**Table 1. Dataset: Experimental results of the doped layered Nickel-Cobalt-Manganese cathode materials with their lithium, nickel, cobalt, manganese, dopant compositions (Li, Ni, Co, Mn, M), crystal lattice constant a and c (LC\_a, LC\_c), crystal volume (CV), current density for charge and discharge (CD), minimum and maximum operating voltage (V\_min, V\_max), the molar mass of the dopant (Mr\_dopant), the number of electrons for the dopant atom (No\_electron\_M), dopant’s electronegativity (EN\_M), Number of isotopes for the dopant atom (E\_iso\_dopant), The first ionization energy for the dopant (E\_ionisation\_dopant), electron affinity of the dopant (EA\_dopant), atomic radius of the dopant atom (AR\_dopant), Ionic radius of the dopant ion (IR\_dopant), the initial discharge capacity (IC) and the 50th cycle discharge capacity (EC) of the doped NCM cathodes and the respective reference journals.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Dopant (M)** | **Li** | **Ni** | **Co** | **Mn** | **M** | **LC\_a** | **LC\_c** | **CV** | **CD** | **V\_min**  **/V** | **V\_max**  **/V** | **Mr\_dopant** | **Mr** | **No\_electron\_M** | **EN\_M** | **No\_iso\_dopant** | **E\_ionisation\_dopant** | **EA\_dopant** | **AR\_dopant** | **IR\_dopant** | **IC**  **/mAhg-1** | **EC**  **/mAhg-1** | **Ref** |
| Rb | 1.19 | 0.13 | 0.13 | 0.49 | 0.01 | 2.8543 | 14.246 | 100.513 | 50 | 2 | 4.8 | 85.47 | 82.47 | 37 | 0.82 | 20 | 403 | 0.485 | 265 | 235 | 220.33 | 207.91 | [1] |
| Rb | 1.17 | 0.13 | 0.13 | 0.44 | 0.03 | 2.8547 | 14.246 | 100.541 | 50 | 2 | 4.8 | 85.47 | 79.58 | 37 | 0.82 | 20 | 403 | 0.485 | 265 | 235 | 236.7 | 228.28 | [1] |
| Rb | 1.15 | 0.13 | 0.13 | 0.39 | 0.05 | 2.8605 | 14.2414 | 100.918 | 50 | 2 | 4.8 | 85.47 | 76.7 | 37 | 0.82 | 20 | 403 | 0.485 | 265 | 235 | 223.04 | 218.1 | [1] |
| Zr | 1 | 0.45 | 0.1 | 0.43 | 0.02 | 2.8804 | 14.2899 | 102.675 | 36 | 3 | 4.6 | 91.22 | 94.87 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 180.07 | 178.22 | [2] |
| Nb | 1 | 0.796 | 0.1 | 0.1 | 0.005 | 2.8774 | 14.2216 | 101.972 | 40 | 2.8 | 4.6 | 92.91 | 96.99 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 216.65 | 204.6 | [3] |
| Nb | 1 | 0.788 | 0.099 | 0.099 | 0.015 | 2.8782 | 14.2374 | 102.142 | 40 | 2.8 | 4.6 | 92.91 | 96.41 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 208.22 | 192.72 | [3] |
| Nb | 1 | 0.792 | 0.099 | 0.099 | 0.01 | 2.8793 | 14.2436 | 102.264 | 40 | 2.8 | 4.6 | 92.91 | 96.70 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 219.6 | 208 | [3] |
| Nb | 1 | 0.784 | 0.098 | 0.098 | 0.02 | 2.8777 | 14.2306 | 102.057 | 40 | 2.8 | 4.6 | 92.91 | 96.11 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 203.24 | 187.36 | [3] |
| Al | 0.99 | 0.5 | 0.2 | 0.3 | 0.01 | 2.8706 | 14.2502 | 101.692 | 170 | 2.7 | 4.6 | 26.98 | 96.49 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 187.69 | 178.7 | [4] |
| Al | 0.97 | 0.5 | 0.2 | 0.3 | 0.03 | 2.8734 | 14.2616 | 101.976 | 170 | 2.7 | 4.6 | 26.98 | 96.35 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 186.04 | 166.63 | [4] |
| Al | 0.95 | 0.5 | 0.2 | 0.3 | 0.05 | 2.8749 | 14.2653 | 102.11 | 170 | 2.7 | 4.6 | 26.98 | 96.21 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 156.21 | 140.12 | [4] |
| Al | 1 | 0.495 | 0.198 | 0.297 | 0.01 | 2.8617 | 14.1775 | 100.548 | 170 | 2.7 | 4.6 | 26.98 | 95.98 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 167.52 | 152.97 | [4] |
| Al | 1 | 0.485 | 0.194 | 0.291 | 0.03 | 2.8665 | 14.223 | 101.21 | 170 | 2.7 | 4.6 | 26.98 | 94.83 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 178.67 | 164.12 | [4] |
| Al | 1 | 0.475 | 0.19 | 0.285 | 0.05 | 2.8696 | 14.2737 | 101.793 | 170 | 2.7 | 4.6 | 26.98 | 93.67 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 174.06 | 160 | [4] |
| Ti | 1 | 0.499 | 0.2 | 0.299 | 0.002 | 2.8726 | 14.246 | 101.808 | 278 | 2.8 | 4.6 | 47.88 | 96.44 | 22 | 1.54 | 9 | 659 | 0.075 | 176 | 140 | 185.12 | 176.28 | [5] |
| Ti | 1 | 0.498 | 0.199 | 0.299 | 0.004 | 2.8726 | 14.2473 | 101.813 | 278 | 2.8 | 4.6 | 47.88 | 96.32 | 22 | 1.54 | 9 | 659 | 0.075 | 176 | 140 | 183.26 | 173.95 | [5] |
| Ti | 1 | 0.496 | 0.198 | 0.298 | 0.008 | 2.8729 | 14.249 | 101.849 | 278 | 2.8 | 4.6 | 47.88 | 96.09 | 22 | 1.54 | 9 | 659 | 0.075 | 176 | 140 | 176.28 | 170.23 | [5] |
| Ti | 1 | 0.485 | 0.194 | 0.291 | 0.03 | 2.8751 | 14.2615 | 102.092 | 278 | 2.8 | 4.6 | 47.88 | 94.83 | 22 | 1.54 | 9 | 659 | 0.075 | 176 | 140 | 173.02 | 156.74 | [5] |
| Nb | 1 | 0.498 | 0.199 | 0.299 | 0.005 | 2.8708 | 14.2462 | 101.68 | 126 | 3 | 4.3 | 92.91 | 96.27 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 169.7 | 155.01 | [6] |
| Nb | 1 | 0.495 | 0.198 | 0.297 | 0.01 | 2.8716 | 14.251 | 101.771 | 126 | 3 | 4.3 | 92.91 | 95.98 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 169.7 | 158.93 | [6] |
| Nb | 1 | 0.49 | 0.196 | 0.294 | 0.02 | 2.8721 | 14.2537 | 101.826 | 126 | 3 | 4.3 | 92.91 | 95.4 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 168.81 | 144.56 | [6] |
| Na | 0.99 | 0.5 | 0.2 | 0.3 | 0.01 | 2.8692 | 14.2447 | 101.556 | 34 | 2.5 | 4.35 | 22.99 | 96.49 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 161.05 | 150.61 | [7] |
| Na | 0.98 | 0.5 | 0.2 | 0.3 | 0.02 | 2.8693 | 14.2443 | 101.56 | 34 | 2.5 | 4.35 | 22.99 | 96.42 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 165.74 | 159.61 | [7] |
| Na | 0.97 | 0.5 | 0.2 | 0.3 | 0.03 | 2.8699 | 14.2455 | 101.611 | 34 | 2.5 | 4.35 | 22.99 | 96.35 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 138.35 | 123.94 | [7] |
| Na | 0.96 | 0.5 | 0.2 | 0.3 | 0.04 | 2.8711 | 14.2504 | 101.731 | 34 | 2.5 | 4.35 | 22.99 | 96.28 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 131.5 | 115.65 | [7] |
| Na | 0.95 | 0.5 | 0.2 | 0.3 | 0.05 | 2.8715 | 14.2516 | 101.768 | 34 | 2.5 | 4.35 | 22.99 | 96.21 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 125.02 | 105.92 | [7] |
| Zr | 1 | 0.498 | 0.199 | 0.299 | 0.005 | 2.8762 | 14.2615 | 102.172 | 20.3 | 3 | 4.6 | 91.22 | 96.27 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 201.64 | 166.41 | [8] |
| Zr | 1 | 0.495 | 0.198 | 0.297 | 0.01 | 2.8764 | 14.2634 | 102.2 | 20.3 | 3 | 4.6 | 91.22 | 95.98 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 199.68 | 158.83 | [8] |
| Zr | 1 | 0.49 | 0.196 | 0.294 | 0.02 | 2.883 | 14.2895 | 102.858 | 20.3 | 3 | 4.6 | 91.22 | 95.4 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 197.96 | 166.07 | [8] |
| Zr | 1.2 | 0.128 | 0.128 | 0.538 | 0.005 | 2.849 | 14.2182 | 99.945 | 250 | 2.5 | 4.6 | 91.22 | 84.99 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 145.6 | 127.36 | [8] |
| Zr | 1.2 | 0.128 | 0.128 | 0.538 | 0.007 | 2.8511 | 14.2266 | 100.15 | 250 | 2.5 | 4.6 | 91.22 | 84.87 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 144.1 | 132.94 | [8] |
| Zr | 1.2 | 0.126 | 0.126 | 0.536 | 0.01 | 2.852 | 14.2304 | 100.241 | 250 | 2.5 | 4.6 | 91.22 | 84.6 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 159.5 | 147.26 | [8] |
| Zr | 1.2 | 0.12 | 0.12 | 0.53 | 0.03 | 2.8517 | 14.2344 | 100.249 | 250 | 2.5 | 4.6 | 91.22 | 83.56 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 133.5 | 121 | [8] |
| V | 1 | 0.495 | 0.198 | 0.297 | 0.01 | 2.8794 | 14.2787 | 102.52 | 190 | 2.7 | 4.4 | 50.94 | 95.98 | 23 | 1.63 | 9 | 651 | 0.527 | 171 | 135 | 155.4 | 147.48 | [9] |
| V | 1 | 0.485 | 0.194 | 0.291 | 0.03 | 2.881 | 14.2813 | 102.652 | 190 | 2.7 | 4.4 | 50.94 | 94.83 | 23 | 1.63 | 9 | 651 | 0.527 | 171 | 135 | 170.5 | 164.58 | [9] |
| Zr | 1.05 | 0.792 | 0.099 | 0.099 | 0.01 | 2.8744 | 14.2167 | 101.724 | 32 | 2.8 | 4.3 | 91.22 | 97.05 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 183.27 | 158.51 | [10] |
| Cu | 1.25 | 0.125 | 0.1 | 0.5 | 0.025 | 2.8415 | 14.093 | 98.544 | 20 | 2 | 4.8 | 63.55 | 81.37 | 29 | 1.9 | 11 | 746 | 1.235 | 145 | 135 | 230.1 | 202.7 | [11] |
| Cu | 1.25 | 0.125 | 0.075 | 0.5 | 0.05 | 2.8389 | 14.145 | 98.727 | 20 | 2 | 4.8 | 63.55 | 79.9 | 29 | 1.9 | 11 | 746 | 1.235 | 145 | 135 | 225.2 | 207.4 | [11] |
| Cu | 1.25 | 0.125 | 0.05 | 0.5 | 0.075 | 2.8241 | 13.888 | 95.925 | 20 | 2 | 4.8 | 63.55 | 78.43 | 29 | 1.9 | 11 | 746 | 1.235 | 145 | 135 | 221 | 191.7 | [11] |
| Cu | 1.25 | 0.125 | 0.025 | 0.5 | 0.1 | 2.824 | 13.888 | 95.918 | 20 | 2 | 4.8 | 63.55 | 76.95 | 29 | 1.9 | 11 | 746 | 1.235 | 145 | 135 | 155.6 | 120.1 | [11] |
| Al | 1.2 | 0.13 | 0.13 | 0.52 | 0.02 | 2.8534 | 14.2377 | 100.391 | 22.5 | 2 | 4.8 | 26.98 | 84.19 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 226.65 | 156.5 | [12] |
| La | 1 | 0.79 | 0.1 | 0.1 | 0.01 | 2.8709 | 14.2005 | 101.361 | 200 | 2.8 | 4.3 | 138.91 | 96.69 | 57 | 1.1 | 19 | 538 | 0.557 | 195 | 195 | 189.46 | 173.97 | [13] |
| La | 1 | 0.77 | 0.1 | 0.1 | 0.03 | 2.8712 | 14.2013 | 101.388 | 200 | 2.8 | 4.3 | 138.91 | 95.52 | 57 | 1.1 | 19 | 538 | 0.557 | 195 | 195 | 172.54 | 170.47 | [13] |
| Mg | 1 | 0.59 | 0.2 | 0.2 | 0.01 | 2.8695 | 14.2223 | 101.418 | 160 | 2.8 | 4.3 | 24.31 | 96.34 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 177.07 | 162.22 | [14] |
| Mg | 1 | 0.57 | 0.2 | 0.2 | 0.03 | 2.87 | 14.2244 | 101.468 | 160 | 2.8 | 4.3 | 24.31 | 95.17 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 174.7 | 155.55 | [14] |
| Mg | 1 | 0.55 | 0.2 | 0.2 | 0.05 | 2.8673 | 14.2248 | 101.28 | 160 | 2.8 | 4.3 | 24.31 | 94 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 174.17 | 146.3 | [14] |
| Zr | 1 | 0.496 | 0.199 | 0.298 | 0.007 | 2.8671 | 14.222 | 101.246 | 155 | 3 | 4.6 | 91.22 | 96.13 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 190.17 | 170.25 | [15] |
| Mg | 1.198 | 0.129 | 0.129 | 0.535 | 0.01 | 2.854 | 14.243 | 100.471 | 40 | 2 | 4.8 | 24.31 | 84.82 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 231.69 | 220.59 | [16] |
| Mg | 1.196 | 0.127 | 0.127 | 0.529 | 0.02 | 2.859 | 14.28 | 101.085 | 40 | 2 | 4.8 | 24.31 | 84.31 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 277.28 | 259.56 | [16] |
| Mg | 1.197 | 0.126 | 0.126 | 0.524 | 0.03 | 2.853 | 14.234 | 100.337 | 40 | 2 | 4.8 | 24.31 | 83.92 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 246.39 | 208.09 | [16] |
| Mg | 1.192 | 0.125 | 0.125 | 0.518 | 0.04 | 2.852 | 14.24 | 100.309 | 40 | 2 | 4.8 | 24.31 | 83.43 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 205.22 | 182.35 | [16] |
| Cs | 1.188 | 0.13 | 0.13 | 0.54 | 0.012 | 2.8503 | 14.1932 | 99.86 | 125 | 2 | 4.8 | 132.91 | 85.2 | 55 | 0.79 | 22 | 376 | 0.471 | 298 | 260 | 210 | 179.85 | [17] |
| Cs | 1.164 | 0.13 | 0.13 | 0.54 | 0.036 | 2.8493 | 14.1944 | 99.799 | 125 | 2 | 4.8 | 132.91 | 85.04 | 55 | 0.79 | 22 | 376 | 0.471 | 298 | 260 | 221 | 188.06 | [17] |
| Cs | 1.104 | 0.13 | 0.13 | 0.54 | 0.096 | 2.8502 | 14.1954 | 99.869 | 125 | 2 | 4.8 | 132.91 | 84.62 | 55 | 0.79 | 22 | 376 | 0.471 | 298 | 260 | 214 | 185.07 | [17] |
| Cs | 1.14 | 0.13 | 0.13 | 0.54 | 0.06 | 2.8501 | 14.1953 | 99.861 | 125 | 2 | 4.8 | 132.91 | 84.87 | 55 | 0.79 | 22 | 376 | 0.471 | 298 | 260 | 232 | 197.01 | [17] |
| Mg | 1.128 | 0.2 | 0.2 | 0.467 | 0.005 | 2.8503 | 14.141 | 99.493 | 25 | 2 | 4.8 | 24.31 | 89.01 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 313.92 | 243.81 | [18] |
| Mg | 1.123 | 0.2 | 0.2 | 0.467 | 0.01 | 2.8513 | 14.1607 | 99.701 | 25 | 2 | 4.8 | 24.31 | 88.97 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 301.55 | 259.28 | [18] |
| Mg | 1.118 | 0.2 | 0.2 | 0.467 | 0.015 | 2.8514 | 14.1918 | 99.927 | 25 | 2 | 4.8 | 24.31 | 88.94 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 305.67 | 246.91 | [18] |
| Mg | 1.113 | 0.2 | 0.2 | 0.467 | 0.02 | 2.8515 | 14.1959 | 99.963 | 25 | 2 | 4.8 | 24.31 | 88.91 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 287.11 | 248.97 | [18] |
| Mo | 1 | 0.596 | 0.199 | 0.199 | 0.007 | 2.8688 | 14.2318 | 101.436 | 200 | 3 | 4.6 | 95.94 | 96.58 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 199.09 | 161.6 | [19] |
| Al | 1 | 0.333 | 0.345 | 0.333 | 0.02 | 2.86 | 14.237 | 100.851 | 10 | 2.5 | 4.3 | 26.98 | 97.11 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 155.33 | 148 | [20] |
| Al | 1 | 0.333 | 0.293 | 0.333 | 0.04 | 2.861 | 14.242 | 100.957 | 10 | 2.5 | 4.3 | 26.98 | 94.05 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 159.72 | 131.94 | [20] |
| Al | 1 | 0.333 | 0.294 | 0.329 | 0.06 | 2.861 | 14.247 | 100.993 | 10 | 2.5 | 4.3 | 26.98 | 93.89 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 162.18 | 144.4 | [20] |
| Al | 1 | 0.333 | 0.261 | 0.32 | 0.08 | 2.861 | 14.25 | 101.014 | 10 | 2.5 | 4.3 | 26.98 | 91.45 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 144.3 | 116.64 | [20] |
| Al | 1 | 0.333 | 0.234 | 0.317 | 0.09 | 2.859 | 14.253 | 100.894 | 10 | 2.5 | 4.3 | 26.98 | 89.69 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 135.47 | 122.13 | [20] |
| Al | 1 | 0.333 | 0.213 | 0.333 | 0.12 | 2.862 | 14.269 | 101.219 | 10 | 2.5 | 4.3 | 26.98 | 89.35 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 125.68 | 112.16 | [20] |
| Al | 1 | 0.333 | 0.193 | 0.333 | 0.14 | 2.86 | 14.256 | 100.986 | 10 | 2.5 | 4.3 | 26.98 | 88.15 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 141.59 | 122.89 | [20] |
| Zr | 1 | 0.5 | 0.2 | 0.29 | 0.01 | 2.8666 | 14.1608 | 100.777 | 32 | 2.8 | 4.5 | 91.22 | 96.01 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 193 | 174 | [21] |
| Zr | 1 | 0.5 | 0.2 | 0.28 | 0.02 | 2.8683 | 14.1681 | 100.95 | 32 | 2.8 | 4.5 | 91.22 | 95.46 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 189 | 170 | [21] |
| Zr | 1 | 0.5 | 0.2 | 0.27 | 0.03 | 2.8722 | 14.1859 | 101.346 | 32 | 2.8 | 4.5 | 91.22 | 94.91 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 183 | 160 | [21] |
| Zr | 1 | 0.5 | 0.2 | 0.26 | 0.04 | 2.8725 | 14.2233 | 101.637 | 32 | 2.8 | 4.5 | 91.22 | 94.36 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 179 | 151 | [21] |
| Zr | 1 | 0.5 | 0.2 | 0.25 | 0.05 | 2.873 | 14.2319 | 101.731 | 32 | 2.8 | 4.5 | 91.22 | 93.81 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 177 | 144 | [21] |
| Al | 1 | 0.8 | 0.1 | 0.09 | 0.01 | 2.8714 | 14.204 | 101.421 | 170 | 2.7 | 4.3 | 26.98 | 96.73 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 149.43 | 142.95 | [22] |
| Al | 1 | 0.8 | 0.1 | 0.09 | 0.01 | 2.8695 | 14.199 | 101.251 | 170 | 2.7 | 4.3 | 26.98 | 96.73 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 162.37 | 151.78 | [22] |
| Eu | 1 | 0.498 | 0.199 | 0.299 | 0.005 | 2.8689 | 14.2459 | 101.545 | 275 | 2.8 | 4.25 | 151.97 | 96.32 | 63 | 1.2 | 21 | 547 | 0.116 | 231 | 185 | 144.49 | 140.14 | [23] |
| Eu | 1 | 0.495 | 0.198 | 0.297 | 0.01 | 2.8692 | 14.2461 | 101.566 | 275 | 2.8 | 4.25 | 151.97 | 95.98 | 63 | 1.2 | 21 | 547 | 0.116 | 231 | 185 | 132.77 | 127.47 | [23] |
| Eu | 1 | 0.49 | 0.196 | 0.294 | 0.02 | 2.8707 | 14.2477 | 101.684 | 275 | 2.8 | 4.25 | 151.97 | 95.4 | 63 | 1.2 | 21 | 547 | 0.116 | 231 | 185 | 129.95 | 123.29 | [23] |
| Nd | 1 | 0.498 | 0.199 | 0.299 | 0.004 | 2.8668 | 14.2329 | 101.302 | 40 | 2.8 | 4.6 | 144.24 | 96.32 | 60 | 1.14 | 16 | 533 | 0.097 | 206 | 185 | 196.41 | 181.79 | [24] |
| Nd | 1 | 0.496 | 0.198 | 0.298 | 0.008 | 2.8678 | 14.2408 | 101.429 | 40 | 2.8 | 4.6 | 144.24 | 96.09 | 60 | 1.14 | 16 | 533 | 0.097 | 206 | 185 | 202.5 | 185 | [24] |
| Nd | 1 | 0.494 | 0.198 | 0.296 | 0.012 | 2.8681 | 14.2435 | 101.47 | 40 | 2.8 | 4.6 | 144.24 | 95.86 | 60 | 1.14 | 16 | 533 | 0.097 | 206 | 185 | 193.12 | 174.67 | [24] |
| Mo | 1.2 | 0.539 | 0.129 | 0.129 | 0.002 | 2.8489 | 14.2092 | 99.875 | 250 | 2 | 4.6 | 95.94 | 86.7 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 210.51 | 199.16 | [25] |
| Mo | 1.2 | 0.538 | 0.128 | 0.128 | 0.005 | 2.8528 | 14.2357 | 100.335 | 250 | 2 | 4.6 | 95.94 | 86.53 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 203.27 | 194.56 | [25] |
| Mo | 1.2 | 0.538 | 0.128 | 0.128 | 0.007 | 2.8527 | 14.2375 | 100.341 | 250 | 2 | 4.6 | 95.94 | 86.43 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 221.04 | 216.92 | [25] |
| Mo | 1.2 | 0.535 | 0.125 | 0.125 | 0.015 | 2.8513 | 14.2189 | 100.111 | 250 | 2 | 4.6 | 95.94 | 85.96 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 196.03 | 180.08 | [25] |
| V | 1.2 | 0.53 | 0.13 | 0.13 | 0.01 | 2.8477 | 14.193 | 99.677 | 55 | 2 | 4.8 | 50.94 | 86.24 | 23 | 1.63 | 9 | 651 | 0.527 | 171 | 135 | 191.45 | 167.98 | [26] |
| V | 1.2 | 0.52 | 0.13 | 0.13 | 0.02 | 2.8525 | 14.2226 | 100.222 | 55 | 2 | 4.8 | 50.94 | 85.65 | 23 | 1.63 | 9 | 651 | 0.527 | 171 | 135 | 188.66 | 182.58 | [26] |
| V | 1.2 | 0.51 | 0.13 | 0.13 | 0.03 | 2.849 | 14.2199 | 99.957 | 55 | 2 | 4.8 | 50.94 | 85.06 | 23 | 1.63 | 9 | 651 | 0.527 | 171 | 135 | 186.78 | 186.26 | [26] |
| V | 1.2 | 0.5 | 0.13 | 0.13 | 0.04 | 2.851 | 14.2 | 99.957 | 55 | 2 | 4.8 | 50.94 | 84.48 | 23 | 1.63 | 9 | 651 | 0.527 | 171 | 135 | 181.25 | 173.37 | [26] |
| Cr | 1.255 | 0.265 | 0.114 | 0.384 | 0.014 | 2.8619 | 14.256 | 101.12 | 138 | 2 | 4.6 | 52 | 84.08 | 24 | 1.66 | 9 | 653 | 0.675 | 166 | 140 | 198.89 | 193.6 | [27] |
| V | 1.2 | 0.195 | 0.075 | 0.515 | 0.015 | 2.8572 | 14.2519 | 100.759 | 250 | 2 | 4.8 | 50.94 | 84.49 | 23 | 1.63 | 9 | 651 | 0.527 | 171 | 135 | 169.01 | 152.2 | [28] |
| V | 1.2 | 0.19 | 0.071 | 0.51 | 0.03 | 2.8601 | 14.2455 | 100.918 | 250 | 2 | 4.8 | 50.94 | 83.68 | 23 | 1.63 | 9 | 651 | 0.527 | 171 | 135 | 164.7 | 143.3 | [28] |
| V | 1.2 | 0.18 | 0.06 | 0.5 | 0.06 | 2.8513 | 14.2258 | 100.162 | 250 | 2 | 4.8 | 50.94 | 81.9 | 23 | 1.63 | 9 | 651 | 0.527 | 171 | 135 | 150.2 | 149.5 | [28] |
| Ti | 1 | 0.792 | 0.099 | 0.099 | 0.01 | 2.8729 | 14.2112 | 101.579 | 200 | 2.8 | 4.5 | 47.88 | 96.7 | 22 | 1.54 | 9 | 659 | 0.075 | 176 | 140 | 187.68 | 171.23 | [29] |
| Ti | 1 | 0.784 | 0.098 | 0.098 | 0.02 | 2.8733 | 14.2147 | 101.632 | 200 | 2.8 | 4.5 | 47.88 | 96.11 | 22 | 1.54 | 9 | 659 | 0.075 | 176 | 140 | 182.76 | 173.48 | [29] |
| Ti | 1 | 0.776 | 0.097 | 0.097 | 0.03 | 2.8741 | 14.2226 | 101.745 | 200 | 2.8 | 4.5 | 47.88 | 95.53 | 22 | 1.54 | 9 | 659 | 0.075 | 176 | 140 | 170.21 | 160.79 | [29] |
| Ti | 1 | 0.76 | 0.095 | 0.095 | 0.05 | 2.8773 | 14.2423 | 102.113 | 200 | 2.8 | 4.5 | 47.88 | 94.36 | 22 | 1.54 | 9 | 659 | 0.075 | 176 | 140 | 158.99 | 151.66 | [29] |
| Nb | 1 | 0.792 | 0.099 | 0.099 | 0.01 | 2.8793 | 14.2436 | 102.264 | 200 | 2.8 | 4.6 | 92.91 | 96.7 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 191.88 | 182.09 | [3] |
| Zr | 1 | 0.333 | 0.333 | 0.33 | 0.003 | 2.8599 | 14.2322 | 100.81 | 32 | 2.5 | 4.5 | 91.22 | 96.28 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 173.4 | 167.28 | [30] |
| Zr | 1 | 0.333 | 0.333 | 0.323 | 0.01 | 2.8611 | 14.2335 | 100.902 | 32 | 2.5 | 4.5 | 91.22 | 95.91 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 166.3 | 149.88 | [30] |
| Zr | 1 | 0.333 | 0.333 | 0.317 | 0.017 | 2.8611 | 14.2349 | 100.911 | 32 | 2.5 | 4.5 | 91.22 | 95.55 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 144.9 | 133.58 | [30] |
| Ru | 1.25 | 0.121 | 0.118 | 0.553 | 0.01 | 2.866 | 14.293 | 101.673 | 50 | 2 | 4.8 | 101.07 | 85.11 | 44 | 2.2 | 16 | 710 | 1.046 | 178 | 130 | 258 | 214.96 | [31] |
| Mg | 1.01 | 0.599 | 0.189 | 0.201 | 0.01 | 2.8661 | 14.2119 | 101.102 | 160 | 2.8 | 4.3 | 24.31 | 96.35 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 179.42 | 150.11 | [32] |
| Mg | 1 | 0.601 | 0.172 | 0.202 | 0.029 | 2.8659 | 14.2146 | 101.108 | 160 | 2.8 | 4.3 | 24.31 | 95.45 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 175.99 | 151.52 | [32] |
| Mg | 1.01 | 0.601 | 0.151 | 0.199 | 0.051 | 2.8675 | 14.2215 | 101.27 | 160 | 2.8 | 4.3 | 24.31 | 94.12 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 174.76 | 145.21 | [32] |
| Nb | 1 | 0.333 | 0.333 | 0.323 | 0.01 | 2.8616 | 14.235 | 100.95 | 200 | 3 | 4.6 | 92.91 | 95.91 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 176.26 | 160.4 | [33] |
| Nb | 1 | 0.333 | 0.333 | 0.313 | 0.02 | 2.8623 | 14.237 | 101.013 | 200 | 3 | 4.6 | 92.91 | 95.36 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 177.87 | 167.2 | [33] |
| Nb | 1 | 0.333 | 0.333 | 0.303 | 0.03 | 2.8629 | 14.24 | 101.077 | 200 | 3 | 4.6 | 92.91 | 94.81 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 176.36 | 155.9 | [33] |
| Al | 1 | 0.6 | 0.2 | 0.1 | 0.1 | 2.8659 | 14.1786 | 100.852 | 100 | 2.5 | 4.9 | 26.98 | 91.44 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 204.27 | 158.55 | [34] |
| Na | 0.99 | 0.6 | 0.2 | 0.2 | 0.01 | 2.8648 | 14.2115 | 101.009 | 160 | 2.8 | 4.3 | 22.99 | 96.86 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 161.8 | 157.93 | [35] |
| Na | 0.97 | 0.6 | 0.2 | 0.2 | 0.03 | 2.8674 | 14.2146 | 101.214 | 160 | 2.8 | 4.3 | 22.99 | 96.72 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 163.33 | 156.22 | [35] |
| Sn | 1 | 0.6 | 0.19 | 0.2 | 0.01 | 2.8729 | 14.2305 | 101.716 | 150 | 2.5 | 4.3 | 118.71 | 96.34 | 50 | 1.96 | 28 | 709 | 1.112 | 145 | 145 | 136.25 | 134.58 | [36] |
| Sn | 1 | 0.6 | 0.18 | 0.2 | 0.02 | 2.8766 | 14.2425 | 102.063 | 150 | 2.5 | 4.3 | 118.71 | 95.75 | 50 | 1.96 | 28 | 709 | 1.112 | 145 | 145 | 139.58 | 137.92 | [36] |
| Sn | 1 | 0.6 | 0.17 | 0.2 | 0.03 | 2.8824 | 14.2598 | 102.599 | 150 | 2.5 | 4.3 | 118.71 | 95.16 | 50 | 1.96 | 28 | 709 | 1.112 | 145 | 145 | 132.5 | 128.75 | [36] |
| Sn | 1 | 0.6 | 0.16 | 0.2 | 0.04 | 2.8895 | 14.2755 | 103.219 | 150 | 2.5 | 4.3 | 118.71 | 94.57 | 50 | 1.96 | 28 | 709 | 1.112 | 145 | 145 | 120.83 | 116.67 | [36] |
| Mg | 1.192 | 0.138 | 0.138 | 0.54 | 0.03 | 2.8451 | 14.1895 | 99.473 | 20 | 2 | 4.7 | 24.31 | 86.17 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 257.28 | 223.53 | [37] |
| Mg | 1.161 | 0.136 | 0.138 | 0.54 | 0.069 | 2.8456 | 14.195 | 99.541 | 20 | 2 | 4.7 | 24.31 | 85.84 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 266.12 | 221.67 | [37] |
| Cr | 1.01 | 0.79 | 0.096 | 0.094 | 0.01 | 2.8689 | 14.186 | 101.116 | 900 | 2.7 | 4.3 | 52 | 96.2 | 24 | 1.66 | 9 | 653 | 0.675 | 166 | 140 | 163.32 | 148.62 | [38] |
| Na | 1.05 | 0.2 | 0.3 | 0.4 | 0.05 | 2.8511 | 14.2236 | 100.128 | 40 | 2 | 4.6 | 22.99 | 90.68 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 194.74 | 183.94 | [39] |
| Na | 1 | 0.2 | 0.3 | 0.4 | 0.1 | 2.8523 | 14.2407 | 100.332 | 40 | 2 | 4.6 | 22.99 | 90.33 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 178.98 | 166.42 | [39] |
| Mo | 1 | 0.332 | 0.332 | 0.332 | 0.005 | 2.8671 | 14.2443 | 101.405 | 20 | 2.3 | 4.6 | 95.94 | 96.17 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 205.43 | 174.57 | [40] |
| Mo | 1 | 0.33 | 0.33 | 0.33 | 0.01 | 2.8684 | 14.2547 | 101.571 | 20 | 2.3 | 4.6 | 95.94 | 95.89 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 222.57 | 186.29 | [40] |
| Mo | 1 | 0.327 | 0.327 | 0.327 | 0.02 | 2.8671 | 14.2689 | 101.58 | 20 | 2.3 | 4.6 | 95.94 | 95.31 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 188 | 168.29 | [40] |
| Nb | 1.2 | 0.127 | 0.127 | 0.537 | 0.01 | 2.8512 | 14.2284 | 100.171 | 250 | 2.5 | 4.6 | 92.91 | 84.71 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 185.9 | 159.35 | [41] |
| Nb | 1.2 | 0.123 | 0.123 | 0.533 | 0.02 | 2.8532 | 14.2388 | 100.385 | 250 | 2.5 | 4.6 | 92.91 | 84.14 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 213.7 | 191.68 | [41] |
| Nb | 1.2 | 0.12 | 0.12 | 0.53 | 0.03 | 2.854 | 14.2462 | 100.493 | 250 | 2.5 | 4.6 | 92.91 | 83.56 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 197.7 | 170.47 | [41] |
| Nb | 1 | 0.333 | 0.333 | 0.313 | 0.02 | 2.867 | 14.2638 | 101.537 | 160 | 2.7 | 4.3 | 92.91 | 95.36 | 41 | 1.6 | 24 | 652 | 0.917 | 198 | 145 | 171.65 | 162.92 | [42] |
| Mg | 0.967 | 0.909 | 0.086 | 0.012 | 0.011 | 2.873 | 14.1907 | 101.439 | 90 | 2.6 | 4.2 | 24.31 | 97.79 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 190.31 | 126.36 | [43] |
| Mg | 0.963 | 0.91 | 0.064 | 0.022 | 0.027 | 2.8734 | 14.2181 | 101.663 | 90 | 2.6 | 4.2 | 24.31 | 97.07 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 183.53 | 159.27 | [43] |
| Mg | 0.963 | 0.912 | 0.046 | 0.032 | 0.031 | 2.8738 | 14.2192 | 101.7 | 90 | 2.6 | 4.2 | 24.31 | 96.68 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 180.63 | 118.94 | [43] |
| Cu | 1 | 0.336 | 0.333 | 0.331 | 0 | 2.8606 | 14.2299 | 100.843 | 150 | 3 | 4.3 | 63.55 | 96.47 | 29 | 1.9 | 11 | 746 | 1.235 | 145 | 135 | 144.58 | 131.81 | [44] |
| Cu | 1 | 0.323 | 0.346 | 0.319 | 0.011 | 2.8577 | 14.2219 | 100.582 | 150 | 3 | 4.3 | 63.55 | 95.85 | 29 | 1.9 | 11 | 746 | 1.235 | 145 | 135 | 137.5 | 129.71 | [44] |
| Cu | 1 | 0.327 | 0.339 | 0.329 | 0.016 | 2.8598 | 14.2277 | 100.771 | 150 | 3 | 4.3 | 63.55 | 96.15 | 29 | 1.9 | 11 | 746 | 1.235 | 145 | 135 | 86.25 | 85.2 | [44] |
| Fe | 1 | 0.332 | 0.344 | 0.324 | 0 | 2.8614 | 14.2324 | 100.917 | 150 | 2.5 | 4.3 | 55.85 | 96.5 | 26 | 1.83 | 10 | 763 | 0.153 | 156 | 140 | 144.16 | 136.93 | [45] |
| Fe | 1 | 0.342 | 0.335 | 0.323 | 0.002 | 2.8618 | 14.233 | 100.95 | 150 | 2.5 | 4.3 | 55.85 | 96.5 | 26 | 1.83 | 10 | 763 | 0.153 | 156 | 140 | 144.87 | 138 | [45] |
| Fe | 1 | 0.319 | 0.349 | 0.332 | 0.009 | 2.8626 | 14.2381 | 101.042 | 150 | 2.5 | 4.3 | 55.85 | 96.47 | 26 | 1.83 | 10 | 763 | 0.153 | 156 | 140 | 137.25 | 133 | [45] |
| Mg | 1.01 | 0.602 | 0.202 | 0.191 | 0.01 | 2.8691 | 14.2192 | 101.367 | 160 | 2.8 | 4.5 | 24.31 | 96.74 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 195 | 180.58 | [46] |
| Mg | 1.006 | 0.6 | 0.2 | 0.169 | 0.03 | 2.8687 | 14.219 | 101.337 | 160 | 2.8 | 4.5 | 24.31 | 95.27 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 182.1 | 174.04 | [46] |
| Mg | 1.007 | 0.598 | 0.201 | 0.15 | 0.05 | 2.8696 | 14.2205 | 101.412 | 160 | 2.8 | 4.5 | 24.31 | 94.17 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 179.8 | 169.67 | [46] |
| Na | 1.142 | 0.18 | 0.105 | 0.548 | 0.025 | 2.8577 | 14.2441 | 100.74 | 100 | 2.5 | 4.6 | 22.99 | 86.78 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 204.09 | 181.36 | [47] |
| Na | 1.117 | 0.18 | 0.105 | 0.548 | 0.05 | 2.8573 | 14.2541 | 100.782 | 100 | 2.5 | 4.6 | 22.99 | 86.61 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 202.73 | 185.45 | [47] |
| Na | 1.092 | 0.18 | 0.105 | 0.548 | 0.075 | 2.8557 | 14.2558 | 100.68 | 100 | 2.5 | 4.6 | 22.99 | 86.44 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 213.18 | 188.18 | [47] |
| Na | 1.067 | 0.18 | 0.105 | 0.548 | 0.1 | 2.8569 | 14.2301 | 100.586 | 100 | 2.5 | 4.6 | 22.99 | 86.26 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 193.64 | 152.27 | [47] |
| Sn | 1 | 0.6 | 0.15 | 0.2 | 0.05 | 2.8864 | 14.2801 | 103.034 | 160 | 2.5 | 4.3 | 118.71 | 93.98 | 50 | 1.96 | 28 | 709 | 1.112 | 145 | 145 | 128.57 | 127.76 | [48] |
| Fe | 1 | 0.6 | 0.15 | 0.2 | 0.05 | 2.8774 | 14.2525 | 102.195 | 160 | 2.5 | 4.3 | 55.85 | 93.98 | 26 | 1.83 | 10 | 763 | 0.153 | 156 | 140 | 125.71 | 125.31 | [48] |
| Al | 1 | 0.6 | 0.15 | 0.2 | 0.05 | 2.8657 | 14.239 | 101.268 | 160 | 2.5 | 4.3 | 26.98 | 93.98 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 128.57 | 118.78 | [48] |
| Zr | 1 | 0.495 | 0.198 | 0.297 | 0.01 | 2.8764 | 14.2634 | 102.2 | 160 | 3 | 4.6 | 91.22 | 95.98 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 182.33 | 162.67 | [49] |
| Al | 1 | 0.45 | 0.05 | 0.45 | 0.05 | 2.8796 | 14.2812 | 102.556 | 12 | 2 | 4.3 | 26.98 | 93.02 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 147.21 | 125.9 | [50] |
| Mg | 1 | 0.776 | 0.097 | 0.097 | 0.03 | 2.8689 | 14.2162 | 101.332 | 80 | 3 | 4.5 | 24.31 | 95.53 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 214.58 | 202.37 | [51] |
| Ce | 1 | 0.791 | 0.098 | 0.1 | 0.012 | 2.8645 | 14.1623 | 100.638 | 40 | 2.75 | 4.5 | 140.12 | 96.58 | 58 | 1.12 | 19 | 534 | 0.57 | 185 | 185 | 179.2 | 161.1 | [52] |
| Ce | 1 | 0.799 | 0.097 | 0.092 | 0.014 | 2.8643 | 14.167 | 100.657 | 40 | 2.75 | 4.5 | 140.12 | 96.63 | 58 | 1.12 | 19 | 534 | 0.57 | 185 | 185 | 190.2 | 186.37 | [52] |
| Ce | 1 | 0.793 | 0.099 | 0.096 | 0.012 | 2.8641 | 14.1678 | 100.649 | 40 | 2.75 | 4.5 | 140.12 | 96.56 | 58 | 1.12 | 19 | 534 | 0.57 | 185 | 185 | 196.8 | 196.04 | [52] |
| Ce | 1 | 0.799 | 0.091 | 0.098 | 0.013 | 2.866 | 14.1774 | 100.851 | 40 | 2.75 | 4.5 | 140.12 | 96.56 | 58 | 1.12 | 19 | 534 | 0.57 | 185 | 185 | 199.1 | 189.67 | [52] |
| Mo | 1 | 0.499 | 0.209 | 0.281 | 0.011 | 2.8732 | 14.268 | 102.006 | 200 | 3 | 4.6 | 95.94 | 95.97 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 174.8 | 161.79 | [53] |
| Mo | 1 | 0.519 | 0.217 | 0.26 | 0.004 | 2.876 | 14.2702 | 102.221 | 200 | 3 | 4.6 | 95.94 | 96.5 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 176.8 | 132.74 | [53] |
| Mo | 1 | 0.512 | 0.202 | 0.263 | 0.024 | 2.8781 | 14.2748 | 102.403 | 200 | 3 | 4.6 | 95.94 | 95.29 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 170.4 | 157.5 | [53] |
| Mo | 1 | 0.499 | 0.203 | 0.253 | 0.046 | 2.8837 | 14.2881 | 102.898 | 200 | 3 | 4.6 | 95.94 | 94.06 | 42 | 2.16 | 20 | 684 | 0.747 | 190 | 145 | 165.12 | 150.6 | [53] |
| W | 1 | 0.788 | 0.107 | 0.1 | 0.006 | 2.8799 | 14.2311 | 102.217 | 200 | 2.8 | 4.5 | 183.84 | 96.96 | 74 | 2.36 | 22 | 770 | 0.816 | 193 | 135 | 190.33 | 183.67 | [54] |
| Y | 1.2 | 0.534 | 0.133 | 0.126 | 0.007 | 2.8513 | 14.2699 | 100.47 | 20 | 2 | 4.6 | 88.91 | 86.45 | 39 | 1.22 | 21 | 600 | 0.307 | 212 | 185 | 349.7 | 275.84 | [55] |
| Y | 1.2 | 0.534 | 0.133 | 0.12 | 0.013 | 2.8526 | 14.2187 | 100.201 | 20 | 2 | 4.6 | 88.91 | 86.08 | 39 | 1.22 | 21 | 600 | 0.307 | 212 | 185 | 262.1 | 252.07 | [55] |
| Zr | 1.013 | 0.801 | 0.095 | 0.097 | 0.004 | 2.8699 | 14.2003 | 101.289 | 20 | 2.8 | 4.5 | 91.22 | 96.97 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 176.91 | 164.54 | [56] |
| Zr | 1.015 | 0.796 | 0.095 | 0.096 | 0.009 | 2.8707 | 14.2051 | 101.38 | 20 | 2.8 | 4.5 | 91.22 | 96.64 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 174.52 | 159.3 | [56] |
| Zr | 1.011 | 0.784 | 0.105 | 0.103 | 0.019 | 2.8721 | 14.2067 | 101.49 | 20 | 2.8 | 4.5 | 91.22 | 96.88 | 40 | 1.33 | 20 | 640 | 0.433 | 206 | 155 | 170.24 | 155.02 | [56] |
| Fe | 1 | 0.313 | 0.313 | 0.313 | 0.06 | 2.8671 | 14.2767 | 101.635 | 15 | 2.5 | 4.5 | 55.85 | 93.01 | 26 | 1.83 | 10 | 763 | 0.153 | 156 | 140 | 143.74 | 95.86 | [57] |
| Al | 1 | 0.313 | 0.313 | 0.313 | 0.06 | 2.8585 | 14.2559 | 100.879 | 15 | 2.5 | 4.5 | 26.98 | 93.01 | 13 | 1.61 | 8 | 578 | 0.432 | 118 | 125 | 158.43 | 130.23 | [57] |
| Mg | 1 | 0.313 | 0.313 | 0.313 | 0.06 | 2.8654 | 14.2597 | 101.394 | 15 | 2.5 | 4.5 | 24.31 | 93.01 | 12 | 1.31 | 8 | 738 | -0.4 | 145 | 150 | 148.74 | 136.17 | [57] |
| Zn | 1 | 0.313 | 0.313 | 0.313 | 0.06 | 2.8647 | 14.2431 | 101.226 | 15 | 2.5 | 4.5 | 65.39 | 93.01 | 30 | 1.65 | 15 | 906 | -0.6 | 142 | 135 | 115.93 | 42.11 | [57] |
| Ce | 1 | 0.333 | 0.311 | 0.333 | 0.067 | 2.886 | 14.2522 | 102.803 | 28 | 2.7 | 4.2 | 140.12 | 95.15 | 58 | 1.12 | 19 | 534 | 0.57 | 185 | 185 | 117 | 101 | [58] |
| Na | 1.17 | 0.13 | 0.13 | 0.54 | 0.03 | 2.8642 | 14.2721 | 101.397 | 100 | 2 | 4.8 | 22.99 | 85.08 | 11 | 0.93 | 7 | 496 | 0.547 | 190 | 180 | 259.2 | 237.72 | [59] |

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