 19.927641 | 17.466641 | 16.360841 | 17.400805 | 12.708938 | 14.951586 | 14.208351 | 21.380396 | 13.437782 | 12.096986 | 15.430062 |
| CrKa1 | 14.680372 | 16.267790 | 13.984614 | 12.883654 | 17.646877 | 18.950901 | 16.943031 | 16.374689 | 18.361324 | 18.950554 | 17.340832 | 63.769522 | 18.859432 | 17.674003 | 17.435554 | 40.166122 | 33.104903 | 18.354045 | 17.096507 | 17.828404 |
| MnKa1 | 18.446864 | 19.962239 | 20.528783 | 28.864619 | 23.099315 | 127.620313 | 27.377951 | 115.881318 | 26.806443 | 31.633711 | 29.955221 | 44.245935 | 25.725446 | 36.105010 | 24.295831 | 45.940116 | 49.369353 | 22.944404 | 30.320546 | 28.013261 |
| FeKa1 | 198.690218 | 229.834767 | 633.975730 | 397.800539 | 67.949684 | 795.660390 | 383.460242 | 1237.954495 | 620.572993 | 571.935569 | 591.444206 | 1247.786769 | 540.358759 | 174.704899 | 674.796749 | 1863.252688 | 959.810173 | 310.825348 | 808.570860 | 444.882513 |

## Heavy Elements
| Unnamed: 0 | GT400H | GT17H | GT532H | GT2903H | GT3128H | GT2748H | GT6H | GT3127H | GT2671H | GT700H | GT700aH | GT700bH | GT2747H | GT530H | GT2097H | GT947H | GT3119H | GT704H | GT2349H | GT3012H | GT529H | GT1450H |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CaKa1 | 5.558618 | 1.522509 | 10.472589 | 32.798930 | 14.313808 | 11.172737 | 3.592548 | 13.824629 | 2.170758 | 2.880455 | 21.794389 | 3.079209 | 8.288162 | 23.964168 | 1.730426 | 7.700575 | 9.446231 | 133.905386 | 2.448575 | 75.561445 | 3.568312 | 2.387867 |
| BaLa1 | 7.424627 | 2.373609 | 5.778704 | 8.302613 | 9.306048 | 4.275662 | 2.729497 | 2.477002 | 3.256286 | 2.220042 | 4.265700 | 3.285945 | 7.610112 | 4.648269 | 4.002123 | 2.950295 | 3.283270 | 2.900563 | 2.480934 | 4.271163 | 3.303125 | 3.468028 |
| TiKa1 | 8.741156 | 2.737992 | 6.533924 | 10.110406 | 10.774550 | 4.775220 | 3.238447 | 3.422883 | 3.827521 | 2.474557 | 5.059920 | 3.772496 | 8.789972 | 5.833140 | 4.537283 | 3.734701 | 4.155947 | 3.259946 | 2.942806 | 4.980716 | 3.783481 | 4.083535 |
| V Ka1 | 2.789000 | 1.068305 | 2.140760 | 3.630730 | 3.461978 | 1.596061 | 1.121770 | 1.942312 | 1.234397 | 0.812934 | 1.448568 | 1.259013 | 2.488625 | 2.195948 | 1.575461 | 1.667418 | 2.288218 | 1.286882 | 1.456542 | 2.263031 | 1.204537 | 1.327445 |
| CrKa1 | 2.522456 | 0.690533 | 1.687982 | 5.497265 | 7.589289 | 1.263762 | 0.856251 | 28.707497 | 1.101934 | 0.664530 | 1.167285 | 0.756635 | 1.725052 | 1.633212 | 1.116148 | 1.253013 | 20.871434 | 0.859352 | 1.207292 | 3.569413 | 0.935312 | 1.127593 |
| MnKa1 | 56.192608 | 1.370593 | 5.661766 | 11.327854 | 15.174605 | 3.282403 | 7.320230 | 19.480796 | 2.889147 | 1.068444 | 3.301251 | 1.765906 | 5.549630 | 13.212521 | 2.123123 | 8.553358 | 19.075390 | 1.755438 | 1.737478 | 11.522969 | 1.875923 | 2.424361 |
| FeKa1 | 558.283449 | 39.228125 | 232.734104 | 868.531491 | 632.550465 | 208.742641 | 83.830083 | 1024.581787 | 183.639031 | 75.494075 | 165.662664 | 117.609911 | 290.654997 | 559.704381 | 159.589153 | 284.459089 | 1371.220472 | 184.018940 | 332.609721 | 735.215783 | 115.229551 | 145.256440 |
| NiKa1 | 6.278133 | 1.933369 | 3.519080 | 7.859846 | 13.710647 | 3.901819 | 2.222136 | 50.647256 | 2.290247 | 1.875215 | 2.374787 | 2.168426 | 3.123066 | 2.423560 | 2.148249 | 2.115549 | 66.690591 | 2.058644 | 2.577007 | 6.655200 | 2.079798 | 2.156268 |
| CuKa1 | 5.170473 | 2.439029 | 2.583688 | 5.147945 | 34.101277 | 2.850653 | 3.070337 | 3.839656 | 2.339197 | 1.754708 | 2.473002 | 2.063084 | 2.697581 | 2.995996 | 2.254917 | 2.284399 | 6.277438 | 2.238094 | 2.814246 | 3.059546 | 2.297359 | 2.301665 |
| ZnKa1 | 10.824445 | 4.516495 | 6.570746 | 16.204367 | 12.768475 | 4.504697 | 4.212446 | 7.890309 | 5.226886 | 4.323185 | 5.754274 | 5.242823 | 6.171025 | 6.339247 | 3.798738 | 5.104488 | 12.052778 | 6.752218 | 4.011500 | 7.625603 | 6.324783 | 4.306601 |
| ThLa1 | 23.738484 | 23.631265 | 22.950196 | 23.852175 | 23.114305 | 22.819353 | 23.438253 | 24.013777 | 24.057884 | 24.085756 | 23.998549 | 23.819617 | 23.498371 | 23.148186 | 23.040900 | 23.166060 | 24.568443 | 23.797751 | 19.436237 | 23.103128 | 23.563097 | 23.717197 |
| RbKa1 | 43.892398 | 34.358784 | 30.918997 | 45.401566 | 35.846190 | 32.379894 | 30.519125 | 26.267696 | 34.833496 | 31.083915 | 34.515785 | 33.710758 | 42.277256 | 32.501533 | 36.078395 | 32.953845 | 27.484776 | 42.437128 | 26.832335 | 27.461077 | 34.176526 | 33.852100 |
| U La1 | 34.152136 | 32.159158 | 30.989135 | 35.001854 | 31.810507 | 31.469753 | 31.460370 | 28.281537 | 31.432216 | 31.303929 | 32.016269 | 32.669766 | 33.137832 | 31.158617 | 32.232088 | 31.587315 | 29.099181 | 32.921442 | 26.908399 | 29.636906 | 32.094486 | 31.968944 |
| SrKa1 | 40.268247 | 42.224057 | 38.657314 | 87.887106 | 48.563544 | 41.088856 | 39.885717 | 34.345304 | 46.667194 | 38.955671 | 68.299533 | 41.935665 | 47.288550 | 64.911675 | 41.650777 | 42.051108 | 35.626996 | 93.312029 | 34.285136 | 44.724468 | 40.979764 | 43.536874 |
| Y Ka1 | 51.817582 | 50.048116 | 47.833423 | 49.937363 | 50.375267 | 47.788286 | 46.907573 | 42.487327 | 47.905013 | 47.822781 | 52.385464 | 48.153404 | 47.610530 | 46.058784 | 47.795019 | 44.574708 | 43.344259 | 47.956958 | 39.723544 | 42.655415 | 46.532820 | 48.747820 |
| ZrKa1 | 75.255871 | 59.985324 | 55.539550 | 79.668803 | 74.850780 | 61.523787 | 67.707742 | 48.744117 | 66.581960 | 56.475276 | 61.293800 | 59.494797 | 72.793970 | 61.217961 | 62.832323 | 54.525858 | 49.152047 | 115.949855 | 47.041764 | 49.429807 | 68.361439 | 61.814794 |
| NbKa1 | 58.682181 | 60.863328 | 59.127990 | 56.564675 | 56.666300 | 56.883418 | 59.792396 | 52.586491 | 56.079102 | 56.868944 | 57.051635 | 56.828140 | 54.293781 | 51.780205 | 58.002256 | 53.837492 | 51.115439 | 61.348801 | 47.745852 | 53.110378 | 56.520006 | 57.288875 |
| MoKa1 | 64.788667 | 66.598870 | 66.692755 | 62.986909 | 62.894192 | 62.444489 | 66.850162 | 56.569814 | 59.038702 | 61.307705 | 61.765814 | 61.861481 | 58.635259 | 56.411531 | 62.597820 | 57.816798 | 55.844962 | 58.338311 | 52.232692 | 55.847370 | 60.877038 | 62.522465 |

## Sheet3
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