|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample number** | **Types** | **Mg25** | **S34** | **V51** | **Cr53** | **Mn55** | **Fe57** | **Co59** | **Ni60** | **Cu65** | **Zn66** |
| HZQ-6-2-Py - 1 | Py-I | 10.02 | 451511.57 | 0.67 | 19.95 | 6.02 | 465500 | 15.42 | 253.57 | 1733.58 | 23.75 |
| HZQ-6-2-Py - 2 | Py-I | 3.93 | 418146.62 | 0.81 | 8.18 | 32.48 | 465500 | 10.6 | 261.18 | 4935.12 | 118.29 |
| HZQ-6-2-Py - 3 | Py-I | 2.08 | 553456.49 | 6.79 | 13.91 | 0.57 | 465500 | 6.56 | 70.09 | 56.39 | 5.67 |
| HZQ-6-2-Py - 4 | Py-I | 1.6 | 525955.52 | 0.24 | 18.23 | 0.42 | 465500 | 2.82 | 19.42 | 50.5 | 7.09 |
| HZQ-6-2-Py - 5 | Py-I | 0.75 | 373683.01 | 0.17 | 0.4 | 1.32 | 465500 | 0.91 | 11.82 | 68.42 | 9.61 |
| HZQ-DL-01-18-Py - 1 | Py-I | 33.91 | 483497.73 | 0.26 | 0.93 | 0.95 | 465500 | 0.56 | 10.89 | 38.68 | 4.63 |
| HZQ-DL-01-18-Py - 2 | Py-I | 225.37 | 535555.1 | 0.22 | 0.96 | 8.29 | 465500 | 0.57 | 10.67 | 28.9 | 5.03 |
| HZQ-DL-01-18-Py - 3 | Py-I | 1.36 | 543232.16 | 0.19 | 0.69 | 0.41 | 465500 | 1.86 | 10.48 | 7.64 | 5.11 |
| HZQ-DL-01-18-Py - 4 | Py-I | 389.01 | 672502.97 | 0.23 | 1.19 | 1.02 | 465500 | 0.13 | 3.17 | 132.71 | 7.94 |
| HZPL-03-1-Py - 1 | Py-I | 99.58 | 453731.63 | 0.23 | 0.75 | 0.23 | 465500 | 23.94 | 180.03 | 104.53 | 3.85 |
| HZPL-03-1-Py - 2 | Py-I | 165.1 | 492709.02 | 0.4 | 0.97 | 4.08 | 465500 | 31.81 | 486.69 | 22.15 | 9.58 |
| HZPL-03-1-Py - 3 | Py-I | 429.1 | 461589.02 | 0.26 | 1 | 3.18 | 465500 | 28.41 | 183.3 | 90.97 | 4.84 |
| HZPL-03-1-Py - 4 | Py-I | 182.41 | 471524.67 | 0.21 | 2.12 | 5.64 | 465500 | 8.97 | 74.78 | 166.64 | 5.35 |
| HZPL-03-1-Py - 5 | Py-I | 138.47 | 535432.79 | 0.21 | 1.86 | 0.4 | 465500 | 5.22 | 47.87 | 139.38 | 6.4 |
| HZQ-5-6-Py - 1 | Py-I | 1.48 | 501123.89 | 0.12 | 0.65 | 0.33 | 465500 | 10.35 | 131.74 | 2.71 | 5.91 |
| HZQ-5-6-Py - 2 | Py-I | 1.17 | 488382.9 | 0.14 | 0.47 | 0.28 | 465500 | 14.64 | 126.57 | 0.35 | 4.56 |
| HZQ-5-6-Py - 3 | Py-I | 1.17 | 493153.02 | 0.11 | 0.44 | 0.28 | 465500 | 0.43 | 1.55 | 0.28 | 3.78 |
| HZQ-5-6-Py - 4 | Py-I | 1.08 | 479101.94 | 0.15 | 0.5 | 0.27 | 465500 | 0.07 | 0.21 | 0.28 | 3.97 |
| HZQ-5-6-Py - 5 | Py-I | 1.1 | 468804.17 | 0.14 | 0.52 | 0.25 | 465500 | 0.04 | 0.11 | 0.34 | 4.13 |
| HZQ-5-6-Py - 6 | Py-I | 1.05 | 474946.08 | 0.1 | 0.49 | 0.25 | 465500 | 0.22 | 0.2 | 0.34 | 3.43 |
| HZQ-5-6-Py - 7 | Py-I | 1.04 | 471134.58 | 0.09 | 0.55 | 0.25 | 465500 | 0.02 | 0.17 | 0.32 | 3.34 |
| HZQ-5-6-Py - 8 | Py-I | 0.99 | 459766.31 | 0.14 | 0.5 | 0.25 | 465500 | 0.02 | 0.1 | 0.29 | 3.43 |
| HZQ-5-6-Py - 9 | Py-I | 0.99 | 476671.32 | 0.09 | 0.48 | 0.25 | 465500 | 0.4 | 2.26 | 0.9 | 3.42 |
| HZQ-5-6-Py - 10 | Py-I | 1.56 | 539245.36 | 0.12 | 0.77 | 0.36 | 465500 | 6.12 | 33.67 | 0.56 | 5.44 |
| HZQ-PL-01-32-Py - 1 | Py-I | 125641.2 | 631377.61 | 1.28 | 7.5 | 4184.11 | 465500 | 0.43 | 6.68 | 118.96 | 161.87 |
| HZQ-PL-01-32-Py - 2 | Py-I | 4999681 | 1764873.75 | 5.38 | 60.24 | 126868.5 | 465500 | 7.92 | 29.67 | 113.52 | 1166.12 |
| HZQ-PL-01-32-Py - 3 | Py-I | 168.94 | 578563.91 | 0.17 | 0.83 | 3.05 | 465500 | 0.2 | 4.14 | 51.32 | 11.46 |
| HZQ-PL-01-32-Py - 4 | Py-I | 61.53 | 526910.46 | 0.16 | 0.73 | 1.63 | 465500 | 0.14 | 2.52 | 55.05 | 20.02 |
| HZQ-PL-01-32-Py - 5 | Py-I | 2249.92 | 485969.48 | 0.11 | 1.08 | 79.41 | 465500 | 0.15 | 3.46 | 32.68 | 211.15 |
| HZQ-5-3-Py - 1 | Py-I | 1.33 | 504749.56 | 0.11 | 0.57 | 0.32 | 465500 | 1.76 | 1.07 | 0.61 | 4.12 |
| HZQ-5-3-Py - 2 | Py-I | 5.42 | 456826.35 | 0.09 | 0.41 | 0.39 | 465500 | 0.38 | 0.49 | 2.08 | 2.77 |
| HZQ-5-3-Py - 3 | Py-I | 556.13 | 507904.12 | 0.11 | 0.78 | 2.17 | 465500 | 1.42 | 2.84 | 14.86 | 4.85 |
| HZQ-5-3-Py - 4 | Py-I | 1.65 | 533879.38 | 0.08 | 0.7 | 0.35 | 465500 | 1.2 | 1.15 | 0.43 | 4.63 |
| HZQ-5-3-Py - 5 | Py-I | 1.78 | 518054.36 | 0.07 | 0.69 | 0.36 | 465500 | 1.97 | 29.35 | 1.55 | 4.5 |
| HZQ-5-3-Py - 6 | Py-I | 2182.76 | 448680.7 | 0.53 | 0.45 | 20.31 | 465500 | 0.09 | 0.57 | 0.72 | 2.85 |
| HZQ-5-3-Py - 7 | Py-I | 1.29 | 465097.95 | 0.1 | 0.63 | 0.29 | 465500 | 29.26 | 150.23 | 0.69 | 3.68 |
| HZQ-5-3-Py - 8 | Py-I | 1.07 | 469723.24 | 0.11 | 0.49 | 0.32 | 465500 | 1.26 | 2.48 | 4.79 | 3.23 |
| HZQ-5-3-Py - 9 | Py-I | 2052.15 | 442589.56 | 0.11 | 0.48 | 21.3 | 465500 | 13.85 | 42.46 | 3.2 | 3.42 |
| HZQ-5-3-Py - 10 | Py-I | 1.61 | 471580.63 | 0.08 | 0.54 | 0.34 | 465500 | 2 | 5.35 | 1.07 | 3.25 |
| HZQ-5-3-Py - 11 | Py-I | 1.67 | 453570.16 | 0.08 | 0.52 | 0.28 | 465500 | 0.4 | 6.85 | 0.57 | 2.98 |
| HZQ-5-3-Py - 12 | Py-I | 1.17 | 451054.41 | 0.08 | 0.56 | 0.3 | 465500 | 2.89 | 4.44 | 0.36 | 3.65 |
| HZQ-5-3-Py - 13 | Py-I | 1.07 | 457476.56 | 0.09 | 0.55 | 0.25 | 465500 | 0.99 | 6.28 | 0.37 | 3.74 |
| HZQ-5-3-Py - 14 | Py-I | 1.46 | 488593.89 | 0.1 | 0.59 | 0.34 | 465500 | 1.37 | 6.59 | 0.46 | 3.83 |
| HZQ-5-3-Py - 15 | Py-I | 1.4 | 475411.79 | 0.07 | 0.58 | 0.29 | 465500 | 0.15 | 0.26 | 1.64 | 3.51 |
| HZQ-5-3-Py - 16 | Py-I | 1.59 | 484818.73 | 0.1 | 0.77 | 0.32 | 465500 | 0.23 | 1.26 | 0.51 | 3.99 |
| HZQ-5-3-Py - 17 | Py-I | 1.98 | 439676.74 | 0.34 | 0.56 | 0.28 | 465500 | 0.25 | 2.44 | 1.23 | 3.08 |
| HZQ-5-3-Py - 18 | Py-I | 32.65 | 456434.12 | 0.19 | 0.52 | 0.92 | 465500 | 2.73 | 9.01 | 5.8 | 16.55 |
| HZQ-5-3-Py - 19 | Py-I | 1503.33 | 513481.75 | 1.27 | 0.59 | 12.42 | 465500 | 6.92 | 24.76 | 13.64 | 58.24 |
| HZQ-5-3-Py - 20 | Py-I | 9492.45 | 503978.79 | 6.68 | 0.67 | 86.46 | 465500 | 7.28 | 17.39 | 12.07 | 74.99 |
| HZQ-5-7-2-1 | Py-II | 464.36 | 406870.51 | 0.41 | 20.32 | 27.96 | 465500 | 2.3 | 10.54 | 347.08 | 13.29 |
| HZQ-5-7-2-1 | Py-II | 11223.47 | 636046.89 | 6.67 | 36.06 | 634.99 | 465500 | 3.14 | 12.84 | 311.49 | 897.05 |
| HZQ-3-1-1 | Py-II | 4.45 | 380768.96 | 0.06 | 4.07 | 0.42 | 465500 | 0.06 | 0.72 | 9.62 | 1.44 |
| HZQ-3-1-2 | Py-II | 32.47 | 2246175.39 | 0.39 | 27.1 | 97.87 | 465500 | 0.59 | 4.32 | 580.55 | 6120310.01 |
| HZQ-3-1-3 | Py-II | 3.92 | 341046.2 | 0.05 | 2.65 | 0.36 | 465500 | 0.06 | 0.56 | 5.78 | 51.19 |
| HZQ-3-1-4 | Py-II | 7.91 | 464815.8 | 0.08 | 3.85 | 0.6 | 465500 | 0.09 | 1.04 | 3.73 | 1.45 |
| HZQ-3-1-4 | Py-II | 10.46 | 350118.6 | 0.1 | 4.96 | 0.78 | 465500 | 0.11 | 1.36 | 6.3 | 23.71 |
| HZQ-13-11-2 | Py-II | 5.5 | 411755.88 | 0.05 | 2.56 | 0.33 | 465500 | 0.6 | 0.85 | 1.52 | 1.45 |
| HZQ-13-11-2 | Py-II | 14.58 | 409268.46 | 0.09 | 4.37 | 0.58 | 465500 | 0.29 | 4.2 | 11.17 | 1661.87 |
| HZQ-13-11-3 | Py-II | 5.98 | 397097.22 | 0.07 | 2.42 | 0.44 | 465500 | 0.09 | 0.7 | 0.47 | 0.97 |
| HZQ-13-11-3 | Py-II | 9.12 | 390261.74 | 0.09 | 3.77 | 0.69 | 465500 | 0.43 | 2.06 | 11.84 | 165.61 |
| HZQ-13-11-4 | Py-II | 7.85 | 515709.15 | 0.1 | 2.62 | 0.6 | 465500 | 6.33 | 18.88 | 94.81 | 28680.21 |
| HZQ-13-11-4 | Py-II | 16.62 | 365482.09 | 0.21 | 3.18 | 0.74 | 465500 | 3.58 | 16.49 | 52.3 | 26760.67 |
| HZQ-13-11-5 | Py-II | 10.07 | 431483.74 | 0.2 | 2.47 | 0.54 | 465500 | 1.01 | 4.17 | 47.86 | 44165.91 |
| HZQ-13-11-5 | Py-II | 15.74 | 439421.39 | 0.11 | 3.54 | 0.95 | 465500 | 1.36 | 8.57 | 101.71 | 65919.32 |
| HZQ-5-7-1 | Py-II | 112769.7 | 575318.73 | 0.58 | 8.09 | 1693.44 | 465500 | 0.46 | 8.1 | 126.69 | 395.07 |
| HZQ-5-7-3 | Py-II | 34162 | 1094291 | 3.08 | 11.37 | 895 | 464753 | 5.89 | 17.65 | 257.61 | 296233.6 |
| HZQ-5-7-4 | Py-II | 1262 | 1236532 | 17.2 | 1.46 | 133 | 464753 | 0.51 | 7.79 | 341.42 | 754992.4 |
| HZQ-5-7-5 | Py-II | 918 | 588052 | 0.109 | 0.00 | 7.34 | 464753 | 0.17 | 1.09 | 2.20 | 1.6 |
| HZQ-5-7-6 | Py-II | 0.0 | 1935831 | 0.0000 | 0.0000 | 734 | 464753 | 0.44 | 1.53 | 3897.94 | 3152311.7 |
| HZQ-5-7-7 | Py-II | 20.4 | 2341650 | 0.0000 | 3.57 | 541 | 464753 | 1.96 | 13.04 | 2029.06 | 3900490.4 |
| HZQ-5-7-8 | Py-II | 20.7 | 654090 | 0.29 | 1.11 | 2.7 | 464753 | 1.91 | 31.31 | 159.35 | 113658.5 |
| HZQ-5-7-9 | Py-II | 0 | 41940955 | 4.70 | 0.0000 | 1730 | 464753 | 0.00 | 0.00 | 9849.54 | 79741611.1 |
| HZQ-5-7-10 | Py-II | 263 | 54208850 | 22.8 | 0.0 | 2003 | 464753 | 0.00 | 0.00 | 12852.20 | 103127254.0 |
| HZQ-5-2-1 | Py-II | 0.00 | 9302047.2 | 0.00 | 0.00 | 513.75 | 464753 | 1.69 | 0.00 | 344.33 | 17581486.7 |
| HZQ-5-2-2 | Py-II | 0.00 | 10424403.3 | 2.63 | 4.19 | 484.51 | 464753 | 0.18 | 0.00 | 647.63 | 19355091.2 |
| HZQ-5-2-3 | Py-II | 0.00 | 12177980.0 | 0.00 | 0.00 | 448.10 | 464753 | 0.00 | 0.00 | 1430.88 | 22392243.0 |
| HZQ-5-2-4 | Py-II | 0.00 | 12363716.0 | 2.03 | 0.00 | 333.50 | 464753 | 0.00 | 0.00 | 1270.06 | 21927142.1 |
| HZQ-5-2-5 | Py-II | 0.00 | 13418631.4 | 5.29 | 12.79 | 284.85 | 464753 | 3.60 | 0.10 | 2797.27 | 23655469.2 |
| HZQ-5-2-6 | Py-II | 0.00 | 12878928.6 | 0.00 | 28.74 | 475.34 | 464753 | 1.44 | 3.20 | 1240.89 | 22086827.3 |
| HZQ-5-2-7 | Py-II | 0.00 | 11250778.2 | 0.57 | 14.72 | 637.90 | 464753 | 2.13 | 0.00 | 3421.46 | 19675485.8 |
| HZQ-5-2-8 | Py-II | 43.83 | 10479551.4 | 0.00 | 31.94 | 592.90 | 464753 | 2.64 | 0.00 | 3795.49 | 18163446.9 |
| HZQ-5-2-9 | Py-II | 61.71 | 9546073.1 | 0.00 | 0.00 | 554.59 | 464753 | 0.00 | 6.76 | 2641.65 | 16956288.4 |
| HZQ-5-2-10 | Py-II | 0.00 | 7280615.2 | 1.60 | 16.20 | 628.27 | 464753 | 0.16 | 5.14 | 3590.12 | 12691273.9 |
| HZQ-13-10-1 | Py-II | 37.10 | 9514022.9 | 0.0 | 43.8 | 4888.0 | 464753.0 | 0.0 | 2.7 | 5153.3 | 15889823.5 |
| HZQ-13-10-2 | Py-II | 38.64 | 5677435.0 | 0.0 | 0.0 | 2268.7 | 464753.0 | 0.1 | 0.0 | 1100.0 | 9450981.2 |
| HZQ-13-10-3 | Py-II | 269.71 | 132882557.8 | 14.0 | 0.0 | 10991.0 | 464753.0 | 16.1 | 23.6 | 130178.8 | 236078343.3 |
| HZQ-13-10-4 | Py-II | 0.00 | 129141448.8 | 41.8 | 535.0 | 11609.9 | 464753.0 | 0.0 | 1.4 | 157502.3 | 232967161.4 |
| HZQ-13-10-5 | Py-II | 0.00 | 123086049.3 | 3.8 | 0.0 | 2979.6 | 464753.0 | 22.9 | 0.0 | 3593.2 | 220740065.0 |
| HZQ-13-10-6 | Py-II | 327.85 | 267086298.5 | 77.8 | 297.0 | 45506.3 | 464753.0 | 0.0 | 40.6 | 181722.6 | 488091119.6 |
| HZQ-13-10-7 | Py-II | 0.00 | 12736139.9 | 0.0 | 13.5 | 420.9 | 464753.0 | 0.0 | 0.0 | 756.4 | 23809537.2 |
| HZQ-13-10-8 | Py-II | 57.18 | 5748603.5 | 0.0 | 6.5 | 386.5 | 464753.0 | 0.0 | 8.6 | 230.4 | 10221583.7 |
| HZQ-13-10-9 | Py-II | 298.22 | 22857298.4 | 12.8 | 17.5 | 852.3 | 464753.0 | 0.7 | 0.0 | 2243.0 | 41493584.0 |
| HZQ-13-10-10 | Py-II | 61.61 | 9902317.1 | 0.0 | 8.1 | 351.8 | 464753.0 | 0.9 | 0.0 | 568.4 | 17825899.5 |
| HZQ-13-16-1 | Py-II | 11722.09 | 14134111.3 | 650.4 | 328.9 | 685.6 | 464753.0 | 16.0 | 194.1 | 2695.6 | 21648548.3 |
| HZQ-13-16-2 | Py-II | 0.00 | 708896.9 | 0.0 | 0.0 | 0.0 | 464753.0 | 5.8 | 18.6 | 70.7 | 1080.1 |
| HZQ-13-16-3 | Py-II | 63.15 | 10811562.8 | 3.9 | 0.0 | 4707.8 | 464753.0 | 1.4 | 5.0 | 4601.8 | 19547783.2 |
| HZQ-13-16-4 | Py-II | 15.43 | 5181745.5 | 3.0 | 0.0 | 2102.6 | 464753.0 | 0.2 | 0.0 | 9192.1 | 9006350.9 |
| HZQ-13-16-5 | Py-II | 876.63 | 142965457.9 | 0.0 | 0.0 | 8964.0 | 464753.0 | 4.3 | 84.3 | 39668.2 | 249068185.9 |
| HZQ-13-16-6 | Py-II | 0.00 | 28831063.7 | 5.3 | 2.6 | 703.6 | 464753.0 | 2.2 | 52.9 | 3152.9 | 51544563.6 |
| HZQ-13-16-7 | Py-II | 104.68 | 7461755.6 | 0.0 | 0.0 | 412.1 | 464753.0 | 0.0 | 0.0 | 116.2 | 13358935.1 |
| HZQ-13-16-8 | Py-II | 31.41 | 10262934.0 | 0.0 | 0.0 | 5844.6 | 464753.0 | 0.5 | 0.0 | 6897.3 | 18649283.1 |
| HZQ-13-16-9 | Py-II | 7.79 | 11645400.2 | 0.0 | 0.0 | 486.0 | 464753.0 | 2.8 | 12.8 | 563.7 | 20417412.1 |
| HZQ-13-16-10 | Py-II | 154.32 | 13204136.7 | 0.0 | 66.3 | 7268.9 | 464753.0 | 0.0 | 19.2 | 14713.4 | 24369382.8 |
| HZQ-11i-1 | Py-III | 3.26 | 507107.91 | 0.34 | 10.35 | 1.25 | 465500 | 0.05 | 0.45 | 0.92 | 1.06 |
| HZQ-11i-1 | Py-III | 10.08 | 529948.65 | 1.06 | 32.07 | 3.89 | 465500 | 0.16 | 1.41 | 1.83 | 1.18 |
| HZQ-11i-2 | Py-III | 12.43 | 1085495.25 | 1.04 | 34.25 | 2.92 | 465500 | 0.13 | 1.62 | 8.83 | 1.02 |
| HZQ-11i-2 | Py-III | 20.09 | 556325.75 | 0.73 | 24.29 | 2.07 | 465500 | 0.09 | 2.02 | 4.05 | 0.72 |
| HZQ-11i-3 | Py-III | 999.36 | 526750.46 | 0.51 | 15.24 | 28.18 | 465500 | 0.14 | 0.67 | 0.93 | 2.14 |
| HZQ-11i-3 | Py-III | 258.09 | 674130.08 | 18.39 | 69.15 | 2.8 | 465500 | 0.49 | 1.55 | 4.1 | 1.78 |
| HZQ-11i-4 | Py-III | 11432 | 602776.43 | 0.52 | 13.53 | 222.66 | 465500 | 0.09 | 3.82 | 6.21 | 3.95 |
| HZQ-11i-4 | Py-III | 2556.44 | 687279.56 | 1.24 | 32.61 | 439.72 | 465500 | 2.52 | 12.79 | 12.51 | 4926.76 |
| HZQ-11i-5 | Py-III | 997.56 | 696568.51 | 2.01 | 58.6 | 3657.69 | 465500 | 1.03 | 7.99 | 4.41 | 5.4 |
| HZQ-11i-5 | Py-III | 272.59 | 772844.58 | 2.42 | 71.08 | 1350.13 | 465500 | 0.96 | 3.71 | 2.48 | 7.27 |
| HZQ-11i-6 | Py-III | 914.15 | 529247.81 | 0.35 | 10.31 | 3.83 | 465500 | 0.2 | 1.18 | 2.44 | 0.69 |
| HZQ-11i-6 | Py-III | 2843.6 | 746832.92 | 0.88 | 25.8 | 430.45 | 465500 | 0.25 | 3.24 | 4.29 | 1.16 |
| HZQ-11i-7 | Py-III | 4.27 | 468016.37 | 0.35 | 12.32 | 1.41 | 465500 | 0.05 | 0.63 | 0.81 | 0.53 |
| HZQ-11i-7 | Py-III | 8.32 | 523647.51 | 0.35 | 12.33 | 1.41 | 465500 | 0.12 | 1.19 | 7.9 | 4.11 |
| HZQ-11i-8 | Py-III | 94.87 | 7980484.46 | 8.36 | 288.27 | 660.03 | 465500 | 1.15 | 15.88 | 2232.78 | 17048441.11 |
| HZQ-11i-8 | Py-III | 6.85 | 664385.3 | 0.61 | 20.9 | 6.11 | 465500 | 0.28 | 2.03 | 46.24 | 213643.73 |
| HZQ-11i-9 | Py-III | 84.7 | 7225973.9 | 8.7 | 304.53 | 573.74 | 465500 | 1.76 | 15.99 | 4540.22 | 15374519.46 |
| HZQ-11i-9 | Py-III | 31.22 | 1865320.68 | 3.17 | 96.16 | 36.08 | 465500 | 0.68 | 7.33 | 472.82 | 1199953.53 |
| HZQ-7-8-6 | Py-III | 5.64 | 588127.88 | 0.45 | 14.32 | 1.49 | 465500 | 0.07 | 0.97 | 2.27 | 1.15 |
| HZQ-7-8-6 | Py-III | 7.14 | 529622.19 | 0.59 | 18.09 | 1.88 | 465500 | 0.08 | 1.23 | 6.85 | 9.56 |
| HZQ-7-8-7 | Py-III | 3.98 | 528592.35 | 0.46 | 8.72 | 1.11 | 465500 | 0.04 | 0.56 | 1.1 | 0.77 |
| HZQ-7-8-8 | Py-III | 5.17 | 607546.16 | 0.45 | 14.39 | 1.76 | 465500 | 0.07 | 0.76 | 2.17 | 1.35 |
| HZQ-7-8-8 | Py-III | 5.97 | 524297.97 | 0.51 | 16.48 | 2.02 | 465500 | 0.1 | 0.87 | 2.18 | 1.09 |
| HZQ-7-8-9 | Py-III | 3.35 | 519029.49 | 0.33 | 10.91 | 1.19 | 465500 | 0.05 | 0.57 | 0.75 | 0.6 |
| HZQ-7-8-10 | Py-III | 4.8 | 591275.98 | 0.45 | 14.59 | 1.91 | 465500 | 0.21 | 0.94 | 1.07 | 1.57 |
| HZQ-7-8-10 | Py-III | 4.62 | 475173.57 | 0.39 | 13.01 | 1.85 | 465500 | 0.07 | 1.05 | 1.3 | 0.71 |
| HZQ-11d-1 | Py-III | 3.3 | 476928.32 | 0.1 | 9.46 | 0.4 | 465500 | 0.05 | 0.58 | 0.34 | 0.37 |
| HZQ-11d-1 | Py-III | 9.75 | 550416.2 | 0.29 | 28.2 | 1.16 | 465500 | 0.15 | 1.73 | 3 | 1.1 |
| HZQ-11d-2 | Py-III | 3.76 | 450364.16 | 0.11 | 12.83 | 0.47 | 465500 | 0.05 | 0.64 | 0.3 | 0.44 |
| HZQ-11d-3 | Py-III | 4.4 | 528802.95 | 0.11 | 18.73 | 0.52 | 465500 | 0.06 | 0.65 | 0.43 | 0.87 |
| HZQ-11d-3 | Py-III | 6.66 | 499218.73 | 0.17 | 28.94 | 0.8 | 465500 | 0.09 | 1 | 4.3 | 0.76 |
| HZQ-11d-4 | Py-III | 3.96 | 504911.12 | 0.08 | 18.53 | 0.37 | 465500 | 0.06 | 0.59 | 3.83 | 0.85 |
| HZQ-11k-1 | Py-III | 1860 | 668470 | 0.00 | 0.33 | 183 | 464753 | 0.26 | 8.52 | 17.68 | 17326.94 |
| HZQ-11k-2 | Py-III | 5258 | 570982 | 0.31 | 1.14 | 76.4 | 464753 | 10.09 | 40.68 | 34.50 | 0.53 |
| HZQ-11k-3 | Py-III | 2.6 | 525277 | 0.56 | 1.44 | 0.00 | 464753 | 0.54 | 1.86 | 4.35 | 0.64 |
| HZQ-11k-4 | Py-III | 1118 | 528512 | 0.05 | 0.00 | 23.80 | 464753 | 0.08 | 0.00 | 1.88 | 0.00 |
| HZQ-11k-5 | Py-III | 9.1025 | 530271 | 0.0000 | 0.00 | 0.000 | 464753 | 0.00 | 0.16 | 1.08 | 0.20 |
| HZQ-11k-6 | Py-III | 19742 | 1231902 | 1.60 | 0.00 | 2069 | 464753 | 0.68 | 5.89 | 9.29 | 11.10 |
| HZQ-11k-7 | Py-III | 1.69 | 832916 | 0.0000 | 0.00 | 0.0492 | 464753 | 0.00 | 3.08 | 3.93 | 0.92 |
| HZQ-11k-8 | Py-III | 24.4 | 580855 | 0.0000 | 0.83 | 0.00 | 464753 | 0.03 | 1.09 | 1.16 | 0.83 |
| HZQ-11k-9 | Py-III | 44.6 | 571030 | 0.0000 | 0.31 | 1.16 | 464753 | 0.09 | 0.81 | 3.57 | 0.00 |
| HZQ-11k-10 | Py-III | 2.48 | 565023 | 0.0000 | 0.0000 | 0.00 | 464753 | 0.00 | 0.00 | 0.91 | 0.21 |
| HZQ-5b-7-1 | Py-III | 8.4 | 570906.9 | 0.0 | 0.0 | 0.1 | 464753.0 | 0.5 | 7.8 | 18.7 | 7.7 |
| HZQ-5b-7-2 | Py-III | 0.0 | 4860008.6 | 0.0 | 0.0 | 157.6 | 464753.0 | 0.9 | 5.8 | 108327.4 | 6559504.3 |
| HZQ-5b-7-3 | Py-III | 18.2 | 1057810.1 | 5.2 | 3.9 | 0.0 | 464753.0 | 18.5 | 64.0 | 184.5 | 113558.4 |
| HZQ-5b-7-4 | Py-III | 264.1 | 683233.1 | 5.8 | 0.0 | 0.0 | 464753.0 | 11.5 | 16.6 | 46.3 | 39.5 |
| HZQ-5b-7-5 | Py-III | 142497.0 | 5272542.0 | 3348.6 | 1283.4 | 21.9 | 464753.0 | 19.9 | 51.3 | 2120.8 | 4077648.3 |
| HZQ-5b-7-6 | Py-III | 0.0 | 6958918.7 | 0.0 | 0.0 | 1048.8 | 464753.0 | 0.0 | 0.6 | 97635.5 | 11118552.7 |
| HZQ-5b-7-7 | Py-III | 279.5 | 39532983.9 | 16.2 | 121.0 | 1067.1 | 464753.0 | 3.6 | 0.0 | 3397.4 | 63687315.2 |
| HZQ-5b-7-8 | Py-III | 32.5 | 6775112.9 | 0.2 | 14.3 | 958.6 | 464753.0 | 0.4 | 0.0 | 6567.2 | 10665418.2 |
| HZQ-5b-7-9 | Py-III | 0.0 | 3551648.8 | 0.2 | 0.0 | 1831.6 | 464753.0 | 0.0 | 2.5 | 188.6 | 5526992.1 |
| HZQ-5b-7-10 | Py-III | 0.0 | 32208844.4 | 11.6 | 96.8 | 1149.8 | 464753.0 | 5.8 | 35.1 | 15773.6 | 35181179.9 |
| HZQ-11a-1 | Py-III | 0.0 | 621767.2 | 0.0 | 0.0 | 0.0 | 464753.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| HZQ-11a-2 | Py-III | 0.9 | 604930.3 | 0.1 | 0.0 | 0.0 | 464753.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| HZQ-11a-3 | Py-III | 1.4 | 577812.4 | 0.0 | 0.0 | 0.0 | 464753.0 | 0.0 | 0.4 | 0.3 | 0.0 |
| HZQ-11a-4 | Py-III | 3.3 | 576955.5 | 0.0 | 0.0 | 0.0 | 464753.0 | 0.0 | 0.0 | 1.3 | 0.7 |
| HZQ-11a-5 | Py-III | 0.0 | 570061.2 | 0.0 | 1.5 | 0.6 | 464753.0 | 0.0 | 0.5 | 0.6 | 0.0 |
| HZQ-11a-6 | Py-III | 0.0 | 556326.2 | 0.0 | 0.0 | 0.8 | 464753.0 | 0.2 | 1.4 | 2.8 | 0.9 |
| HZQ-11a-7 | Py-III | 46.4 | 4553000.7 | 0.0 | 0.0 | 537.6 | 464753.0 | 0.8 | 4.9 | 149.9 | 7194676.6 |
| HZQ-11a-8 | Py-III | 42.8 | 4540199.6 | 1.7 | 5.5 | 524.8 | 464753.0 | 0.7 | 8.9 | 2807.3 | 7117879.8 |
| HZQ-11a-9 | Py-III | 9.2 | 4711691.9 | 1.4 | 34.0 | 542.6 | 464753.0 | 0.9 | 0.0 | 102.2 | 7333095.7 |
| HZQ-11a-10 | Py-III | 0.0 | 4523917.6 | 0.0 | 0.0 | 532.8 | 464753.0 | 1.3 | 2.6 | 3246.8 | 7143777.8 |
| HZQ-11c-1 | Py-III | 0.0 | 531561.3 | 0.0 | 2.5 | 0.0 | 464753.0 | 0.5 | 0.7 | 0.4 | 0.4 |
| HZQ-11c-2 | Py-III | 0.1 | 510518.6 | 0.0 | 0.5 | 0.0 | 464753.0 | 0.2 | 1.3 | 1.7 | 0.0 |
| HZQ-11c-3 | Py-III | 0.0 | 583947.3 | 0.0 | 3.8 | 0.5 | 464753.0 | 0.6 | 5.5 | 2.1 | 0.5 |
| HZQ-11c-4 | Py-III | 3.1 | 575376.4 | 0.0 | 0.7 | 0.0 | 464753.0 | 0.3 | 2.2 | 0.7 | 0.3 |
| HZQ-11c-5 | Py-III | 0.0 | 483391.0 | 0.1 | 0.3 | 0.2 | 464753.0 | 0.1 | 2.5 | 1.5 | 1.1 |
| HZQ-11c-6 | Py-III | 11.6 | 5883437.0 | 4.9 | 10.5 | 856.2 | 464753.0 | 0.0 | 1.9 | 6763.5 | 9524298.3 |
| HZQ-11c-7 | Py-III | 33.0 | 8207829.9 | 0.0 | 32.3 | 792.1 | 464753.0 | 0.0 | 2.0 | 5471.8 | 13151766.1 |
| HZQ-11c-8 | Py-III | 12.8 | 8345933.3 | 0.0 | 0.0 | 996.2 | 464753.0 | 0.0 | 5.6 | 6326.9 | 13843771.4 |
| HZQ-11c-9 | Py-III | 12.4 | 5321614.7 | 1.5 | 0.0 | 1045.5 | 464753.0 | 0.0 | 0.0 | 6514.9 | 8464515.3 |
| HZQ-11c-10 | Py-III | 46.3 | 2534212.6 | 0.0 | 6.1 | 995.2 | 464753.0 | 0.3 | 0.0 | 138.4 | 3958654.3 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample number** | **Types** | **As75** | **Se77** | **Mo95** | **Ag107** | **Cd111** | **In115** | **Sn118** | **Sb121** | **Au197** | **Hg202** | **Tl205** | **Pb208** | **Bi209** |
| HZQ-6-2-Py - 1 | Py-I | 260.87 | 30.15 | 0.89 | 39.85 | 0.89 | 0.04 | 10.13 | 26.28 | 0.06 | 39.66 | 16.88 | 215.02 | 2.39 |
| HZQ-6-2-Py - 2 | Py-I | 308.67 | 8.07 | 6.83 | 24.17 | 0.96 | 0.16 | 40.68 | 39.94 | 0.07 | 29.78 | 17.09 | 417.14 | 1.57 |
| HZQ-6-2-Py - 3 | Py-I | 2641.28 | 3.56 | 0.05 | 0.6 | 1.38 | 0.01 | 0.4 | 6.19 | 0.03 | 0.76 | 0.44 | 19.33 | 0.14 |
| HZQ-6-2-Py - 4 | Py-I | 948.24 | 3.37 | 0.06 | 6.33 | 1.38 | 0.01 | 0.5 | 7.19 | 0.04 | 2.84 | 0.68 | 90.7 | 0.46 |
| HZQ-6-2-Py - 5 | Py-I | 118.74 | 1.29 | 1.54 | 2.2 | 0.7 | 0.01 | 0.06 | 8.93 | 0.02 | 0.2 | 2.85 | 1.8 | 0.02 |
| HZQ-DL-01-18-Py - 1 | Py-I | 6268.54 | 2.16 | 0.04 | 6.11 | 1.18 | 0.01 | 0.1 | 174.33 | 0.03 | 0.29 | 0.09 | 1852.13 | 0.01 |
| HZQ-DL-01-18-Py - 2 | Py-I | 5762.45 | 2.32 | 0.03 | 7.28 | 1.14 | 0.01 | 0.1 | 108.56 | 0.03 | 0.31 | 0.1 | 8122.23 | 0.02 |
| HZQ-DL-01-18-Py - 3 | Py-I | 3964.56 | 2.29 | 0.03 | 0.93 | 1.15 | 0.01 | 0.1 | 81.93 | 0.03 | 0.32 | 0.04 | 599.54 | 0.02 |
| HZQ-DL-01-18-Py - 4 | Py-I | 16895.15 | 3.19 | 0.05 | 2.37 | 1.93 | 0.01 | 0.21 | 164.93 | 0.05 | 0.47 | 0.06 | 2116.94 | 0.03 |
| HZPL-03-1-Py - 1 | Py-I | 236.38 | 5.78 | 0.08 | 0.62 | 0.9 | 0.01 | 1.54 | 9.73 | 0.02 | 1.55 | 0.71 | 68.68 | 0.87 |
| HZPL-03-1-Py - 2 | Py-I | 1114.65 | 45.49 | 4.03 | 7.23 | 0.92 | 0.05 | 14.88 | 6.89 | 0.08 | 2.3 | 1.77 | 125.47 | 0.4 |
| HZPL-03-1-Py - 3 | Py-I | 1130.15 | 8.63 | 1.77 | 1.3 | 0.96 | 0.02 | 2.84 | 29.68 | 0.03 | 5.01 | 2.65 | 222.37 | 0.67 |
| HZPL-03-1-Py - 4 | Py-I | 700.17 | 23.04 | 0.12 | 3.38 | 1.29 | 0.03 | 0.9 | 16.87 | 0.02 | 0.72 | 0.7 | 133.37 | 1.22 |
| HZPL-03-1-Py - 5 | Py-I | 138.25 | 5.14 | 0.06 | 0.7 | 1.36 | 0.01 | 1.12 | 9.28 | 0.06 | 0.88 | 0.8 | 73.77 | 0.18 |
| HZQ-5-6-Py - 1 | Py-I | 432.08 | 4.78 | 0.03 | 0.03 | 1.15 | 0.01 | 0.11 | 0.04 | 0.07 | 0.44 | 0.02 | 0.36 | 0.01 |
| HZQ-5-6-Py - 2 | Py-I | 151.21 | 9.31 | 0.03 | 0.03 | 0.84 | 0.01 | 0.08 | 0.03 | 0.02 | 0.29 | 0.02 | 0.12 | 0.01 |
| HZQ-5-6-Py - 3 | Py-I | 161.06 | 1.77 | 0.03 | 0.03 | 0.81 | 0.01 | 0.08 | 0.04 | 0.02 | 0.29 | 0.02 | 0.03 | 0.01 |
| HZQ-5-6-Py - 4 | Py-I | 121.85 | 1.6 | 0.03 | 0.03 | 0.75 | 0.01 | 0.08 | 0.04 | 0.02 | 0.31 | 0.02 | 0.03 | 0.01 |
| HZQ-5-6-Py - 5 | Py-I | 102.27 | 1.67 | 0.02 | 0.03 | 0.66 | 0.01 | 0.07 | 0.04 | 0.02 | 0.3 | 0.02 | 0.03 | 0.01 |
| HZQ-5-6-Py - 6 | Py-I | 441.09 | 1.64 | 0.02 | 0.03 | 0.66 | 0.01 | 0.08 | 0.04 | 0.02 | 0.28 | 0.02 | 0.06 | 0.01 |
| HZQ-5-6-Py - 7 | Py-I | 118.18 | 1.74 | 0.03 | 0.03 | 0.72 | 0.01 | 0.08 | 0.03 | 0.03 | 0.29 | 0.02 | 0.04 | 0.01 |
| HZQ-5-6-Py - 8 | Py-I | 167.17 | 1.82 | 0.03 | 0.03 | 0.78 | 0.01 | 0.08 | 0.04 | 0.03 | 0.31 | 0.02 | 0.03 | 0.01 |
| HZQ-5-6-Py - 9 | Py-I | 154.96 | 1.71 | 0.02 | 0.24 | 0.8 | 0.01 | 0.07 | 0.46 | 0.03 | 0.31 | 0.02 | 2.79 | 0.06 |
| HZQ-5-6-Py - 10 | Py-I | 524.35 | 9.62 | 0.04 | 0.05 | 1.15 | 0.01 | 0.1 | 0.25 | 0.05 | 0.41 | 0.02 | 0.83 | 0.01 |
| HZQ-PL-01-32-Py - 1 | Py-I | 17280.21 | 6.02 | 0.73 | 5.32 | 2.88 | 0.02 | 0.31 | 52.38 | 0.13 | 1.03 | 0.47 | 1643.95 | 0.04 |
| HZQ-PL-01-32-Py - 2 | Py-I | 21795.51 | 206.52 | 5.02 | 3.56 | 87.54 | 0.55 | 9.19 | 174.8 | 3.51 | 37.94 | 2.74 | 2643.41 | 1.55 |
| HZQ-PL-01-32-Py - 3 | Py-I | 8125.19 | 2.55 | 0.04 | 9.99 | 1.15 | 0.01 | 0.11 | 316.73 | 0.04 | 0.49 | 0.29 | 6990.22 | 0.02 |
| HZQ-PL-01-32-Py - 4 | Py-I | 8119.48 | 2.21 | 0.04 | 7.97 | 0.99 | 0.01 | 0.11 | 539.81 | 0.03 | 0.4 | 0.26 | 3930.4 | 0.01 |
| HZQ-PL-01-32-Py - 5 | Py-I | 5415.9 | 1.71 | 0.04 | 3.23 | 0.67 | 0 | 0.09 | 92.97 | 0.02 | 0.39 | 0.08 | 1687.81 | 0.01 |
| HZQ-5-3-Py - 1 | Py-I | 513.03 | 1.67 | 0.04 | 0.04 | 0.76 | 0.01 | 0.1 | 0.03 | 0.03 | 0.31 | 0.02 | 0.04 | 0.01 |
| HZQ-5-3-Py - 2 | Py-I | 292.68 | 1.29 | 0.04 | 0.16 | 0.68 | 0 | 0.08 | 0.7 | 0.02 | 0.26 | 0.02 | 7.62 | 0.01 |
| HZQ-5-3-Py - 3 | Py-I | 931.52 | 6.01 | 0.07 | 2.07 | 1.17 | 0.01 | 0.14 | 7.34 | 0.04 | 1.35 | 0.04 | 89.28 | 0.05 |
| HZQ-5-3-Py - 4 | Py-I | 203.81 | 3.04 | 0.05 | 0.03 | 0.97 | 0 | 0.11 | 0.05 | 0.04 | 0.46 | 0.02 | 0.05 | 0.02 |
| HZQ-5-3-Py - 5 | Py-I | 27.32 | 2.61 | 0.05 | 0.15 | 1.07 | 0.01 | 0.1 | 1.18 | 0.05 | 0.47 | 0.02 | 4.28 | 0.02 |
| HZQ-5-3-Py - 6 | Py-I | 58.7 | 1.51 | 0.02 | 0.06 | 0.68 | 0 | 0.07 | 0.19 | 0.03 | 0.26 | 0.02 | 2.06 | 0.01 |
| HZQ-5-3-Py - 7 | Py-I | 567.45 | 15.47 | 0.03 | 0.03 | 0.75 | 0 | 0.1 | 0.12 | 0.03 | 0.34 | 0.02 | 0.23 | 0.02 |
| HZQ-5-3-Py - 8 | Py-I | 346.63 | 1.58 | 0.02 | 0.72 | 0.67 | 0 | 0.09 | 2.8 | 0.02 | 0.47 | 0.02 | 22.14 | 0.01 |
| HZQ-5-3-Py - 9 | Py-I | 569.69 | 10.09 | 0.02 | 0.19 | 0.66 | 0 | 0.08 | 2.27 | 0.04 | 0.27 | 0.02 | 14.13 | 0.07 |
| HZQ-5-3-Py - 10 | Py-I | 197.07 | 1.54 | 0.02 | 0.06 | 0.6 | 0.01 | 0.07 | 0.16 | 0.03 | 0.3 | 0.02 | 15.85 | 0.01 |
| HZQ-5-3-Py - 11 | Py-I | 173.61 | 1.63 | 0.02 | 0.05 | 0.74 | 0 | 0.07 | 0.03 | 0.03 | 0.32 | 0.02 | 1.42 | 0.01 |
| HZQ-5-3-Py - 12 | Py-I | 133.3 | 1.59 | 0.03 | 0.03 | 0.82 | 0.01 | 0.08 | 0.04 | 0.03 | 0.3 | 0.02 | 0.15 | 0.01 |
| HZQ-5-3-Py - 13 | Py-I | 173.33 | 1.54 | 0.03 | 0.03 | 0.69 | 0 | 0.09 | 0.03 | 0.03 | 0.28 | 0.02 | 0.05 | 0.01 |
| HZQ-5-3-Py - 14 | Py-I | 146.39 | 2.27 | 0.03 | 0.04 | 0.79 | 0.01 | 0.1 | 0.05 | 0.04 | 0.57 | 0.03 | 0.42 | 0.02 |
| HZQ-5-3-Py - 15 | Py-I | 367.82 | 2.09 | 0.03 | 0.03 | 0.73 | 0 | 0.08 | 0.04 | 0.04 | 0.38 | 0.03 | 0.04 | 0.01 |
| HZQ-5-3-Py - 16 | Py-I | 156.86 | 2.27 | 0.04 | 0.05 | 0.91 | 0.01 | 0.11 | 0.04 | 0.04 | 0.47 | 0.03 | 0.53 | 0.01 |
| HZQ-5-3-Py - 17 | Py-I | 148.38 | 1.66 | 0.04 | 0.05 | 0.72 | 0 | 0.12 | 1.7 | 0.02 | 0.35 | 0.02 | 7.82 | 0.01 |
| HZQ-5-3-Py - 18 | Py-I | 137.74 | 2.42 | 0.03 | 0.83 | 0.64 | 0 | 0.08 | 0.88 | 0.02 | 0.32 | 0.02 | 134.85 | 0.04 |
| HZQ-5-3-Py - 19 | Py-I | 502.71 | 4.93 | 0.03 | 2.7 | 0.68 | 0.01 | 0.08 | 3.6 | 0.03 | 0.41 | 0.03 | 2388.22 | 0.11 |
| HZQ-5-3-Py - 20 | Py-I | 208.29 | 3.58 | 0.08 | 9.79 | 1.02 | 0.01 | 0.11 | 4.31 | 0.03 | 4.08 | 0.03 | 1102.33 | 0.17 |
| HZQ-5-7-2-1 | Py-II | 5359.56 | 2.1 | 0.14 | 10.065 | 0.17 | 0.01 | 0.28 | 15.73 | 0.1 | 1.235 | 0.16 | 898.35 | 37.95 |
| HZQ-5-7-2-1 | Py-II | 7823.36 | 6.78 | 3.39 | 156.71 | 3.34 | 0.02 | 0.85 | 185.16 | 0.44 | 6.445 | 0.82 | 897183.4 | 471.46 |
| HZQ-3-1-1 | Py-II | 3267.71 | 3 | 0.04 | 1.19 | 0.07 | 0 | 0.07 | 75.86 | 0.06 | 1.615 | 0.07 | 264.42 | 12.96 |
| HZQ-3-1-2 | Py-II | 29.69 | 23.36 | 0.2 | 206.115 | 3700.74 | 0.05 | 1.59 | 35.08 | 0.45 | 1821.79 | 0.74 | 69.77 | 73.62 |
| HZQ-3-1-3 | Py-II | 2432.49 | 2.67 | 0.02 | 2.21 | 0.05 | 0 | 0.06 | 103.33 | 0.06 | 1.735 | 0.17 | 333.25 | 8.89 |
| HZQ-3-1-4 | Py-II | 3506.42 | 4.63 | 0.04 | 0.33 | 0.08 | 0 | 0.08 | 42.66 | 0.09 | 4.085 | 0.05 | 153.77 | 17.57 |
| HZQ-3-1-4 | Py-II | 2436.35 | 6.03 | 0.05 | 3.04 | 0.13 | 0.01 | 0.11 | 37.89 | 0.11 | 5.385 | 0.11 | 111.09 | 17.01 |
| HZQ-13-11-2 | Py-II | 521.49 | 4.32 | 0.03 | 0.41 | 0.04 | 0 | 0.05 | 0.58 | 0.06 | 3.4 | 0.03 | 2.87 | 8.25 |
| HZQ-13-11-2 | Py-II | 1140.39 | 5.58 | 0.05 | 64.985 | 1.04 | 0.01 | 0.09 | 28.15 | 0.13 | 6.555 | 0.15 | 38757.63 | 14.23 |
| HZQ-13-11-3 | Py-II | 540.39 | 3.66 | 0.05 | 0.315 | 0.06 | 0 | 0.06 | 2.77 | 0.08 | 2.705 | 0.03 | 23.49 | 10.79 |
| HZQ-13-11-3 | Py-II | 1206.35 | 5.65 | 0.07 | 23.365 | 0.08 | 0.01 | 0.09 | 8.77 | 0.13 | 4.155 | 0.05 | 10742.22 | 16.27 |
| HZQ-13-11-4 | Py-II | 11075.49 | 5.85 | 0.06 | 51.29 | 13.11 | 0.03 | 0.06 | 7.04 | 0.11 | 15.235 | 0.05 | 1734.42 | 11.33 |
| HZQ-13-11-4 | Py-II | 6306.24 | 6.2 | 0.27 | 27.48 | 11.55 | 0.01 | 0.07 | 8.52 | 0.13 | 14.97 | 0.1 | 570.63 | 13.65 |
| HZQ-13-11-5 | Py-II | 6167.72 | 5.4 | 0.05 | 40.365 | 15.22 | 0.02 | 0.06 | 6.7 | 0.11 | 10.31 | 0.09 | 3760.8 | 11.8 |
| HZQ-13-11-5 | Py-II | 3575.25 | 7.88 | 0.08 | 59.79 | 37.8 | 0.02 | 0.08 | 9.86 | 0.16 | 48.875 | 0.07 | 780.72 | 16.95 |
| HZQ-5-7-1 | Py-II | 11513 | 13.71 | 0.15 | 37.405 | 0.15 | 0 | 0.18 | 4.21 | 0.37 | 7.265 | 0.13 | 6272.95 | 19 |
| HZQ-5-7-3 | Py-II | 12825.53 | 2.39 | 0.99 | 211.95 | 1110.42 | 2.19 | 0.99 | 120.95 | 0.12 | 373.12 | 0.00 | 0.00 | 0.28 |
| HZQ-5-7-4 | Py-II | 699.45 | 13.29 | 0.00 | 271.56 | 3694.98 | 0.03 | 0.00 | 267.73 | 0.15 | 110.29 | 0.00 | 0.00 | 0.01 |
| HZQ-5-7-5 | Py-II | 499.55 | 2.49 | 0.13 | 0.15 | 0.18 | 0.00 | 0.00 | 30.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HZQ-5-7-6 | Py-II | 0.98 | 7.29 | 0.36 | 153.16 | 10903.50 | 0.15 | 2.19 | 13.44 | 0.01 | 456.64 | 0.00 | 0.00 | 0.05 |
| HZQ-5-7-7 | Py-II | 175.13 | 1.97 | 0.00 | 260.65 | 14236.91 | 0.00 | 1.23 | 106.06 | 0.00 | 676.50 | 0.00 | 0.00 | 0.05 |
| HZQ-5-7-8 | Py-II | 1230.55 | 1.84 | 0.00 | 47.73 | 407.39 | 0.08 | 0.00 | 111.96 | 0.00 | 55.03 | 0.00 | 0.00 | 0.00 |
| HZQ-5-7-9 | Py-II | 5516.54 | 0.00 | 17.32 | 1185.76 | 317714.6 | 32.91 | 4.56 | 2201.00 | 6.70 | 22127.42 | 0.00 | 0.00 | 0.23 |
| HZQ-5-7-10 | Py-II | 6281.81 | 13.51 | 0.00 | 6751.67 | 426868.3 | 112.87 | 103.26 | 5337.38 | 0.00 | 61679.25 | 0.00 | 0.00 | 0.94 |
| HZQ-5-2-1 | Py-II | 2.73 | 0.00 | 0.00 | 365.72 | 50773.44 | 44.30 | 5.80 | 21.52 | 0.00 | 2440.59 | 0.00 | 0.00 | 0.00 |
| HZQ-5-2-2 | Py-II | 0.00 | 113.06 | 0.00 | 240.65 | 44687.32 | 335.92 | 0.00 | 1.39 | 0.00 | 2985.58 | 0.00 | 0.00 | 0.72 |
| HZQ-5-2-3 | Py-II | 0.00 | 0.00 | 3.60 | 162.24 | 51752.36 | 1494.66 | 9.04 | 2.57 | 1.20 | 4258.05 | 0.00 | 0.00 | 0.27 |
| HZQ-5-2-4 | Py-II | 0.00 | 0.00 | 0.00 | 103.38 | 49299.05 | 1366.24 | 0.00 | 12.46 | 0.00 | 4277.81 | 0.00 | 0.00 | 0.00 |
| HZQ-5-2-5 | Py-II | 27.23 | 0.00 | 0.00 | 2636.88 | 57100.40 | 1780.65 | 12.38 | 329.65 | 2.89 | 6382.17 | 0.00 | 0.00 | 0.00 |
| HZQ-5-2-6 | Py-II | 32.30 | 211.00 | 0.00 | 49.55 | 48639.69 | 1185.25 | 4.29 | 3.34 | 0.00 | 4424.64 | 0.00 | 0.00 | 1.35 |
| HZQ-5-2-7 | Py-II | 11.11 | 48.35 | 0.51 | 310.46 | 42874.88 | 22.92 | 660.78 | 53.04 | 0.00 | 4613.97 | 0.00 | 0.00 | 0.00 |
| HZQ-5-2-8 | Py-II | 0.00 | 18.38 | 6.73 | 545.70 | 41431.41 | 5.54 | 212.35 | 78.96 | 1.40 | 3916.74 | 0.00 | 0.00 | 0.30 |
| HZQ-5-2-9 | Py-II | 0.00 | 0.00 | 0.00 | 825.91 | 40333.16 | 0.27 | 25.55 | 57.11 | 0.06 | 2640.85 | 0.00 | 0.00 | 0.00 |
| HZQ-5-2-10 | Py-II | 56.89 | 3.46 | 0.00 | 374.43 | 32314.35 | 0.39 | 21.46 | 80.76 | 0.00 | 1825.19 | 0.00 | 0.00 | 0.01 |
| HZQ-13-10-1 | Py-II | 3.1 | 26.9 | 5.3 | 306.4 | 64085.3 | 8.98 | 54.58 | 175.05 | 0.44 | 5456.05 | 0.00 | 0.00 | 0.00 |
| HZQ-13-10-2 | Py-II | 82.8 | 0.0 | 3.2 | 185.3 | 26271.7 | 0.53 | 3.75 | 122.37 | 0.95 | 2542.9 | 0.00 | 0.00 | 0.72 |
| HZQ-13-10-3 | Py-II | 11079.9 | 1223.9 | 16.8 | 2234.7 | 640227.9 | 1032.77 | 44.07 | 13372.99 | 0.00 | 141525.4 | 0.00 | 0.00 | 0.00 |
| HZQ-13-10-4 | Py-II | 21323.6 | 0.0 | 0.0 | 4003.8 | 798923.3 | 218.14 | 21.40 | 23596.24 | 0.00 | 148735.2 | 0.00 | 0.00 | 0.00 |
| HZQ-13-10-5 | Py-II | 0.0 | 231.4 | 21.1 | 2300.9 | 639966.8 | 360.49 | 245.01 | 699.45 | 0.00 | 81471.8 | 0.00 | 0.00 | 10.30 |
| HZQ-13-10-6 | Py-II | 18492.6 | 1123.1 | 0.0 | 18864.5 | 1323871.3 | 1865.47 | 6087.31 | 6313.59 | 0.00 | 243663.6 | 0.00 | 0.00 | 0.00 |
| HZQ-13-10-7 | Py-II | 22.6 | 152.3 | 0.0 | 265.5 | 43601.4 | 318.75 | 5.19 | 182.30 | 2.09 | 4434.5 | 0.00 | 0.00 | 0.29 |
| HZQ-13-10-8 | Py-II | 16.0 | 0.0 | 0.0 | 1032.1 | 28001.0 | 0.34 | 7.44 | 161.85 | 0.00 | 1777.7 | 0.00 | 0.00 | 0.00 |
| HZQ-13-10-9 | Py-II | 42.9 | 6.4 | 0.8 | 1373.6 | 104243.9 | 211.68 | 150.97 | 450.47 | 3.02 | 19265.0 | 0.00 | 0.00 | 0.00 |
| HZQ-13-10-10 | Py-II | 3.3 | 65.6 | 2.2 | 692.8 | 35602.5 | 12.14 | 11.51 | 398.29 | 0.53 | 3133.3 | 0.00 | 0.00 | 0.00 |
| HZQ-13-16-1 | Py-II | 40152.7 | 0.0 | 7.9 | 1290.0 | 56789.7 | 26.79 | 71.77 | 23092.83 | 1.49 | 8330.9 | 0.00 | 0.00 | 0.00 |
| HZQ-13-16-2 | Py-II | 14005.0 | 0.0 | 0.1 | 9.4 | 3.7 | 0.03 | 0.00 | 27.69 | 0.08 | 0.0 | 0.00 | 0.00 | 0.01 |
| HZQ-13-16-3 | Py-II | 196.3 | 61.2 | 0.0 | 1266.8 | 54802.4 | 3.61 | 23.40 | 702.25 | 0.00 | 4152.0 | 0.00 | 0.00 | 0.16 |
| HZQ-13-16-4 | Py-II | 5.3 | 54.1 | 0.0 | 819.0 | 25927.9 | 0.90 | 33.67 | 482.79 | 0.00 | 1990.2 | 0.00 | 0.00 | 0.31 |
| HZQ-13-16-5 | Py-II | 1005.0 | 1756.3 | 0.0 | 1342.1 | 564267.7 | 3972.27 | 15059.94 | 982.39 | 0.00 | 159204.8 | 0.00 | 0.00 | 8.86 |
| HZQ-13-16-6 | Py-II | 15.7 | 0.0 | 9.9 | 2959.4 | 99562.6 | 273.58 | 48.12 | 1773.15 | 0.00 | 22454.1 | 0.00 | 0.00 | 0.00 |
| HZQ-13-16-7 | Py-II | 6.8 | 7.5 | 1.3 | 66.9 | 28143.1 | 15.91 | 5.21 | 1.61 | 0.00 | 2116.3 | 0.00 | 0.00 | 0.58 |
| HZQ-13-16-8 | Py-II | 0.7 | 0.0 | 0.0 | 157.3 | 55706.7 | 9.89 | 93.20 | 165.88 | 0.97 | 4025.7 | 0.00 | 0.00 | 0.19 |
| HZQ-13-16-9 | Py-II | 4.0 | 102.7 | 5.8 | 155.9 | 36704.1 | 122.43 | 13.28 | 14.71 | 0.34 | 2958.41 | 0.00 | 0.00 | 0.15 |
| HZQ-13-16-10 | Py-II | 20.7 | 96.2 | 0.0 | 343.3 | 64619.1 | 3.52 | 76.52 | 46.16 | 0.00 | 4278.23 | 0.00 | 0.00 | 0.30 |
| HZQ-11i-1 | Py-III | 970.96 | 1.88 | 0.13 | 0.025 | 0.12 | 0.01 | 0.22 | 0.41 | 0.05 | 1.445 | 0.03 | 0.1 | 35.18 |
| HZQ-11i-1 | Py-III | 1427.59 | 5.88 | 0.41 | 5.715 | 0.68 | 0.02 | 0.75 | 7.23 | 0.17 | 3.53 | 0.1 | 28930.83 | 108.95 |
| HZQ-11i-2 | Py-III | 668.78 | 10.52 | 0.47 | 666.485 | 14.8 | 0.02 | 0.82 | 733.63 | 0.16 | 3.585 | 1.84 | 3920720 | 507.55 |
| HZQ-11i-2 | Py-III | 1307.39 | 5.98 | 0.31 | 22.825 | 0.35 | 0.02 | 0.59 | 41.08 | 0.11 | 2.34 | 0.1 | 59781.47 | 79.91 |
| HZQ-11i-3 | Py-III | 528.32 | 4.31 | 0.23 | 2.05 | 0.36 | 0.01 | 0.39 | 11.72 | 0.07 | 1.72 | 0.06 | 83.23 | 56.14 |
| HZQ-11i-3 | Py-III | 510.75 | 11.18 | 1.12 | 86.535 | 2.67 | 0.03 | 0.89 | 94.99 | 0.16 | 3.93 | 0.28 | 371180.6 | 127.81 |
| HZQ-11i-4 | Py-III | 1051.6 | 3.42 | 0.3 | 7.855 | 0.19 | 0.01 | 0.36 | 39.47 | 0.07 | 1.6 | 0.06 | 411.14 | 53.64 |
| HZQ-11i-4 | Py-III | 981.77 | 8.29 | 0.57 | 150.53 | 12.4 | 0.03 | 0.87 | 167.38 | 0.16 | 3.83 | 0.31 | 522182.6 | 128.66 |
| HZQ-11i-5 | Py-III | 550.58 | 15.44 | 1.41 | 12.435 | 0.95 | 0.08 | 1.65 | 32.2 | 0.39 | 7.03 | 0.22 | 4348.47 | 231.37 |
| HZQ-11i-5 | Py-III | 902.23 | 18.53 | 1.36 | 15.665 | 1.14 | 0.09 | 1.73 | 13.65 | 0.47 | 8.37 | 0.26 | 71290.03 | 274.55 |
| HZQ-11i-6 | Py-III | 1195.12 | 3.36 | 0.16 | 0.1 | 0.19 | 0.02 | 0.29 | 8.57 | 0.07 | 1.47 | 0.05 | 16.78 | 47.48 |
| HZQ-11i-6 | Py-III | 528.89 | 8.42 | 0.4 | 165.79 | 1.88 | 0.04 | 0.73 | 150.47 | 0.19 | 3.69 | 0.27 | 719080.4 | 199.31 |
| HZQ-11i-7 | Py-III | 481.11 | 4.26 | 0.15 | 0.08 | 0.18 | 0.01 | 0.34 | 0.56 | 0.07 | 1.59 | 0.05 | 3.78 | 49.72 |
| HZQ-11i-7 | Py-III | 1308.09 | 4.43 | 0.16 | 9.485 | 0.19 | 0.01 | 0.35 | 12.76 | 0.07 | 1.635 | 0.05 | 124.91 | 51.11 |
| HZQ-11i-8 | Py-III | 12.08 | 86.23 | 6.31 | 2758.92 | 33588.01 | 0.45 | 38.25 | 1204.46 | 1.72 | 2229.275 | 0.91 | 843.17 | 1053.69 |
| HZQ-11i-8 | Py-III | 1127.4 | 6.19 | 0.33 | 80.795 | 440.91 | 0.02 | 0.55 | 68.37 | 0.12 | 24.515 | 0.07 | 3667.33 | 75.75 |
| HZQ-11i-9 | Py-III | 11.66 | 72.06 | 3.97 | 758.485 | 27759.16 | 0.28 | 42.31 | 80.09 | 1.34 | 1889.065 | 0.96 | 551.85 | 839.51 |
| HZQ-11i-9 | Py-III | 1233.22 | 26.57 | 1.46 | 1021.7 | 2832 | 0.11 | 4.15 | 1149.99 | 0.49 | 126.275 | 1.66 | 3494763 | 614.46 |
| HZQ-7-8-6 | Py-III | 2662.35 | 4.47 | 0.17 | 0.09 | 0.28 | 0.02 | 0.43 | 5.62 | 0.08 | 3.435 | 0.05 | 4.53 | 53.94 |
| HZQ-7-8-6 | Py-III | 2208.94 | 5.7 | 0.22 | 26.46 | 0.36 | 0.02 | 0.54 | 55.71 | 0.1 | 4.34 | 0.07 | 96927.55 | 68.34 |
| HZQ-7-8-7 | Py-III | 830.87 | 2.76 | 0.22 | 0.045 | 0.12 | 0.01 | 0.29 | 1.16 | 0.06 | 1.69 | 0.03 | 0.69 | 41.23 |
| HZQ-7-8-8 | Py-III | 1135.69 | 3.7 | 0.39 | 1.075 | 0.21 | 0.02 | 0.38 | 16.33 | 0.07 | 2.04 | 0.05 | 60.3 | 56.17 |
| HZQ-7-8-8 | Py-III | 873.69 | 4.25 | 0.45 | 0.925 | 0.25 | 0.02 | 0.44 | 7.34 | 0.09 | 2.35 | 0.06 | 47.33 | 64.76 |
| HZQ-7-8-9 | Py-III | 439.8 | 3.16 | 0.26 | 0.035 | 0.22 | 0.01 | 0.24 | 0.17 | 0.06 | 1.36 | 0.03 | 0.32 | 44.56 |
| HZQ-7-8-10 | Py-III | 530.72 | 3.89 | 0.27 | 0.055 | 0.26 | 0.03 | 0.39 | 3.33 | 0.1 | 1.93 | 0.03 | 9.03 | 57.83 |
| HZQ-7-8-10 | Py-III | 264.49 | 3.71 | 0.25 | 0.165 | 0.24 | 0.01 | 0.37 | 14.93 | 0.09 | 1.855 | 0.03 | 51.15 | 55.56 |
| HZQ-11d-1 | Py-III | 148.02 | 2.46 | 0.07 | 0.025 | 0.2 | 0.01 | 0.3 | 0.47 | 0.07 | 1.085 | 0.02 | 1.89 | 51.39 |
| HZQ-11d-1 | Py-III | 85.32 | 7.31 | 0.21 | 61.575 | 0.61 | 0.04 | 0.9 | 60.45 | 0.22 | 3.205 | 0.09 | 313174.3 | 153.19 |
| HZQ-11d-2 | Py-III | 98.12 | 2.44 | 0.08 | 0.04 | 0.2 | 0.01 | 0.4 | 0.15 | 0.08 | 1.19 | 0.02 | 0.97 | 54.15 |
| HZQ-11d-3 | Py-III | 144.27 | 2.57 | 0.1 | 0.035 | 0.2 | 0.02 | 0.48 | 0.18 | 0.07 | 1.365 | 0.03 | 0.17 | 67.58 |
| HZQ-11d-3 | Py-III | 234.12 | 3.97 | 0.15 | 8.275 | 0.32 | 0.03 | 0.76 | 1.72 | 0.12 | 2.135 | 0.05 | 174.21 | 105.44 |
| HZQ-11d-4 | Py-III | 65.11 | 2.54 | 0.07 | 27.44 | 0.2 | 0.02 | 0.36 | 26.82 | 0.05 | 1.725 | 0.04 | 22345.91 | 70.43 |
| HZQ-11k-1 | Py-III | 496.41 | 3.53 | 0.19 | 69.16 | 66.22 | 0.04 | 0.17 | 32.92 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HZQ-11k-2 | Py-III | 752.66 | 1.44 | 10.09 | 4.39 | 0.13 | 0.03 | 0.54 | 12.83 | 0.00 | 0.16 | 0.00 | 0.00 | 0.43 |
| HZQ-11k-3 | Py-III | 348.12 | 5.91 | 0.45 | 3.24 | 0.66 | 0.00 | 0.08 | 8.54 | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 |
| HZQ-11k-4 | Py-III | 526.65 | 2.03 | 0.00 | 4.06 | 0.14 | 0.01 | 0.00 | 4.30 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| HZQ-11k-5 | Py-III | 1089.52 | 0.41 | 0.09 | 0.99 | 0.06 | 0.00 | 0.00 | 21.04 | 0.00 | 0.96 | 0.00 | 0.00 | 0.01 |
| HZQ-11k-6 | Py-III | 769.88 | 7.83 | 0.00 | 355.26 | 8.13 | 0.03 | 0.94 | 211.24 | 0.00 | 1.81 | 0.00 | 0.00 | 0.16 |
| HZQ-11k-7 | Py-III | 407.42 | 0.00 | 0.00 | 147.78 | 4.41 | 0.01 | 0.00 | 93.79 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 |
| HZQ-11k-8 | Py-III | 650.73 | 0.02 | 0.06 | 7.87 | 0.00 | 0.00 | 0.00 | 5.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HZQ-11k-9 | Py-III | 886.82 | 0.34 | 0.30 | 9.28 | 0.00 | 0.02 | 0.00 | 8.29 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 |
| HZQ-11k-10 | Py-III | 568.06 | 0.70 | 0.00 | 4.57 | 0.02 | 0.00 | 0.00 | 36.21 | 0.00 | 0.59 | 0.00 | 0.00 | 0.00 |
| HZQ-5b-7-1 | Py-III | 78.9 | 0.0 | 0.0 | 48.2 | 0.4 | 0.00 | 0.00 | 46.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HZQ-5b-7-2 | Py-III | 552.6 | 0.0 | 0.0 | 2960.7 | 19876.2 | 6.18 | 24.23 | 1437.65 | 0.00 | 2083.36 | 0.00 | 0.00 | 0.28 |
| HZQ-5b-7-3 | Py-III | 13854.7 | 2.2 | 0.2 | 422.2 | 348.5 | 0.36 | 0.00 | 247.66 | 0.14 | 34.92 | 0.00 | 0.00 | 0.20 |
| HZQ-5b-7-4 | Py-III | 6942.6 | 0.0 | 0.4 | 62.2 | 0.0 | 0.00 | 0.00 | 46.48 | 0.20 | 0.00 | 0.00 | 0.00 | 0.01 |
| HZQ-5b-7-5 | Py-III | 6668.7 | 29.1 | 13.8 | 2796.2 | 8549.0 | 78.23 | 84.92 | 1991.81 | 0.00 | 5941.64 | 0.00 | 0.00 | 0.00 |
| HZQ-5b-7-6 | Py-III | 16.3 | 57.5 | 0.0 | 703.6 | 31140.0 | 76.02 | 48.17 | 107.69 | 0.23 | 2842.58 | 0.00 | 0.00 | 0.17 |
| HZQ-5b-7-7 | Py-III | 340.3 | 0.0 | 0.0 | 1849.6 | 136856.3 | 282.64 | 75.99 | 948.31 | 1.20 | 24929.91 | 0.00 | 0.00 | 0.00 |
| HZQ-5b-7-8 | Py-III | 367.5 | 0.0 | 2.6 | 2037.0 | 24817.7 | 83.01 | 19.33 | 1229.26 | 0.00 | 2039.49 | 0.00 | 0.00 | 0.09 |
| HZQ-5b-7-9 | Py-III | 0.0 | 0.0 | 0.0 | 83.6 | 19845.2 | 0.02 | 11.12 | 124.15 | 0.22 | 683.92 | 0.00 | 0.00 | 0.04 |
| HZQ-5b-7-10 | Py-III | 2032.2 | 380.8 | 5.3 | 19596.1 | 89038.9 | 495.86 | 70.68 | 17709.42 | 0.00 | 12554.13 | 0.00 | 0.00 | 0.00 |
| HZQ-11a-1 | Py-III | 535.0 | 0.5 | 0.1 | 0.5 | 0.2 | 0.00 | 0.07 | 2.23 | 0.03 | 0.68 | 0.00 | 0.00 | 0.02 |
| HZQ-11a-2 | Py-III | 104.5 | 4.4 | 0.0 | 1.3 | 0.0 | 0.01 | 0.00 | 8.03 | 0.00 | 0.78 | 0.00 | 0.00 | 0.00 |
| HZQ-11a-3 | Py-III | 444.3 | 0.8 | 0.1 | 5.7 | 0.1 | 0.00 | 0.00 | 21.13 | 0.00 | 0.63 | 0.00 | 0.00 | 0.03 |
| HZQ-11a-4 | Py-III | 423.0 | 0.0 | 0.0 | 6.9 | 0.2 | 0.00 | 0.17 | 127.95 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 |
| HZQ-11a-5 | Py-III | 203.8 | 0.3 | 0.1 | 0.0 | 0.0 | 0.00 | 0.14 | 0.22 | 0.06 | 0.48 | 0.00 | 0.00 | 0.01 |
| HZQ-11a-6 | Py-III | 1617.7 | 0.0 | 0.0 | 0.1 | 0.4 | 0.00 | 0.11 | 54.07 | 0.05 | 0.33 | 0.00 | 0.00 | 0.00 |
| HZQ-11a-7 | Py-III | 3.8 | 62.7 | 0.0 | 123.6 | 23979.4 | 0.25 | 3.92 | 81.35 | 0.65 | 686.37 | 0.00 | 0.00 | 0.25 |
| HZQ-11a-8 | Py-III | 0.6 | 15.5 | 0.9 | 122.5 | 23585.4 | 0.03 | 5.92 | 1.44 | 0.00 | 728.61 | 0.00 | 0.00 | 0.00 |
| HZQ-11a-9 | Py-III | 0.0 | 14.9 | 0.9 | 317.3 | 27614.5 | 0.00 | 6.83 | 70.17 | 0.00 | 916.19 | 0.00 | 0.00 | 0.72 |
| HZQ-11a-10 | Py-III | 0.0 | 0.0 | 1.3 | 305.1 | 24789.2 | 0.00 | 3.85 | 97.41 | 0.16 | 834.19 | 0.00 | 0.00 | 0.31 |
| HZQ-11c-1 | Py-III | 1010.7 | 2.6 | 0.0 | 0.1 | 0.1 | 0.01 | 0.07 | 3.67 | 0.05 | 0.06 | 0.00 | 0.00 | 0.00 |
| HZQ-11c-2 | Py-III | 278.1 | 0.0 | 0.1 | 2.5 | 0.1 | 0.00 | 0.08 | 11.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HZQ-11c-3 | Py-III | 1493.1 | 2.1 | 0.0 | 6.4 | 0.2 | 0.00 | 0.00 | 8.56 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| HZQ-11c-4 | Py-III | 551.5 | 2.8 | 0.1 | 0.0 | 0.0 | 0.01 | 0.00 | 2.79 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 |
| HZQ-11c-5 | Py-III | 127.7 | 1.2 | 0.0 | 7.6 | 0.0 | 0.01 | 0.00 | 29.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| HZQ-11c-6 | Py-III | 53.7 | 0.0 | 0.0 | 370.2 | 25865.3 | 0.14 | 25.43 | 505.35 | 0.00 | 1293.90 | 0.00 | 0.00 | 0.64 |
| HZQ-11c-7 | Py-III | 84.0 | 0.0 | 0.0 | 495.3 | 36806.1 | 0.00 | 27.90 | 767.25 | 0.00 | 2333.07 | 0.00 | 0.00 | 0.29 |
| HZQ-11c-8 | Py-III | 65.6 | 0.0 | 4.4 | 583.8 | 37979.2 | 0.45 | 19.49 | 695.77 | 0.33 | 2506.25 | 0.00 | 0.00 | 0.00 |
| HZQ-11c-9 | Py-III | 69.8 | 0.0 | 2.1 | 1176.4 | 22832.1 | 0.17 | 17.51 | 751.98 | 1.47 | 1464.21 | 0.00 | 0.00 | 0.00 |
| HZQ-11c-10 | Py-III | 3.8 | 15.3 | 0.5 | 291.9 | 16448.5 | 0.08 | 1.04 | 53.13 | 0.00 | 801.70 | 0.00 | 0.00 | 0.02 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample number** | **Types** | **S34** | **Mn55** | **Fe57** | **Co59** | **Ni60** | **Cu65** | **Zn66** | **Ga71** | **Ge74** |
| HZQ7-8-1 | Sph-I | 307070.63 | 45.51 | 2448355.53 | 0.04 | 0.46 | 898.4 | 640600 | 2.57 | 325.31 |
| HZQ7-8-2 | Sph-I | 295721.38 | 12.79 | 259555.05 | 0.04 | 0.3 | 8.57 | 640600 | 1.03 | 0.45 |
| HZQ7-8-3 | Sph-I | 309551.42 | 77.96 | 933310.73 | 0.05 | 0.38 | 55.68 | 640600 | 3.78 | 14.80 |
| HZQ7-8-4 | Sph-I | 318964.31 | 102.83 | 1552288.7 | 0.04 | 0.42 | 72.98 | 640600 | 9.07 | 12.62 |
| HZQ7-8-5 | Sph-I | 319971.25 | 54.4 | 635583.69 | 0.04 | 0.41 | 19.4 | 640600 | 1.99 | 3.49 |
| HZQ11d-6 | Sph-I | 504302.57 | 17.93 | 1233953.05 | 0.06 | 0.77 | 175.37 | 640600 | 1.27 | 21.34 |
| HZQ11d-7 | Sph-I | 539834.68 | 85.04 | 3096555.91 | 0.07 | 0.9 | 375.46 | 640600 | 1.33 | 30.55 |
| HZQ11d-8 | Sph-I | 592417.36 | 100.18 | 3229541.67 | 0.06 | 0.98 | 605.65 | 640600 | 0.03 | 1.16 |
| HZQ11d-9 | Sph-I | 632934.38 | 21.26 | 1839045.15 | 0.06 | 0.88 | 778.67 | 640600 | 1.63 | 129.43 |
| HZQ11d-10 | Sph-I | 764609.19 | 24.58 | 1263536.74 | 0.15 | 2.9 | 369.3 | 640600 | 1.72 | 3.08 |
| HZQ13-6-1 | Sph-I | 863107.66 | 22.14 | 276451.9 | 0.16 | 3.42 | 89.66 | 640600 | 2.8 | 1.92 |
| HZQ13-6-2 | Sph-I | 947720.78 | 23.35 | 485404.87 | 0.12 | 3.07 | 77.45 | 640600 | 0.91 | 0.92 |
| HZQ13-6-3 | Sph-I | 1176942.99 | 24.05 | 642763.47 | 0.33 | 7.95 | 121.5 | 640600 | 1.86 | 1.52 |
| HZQ13-6-3 | Sph-I | 1204239.44 | 33.15 | 1470786.63 | 0.51 | 8.37 | 106.26 | 640600 | 1.32 | 1.90 |
| HZQ13-6-4 | Sph-I | 1325564.74 | 14.29 | 1080247.14 | 0.23 | 5.61 | 342.83 | 640600 | 1.12 | 0.92 |
| HZQ13-6-5 | Sph-I | 1507901.05 | 75.17 | 3944942.52 | 0.11 | 3.28 | 878.59 | 640600 | 0.29 | 52.44 |
| HZQ13-6-6 | Sph-I | 1847119.06 | 90.06 | 4522788.59 | 0.1 | 4.03 | 1447.49 | 640600 | 0.09 | 46.54 |
| HZQ13-6-7 | Sph-I | 2290494.21 | 80.69 | 4053050.12 | 0.13 | 5.68 | 1582.56 | 640600 | 0.32 | 48.41 |
| HZQ13-6-8 | Sph-I | 2849179.11 | 232.79 | 842902.84 | 0.22 | 13.99 | 495.01 | 640600 | 0.51 | 3.36 |
| HZQ13-6-9 | Sph-I | 3815841.65 | 195.96 | 3574319.53 | 0.27 | 21.71 | 612.99 | 640600 | 0.52 | 4.08 |
| HZQ-3-1-7 | Sph-I | 3356785.33 | 10.95 | 146665.39 | 0.21 | 5.52 | 6783.05 | 640600 | 320.98 | 129.13 |
| HZQ-3-1-8 | Sph-I | 2527618.61 | 10.47 | 132291.02 | 0.2 | 4.59 | 3864.3 | 640600 | 225.14 | 107.92 |
| HZQ-3-1-9 | Sph-I | 1939627.95 | 12.83 | 153833.77 | 0.33 | 4.49 | 222.5 | 640600 | 22.63 | 7.96 |
| HZQ-3-1-10 | Sph-I | 1417842.48 | 12.99 | 182010.67 | 0.17 | 1.77 | 256.45 | 640600 | 26.86 | 9.67 |
| HZ13-11-1 | Sph-I | 2041152.27 | 18.72 | 12884573.6 | 3.63 | 12.01 | 440.24 | 640600 | 6.25 | 16.42 |
| HZ13-11-1 | Sph-I | 1928496.46 | 17.11 | 9358569.41 | 0.48 | 3.55 | 385.64 | 640600 | 6.18 | 22.23 |
| HZ13-11-6 | Sph-I | 959908.01 | 15 | 1181210.42 | 0.17 | 2.02 | 11.18 | 640600 | 0.64 | 0.67 |
| HZ13-11-7 | Sph-I | 775300.28 | 18.05 | 1299452.67 | 0.15 | 1.82 | 14.37 | 640600 | 0.73 | 0.77 |
| HZ13-11-8 | Sph-I | 657290.07 | 29.45 | 1201818.01 | 0.12 | 1.36 | 9.15 | 640600 | 0.83 | 0.72 |
| HZ13-11-9 | Sph-I | 527333.41 | 22.58 | 1030184.02 | 0.17 | 0.78 | 12.42 | 640600 | 0.51 | 2.05 |
| HZ13-11-10 | Sph-I | 479060.63 | 33.97 | 1423237.39 | 0.13 | 0.98 | 5.42 | 640600 | 0.29 | 0.95 |
| HZQ-5-7-6 | Sph-I | 358011.4 | 113.4 | 149995.2 | 0.2 | 0.4 | 863.7 | 640600.0 | 0.0 | 271.3 |
| HZQ-5-7-7 | Sph-I | 343259.4 | 70.4 | 125800.3 | 0.1 | 2.0 | 361.5 | 640600.0 | 0.2 | 102.8 |
| HZQ-5-7-8 | Sph-I | 1889822.9 | 6.2 | 2390878.3 | 6.2 | 94.1 | 525.0 | 640600.0 | 0.0 | 27.1 |
| HZQ-5-7-9 | Sph-I | 283154.8 | 9.2 | 4857.4 | 0.0 | 0.2 | 65.5 | 640600.0 | 4.2 | 10.7 |
| HZQ-5-7-10 | Sph-I | 275916.2 | 9.0 | 3388.4 | 0.0 | 0.0 | 65.6 | 640600.0 | 4.6 | 4.2 |
| HZQ-5-2-1 | Sph-I | 286086.4 | 14.3 | 27832.3 | 0.1 | 0.0 | 15.0 | 640600.0 | 0.3 | 0.7 |
| HZQ-5-2-2 | Sph-I | 291749.7 | 11.8 | 25058.4 | 0.0 | 0.2 | 21.8 | 640600.0 | 3.6 | 0.8 |
| HZQ-5-2-3 | Sph-I | 292922.0 | 9.4 | 22236.9 | 0.0 | 0.0 | 40.6 | 640600.0 | 3.9 | 0.8 |
| HZQ-5-2-4 | Sph-I | 310474.3 | 9.4 | 22000.8 | 0.0 | 0.0 | 37.4 | 640600.0 | 4.6 | 0.7 |
| HZQ-5-2-5 | Sph-I | 310940.0 | 13.6 | 20267.2 | 0.2 | 0.0 | 72.4 | 640600.0 | 4.1 | 0.8 |
| HZQ-5-2-6 | Sph-I | 324237.0 | 9.7 | 21267.8 | 0.1 | 0.0 | 35.1 | 640600.0 | 5.9 | 1.3 |
| HZQ-5-2-7 | Sph-I | 317547.9 | 13.1 | 22724.6 | 0.1 | 0.0 | 108.8 | 640600.0 | 8.8 | 21.2 |
| HZQ-5-2-8 | Sph-I | 314915.5 | 14.7 | 25479.3 | 0.0 | 0.0 | 137.4 | 640600.0 | 8.7 | 34.4 |
| HZQ-5-2-9 | Sph-I | 304355.6 | 14.9 | 26272.5 | 0.0 | 0.1 | 109.2 | 640600.0 | 3.9 | 28.0 |
| HZQ-5-2-10 | Sph-I | 320854.9 | 21.7 | 35980.2 | 0.0 | 0.5 | 202.2 | 640600.0 | 5.1 | 61.0 |
| HZQ-5b-7-6 | Sph-I | 327610.2 | 13.0 | 14596.2 | 0.0 | 0.0 | 445.9 | 640600.0 | 0.5 | 1.3 |
| HZQ-5b-7-7 | Sph-I | 331284.0 | 9.0 | 6458.6 | 0.0 | 0.0 | 33.6 | 640600.0 | 1.0 | 1.3 |
| HZQ-5b-7-8 | Sph-I | 340454.3 | 36.7 | 34829.7 | 0.0 | 0.0 | 269.4 | 640600.0 | 1.2 | 6.5 |
| HZQ-5b-7-9 | Sph-I | 332888.8 | 130.2 | 78351.6 | 0.0 | 0.0 | 25.2 | 640600.0 | 0.5 | 3.2 |
| HZQ-5b-7-10 | Sph-I | 314932.6 | 21.5 | 18207.1 | 0.0 | 0.1 | 526.0 | 640600.0 | 1.1 | 0.5 |
| HZQ-11a-7 | Sph-I | 340151.0 | 33.2 | 62434.6 | 0.1 | 0.7 | 12.9 | 640600.0 | 0.1 | 2.1 |
| HZQ-11a-8 | Sph-I | 346605.2 | 32.3 | 61119.3 | 0.0 | 0.7 | 257.1 | 640600.0 | 1.2 | 90.2 |
| HZQ-11a-9 | Sph-I | 346836.3 | 27.9 | 51686.0 | 0.0 | 0.0 | 7.8 | 640600.0 | 0.1 | 0.1 |
| HZQ-11a-10 | Sph-I | 350153.9 | 31.0 | 59419.3 | 0.1 | 0.5 | 261.5 | 640600.0 | 1.1 | 93.3 |
| HZQ-11c-6 | Sph-I | 343959.3 | 35.3 | 41325.4 | 0.0 | 0.0 | 356.4 | 640600.0 | 1.5 | 118.1 |
| HZQ-11c-7 | Sph-I | 345013.5 | 24.0 | 32261.5 | 0.0 | 0.0 | 234.6 | 640600.0 | 1.1 | 72.1 |
| HZQ-11c-8 | Sph-I | 342653.9 | 31.6 | 31905.2 | 0.0 | 0.5 | 273.3 | 640600.0 | 1.0 | 90.0 |
| HZQ-11c-9 | Sph-I | 352873.9 | 48.8 | 48836.7 | 0.0 | 0.0 | 421.8 | 640600.0 | 1.4 | 136.9 |
| HZQ-11c-10 | Sph-I | 354166.0 | 115.2 | 112680.3 | 0.0 | 0.0 | 24.1 | 640600.0 | 0.1 | 5.9 |
| HZQ-13-10-1 | Sph-I | 316067.4 | 157.4 | 33261.3 | 0.0 | 0.0 | 202.8 | 640600.0 | 2.9 | 55.1 |
| HZQ-13-10-2 | Sph-I | 327171.9 | 122.3 | 49078.8 | 0.0 | 0.0 | 27.3 | 640600.0 | 0.5 | 19.7 |
| HZQ-13-10-3 | Sph-I | 296060.3 | 22.2 | 1888.9 | 0.0 | 0.0 | 402.2 | 640600.0 | 71.2 | 55.7 |
| HZQ-13-10-4 | Sph-I | 295665.5 | 23.3 | 1916.2 | 0.0 | 0.0 | 408.8 | 640600.0 | 55.6 | 55.1 |
| HZQ-13-10-5 | Sph-I | 299134.0 | 4.6 | 1896.2 | 0.1 | 0.0 | 9.3 | 640600.0 | 1.7 | 0.6 |
| HZQ-13-10-6 | Sph-I | 296631.2 | 39.3 | 855.8 | 0.0 | 0.0 | 244.9 | 640600.0 | 35.6 | 35.6 |
| HZQ-13-10-7 | Sph-I | 297228.9 | 8.3 | 19345.9 | 0.0 | 0.0 | 23.2 | 640600.0 | 2.0 | 0.6 |
| HZQ-13-10-8 | Sph-I | 303594.8 | 18.1 | 42921.0 | 0.0 | 0.6 | 10.1 | 640600.0 | 0.5 | 0.4 |
| HZQ-13-10-9 | Sph-I | 297078.6 | 13.7 | 21476.0 | 0.0 | 0.0 | 44.0 | 640600.0 | 0.6 | 2.9 |
| HZQ-13-10-10 | Sph-I | 297358.0 | 7.8 | 22936.0 | 0.1 | 0.0 | 17.2 | 640600.0 | 1.2 | 0.5 |
| HZQ-13-16-1 | Sph-I | 312912.7 | 14.89 | 20816.29 | 0.11 | 0.75 | 69.14 | 640600 | 5.76 | 6.78 |
| HZQ-13-16-3 | Sph-I | 294774.8 | 98.06 | 22343.05 | 0.04 | 0.00 | 126.44 | 640600 | 5.57 | 27.44 |
| HZQ-13-16-4 | Sph-I | 297641.0 | 109.12 | 47753.20 | 0.01 | 0.00 | 617.90 | 640600 | 5.94 | 158.02 |
| HZQ-13-16-5 | Sph-I | 291771.4 | 19.43 | 1301.25 | 0.01 | 0.19 | 62.35 | 640600 | 4.75 | 4.97 |
| HZQ-13-16-6 | Sph-I | 294891.9 | 5.15 | 8572.47 | 0.03 | 0.15 | 36.67 | 640600 | 1.01 | 1.10 |
| HZQ-13-16-7 | Sph-I | 294772.7 | 12.31 | 30392.55 | 0.00 | 0.00 | 8.09 | 640600 | 0.57 | 0.72 |
| HZQ-13-16-8 | Sph-I | 291039.4 | 135.37 | 22875.12 | 0.03 | 0.00 | 220.58 | 640600 | 3.71 | 61.24 |
| HZQ-13-16-9 | Sph-I | 295586.5 | 7.81 | 19880.35 | 0.10 | 0.00 | 18.08 | 640600 | 4.22 | 0.13 |
| HZQ-13-16-10 | Sph-I | 283849.4 | 120.17 | 17411.19 | 0.00 | 0.35 | 361.26 | 640600 | 16.02 | 102.13 |
| HZQ-3-3-Sph - 1 | Sph-II | 302308.32 | 10.67 | 1812.49 | 0.02 | 0.11 | 35.57 | 640600 | 12.3 | 7.96 |
| HZQ-3-3-Sph - 2 | Sph-II | 300813.01 | 6 | 1023.14 | 0.02 | 0.12 | 237.69 | 640600 | 89.63 | 55.85 |
| HZQ-3-3-Sph - 3 | Sph-II | 299431.71 | 8.48 | 1353.83 | 0.02 | 0.11 | 65.21 | 640600 | 36.61 | 14.27 |
| HZQ-3-3-Sph - 4 | Sph-II | 297294.92 | 27.85 | 144.28 | 0.02 | 0.13 | 685.36 | 640600 | 13.71 | 204.7 |
| HZQ-3-3-Sph - 5 | Sph-II | 297473.55 | 9.29 | 1595.28 | 0.02 | 0.12 | 21.13 | 640600 | 8.87 | 3.02 |
| HZQ-3-3-Sph - 6 | Sph-II | 299040.8 | 7.01 | 1406.94 | 0.02 | 0.12 | 36.74 | 640600 | 16.41 | 6.29 |
| HZQ-3-3-Sph - 7 | Sph-II | 296480.8 | 6.55 | 929.98 | 0.02 | 0.13 | 48.04 | 640600 | 13.59 | 3.99 |
| HZQ-3-3-Sph - 8 | Sph-II | 297044.24 | 6.37 | 895.31 | 0.02 | 0.14 | 33.49 | 640600 | 10.46 | 3.26 |
| HZQ-3-3-Sph - 9 | Sph-II | 296428.89 | 7.8 | 1136.05 | 0.02 | 0.13 | 64.08 | 640600 | 31.4 | 10.48 |
| HZQ-3-3-Sph - 10 | Sph-II | 300010.7 | 13.7 | 2081.54 | 0.02 | 0.13 | 182.6 | 640600 | 15.1 | 14.87 |
| HZQ-4-1-Sph - 1 | Sph-II | 300421.06 | 11.16 | 12792.11 | 0.02 | 0.12 | 2.13 | 640600 | 0.01 | 0.09 |
| HZQ-4-1-Sph - 2 | Sph-II | 301121.38 | 9.31 | 9562.18 | 0.03 | 0.13 | 5.06 | 640600 | 0.88 | 0.12 |
| HZQ-4-1-Sph - 3 | Sph-II | 301560.64 | 10.84 | 11499.43 | 0.02 | 0.12 | 57.56 | 640600 | 1.38 | 26.38 |
| HZQ-4-1-Sph - 4 | Sph-II | 301635.66 | 10.43 | 11111.6 | 0.02 | 0.11 | 82.84 | 640600 | 2.86 | 37.07 |
| HZQ-4-1-Sph - 5 | Sph-II | 300243.35 | 9.84 | 9793.46 | 0.02 | 0.12 | 2.29 | 640600 | 0.12 | 0.08 |
| HZQ-4-1-Sph - 6 | Sph-II | 301341.57 | 10.57 | 11354.87 | 0.02 | 0.11 | 6.04 | 640600 | 0.28 | 0.35 |
| HZQ-4-1-Sph - 7 | Sph-II | 304660.17 | 13.09 | 16352.4 | 0.02 | 0.11 | 2.84 | 640600 | 0.03 | 0.08 |
| HZQ-4-1-Sph - 8 | Sph-II | 303670.38 | 12.51 | 14739.62 | 0.02 | 0.12 | 37.73 | 640600 | 0.65 | 18.05 |
| HZQ-4-1-Sph - 9 | Sph-II | 302875.28 | 11.85 | 13911.12 | 0.02 | 0.12 | 2.2 | 640600 | 0.15 | 0.09 |
| HZQ-4-1-Sph - 10 | Sph-II | 303441.39 | 10.65 | 12334.48 | 0.02 | 0.13 | 50.25 | 640600 | 1.78 | 22.29 |
| HZQ-5-9-Sph - 1 | Sph-II | 304385.58 | 11.17 | 10443.8 | 0.03 | 0.13 | 17.55 | 640600 | 0.46 | 2.17 |
| HZQ-5-9-Sph - 2 | Sph-II | 302360.8 | 9.83 | 7742.1 | 0.03 | 0.13 | 12.55 | 640600 | 0.15 | 0.49 |
| HZQ-5-9-Sph - 3 | Sph-II | 302427.99 | 10.57 | 7826 | 0.03 | 0.13 | 11.95 | 640600 | 1.52 | 0.24 |
| HZQ-5-9-Sph - 4 | Sph-II | 300030.91 | 7.45 | 7398.03 | 0.02 | 0.14 | 15.61 | 640600 | 2.87 | 0.78 |
| HZQ-5-9-Sph - 5 | Sph-II | 300195.21 | 11.64 | 11987.62 | 0.05 | 0.14 | 10.86 | 640600 | 0.76 | 0.3 |
| HZQ-5-9-Sph - 6 | Sph-II | 301976.76 | 14.47 | 10070.1 | 0.02 | 0.13 | 227.13 | 640600 | 25.89 | 89.93 |
| HZQ-5-9-Sph - 7 | Sph-II | 303729.4 | 11.12 | 11637.81 | 0.02 | 0.12 | 26.39 | 640600 | 3.2 | 7.11 |
| HZQ-5-9-Sph - 8 | Sph-II | 302464.27 | 13.57 | 12332.72 | 0.02 | 0.12 | 119.57 | 640600 | 3.23 | 53.26 |
| HZQ-5-9-Sph - 9 | Sph-II | 320087.9 | 9.14 | 8807.31 | 0.05 | 0.27 | 69.22 | 640600 | 2.19 | 46.09 |
| HZQ-5-9-Sph - 10 | Sph-II | 304257.45 | 12.8 | 10362.54 | 0.02 | 0.11 | 54.74 | 640600 | 1.64 | 19.42 |
| HZQ-7-3-Sph - 1 | Sph-II | 303498.38 | 11.74 | 12975.03 | 0.02 | 0.11 | 4.18 | 640600 | 0.04 | 0.14 |
| HZQ-7-3-Sph - 2 | Sph-II | 302556.46 | 9.48 | 9801.53 | 0.02 | 0.11 | 3.12 | 640600 | 1.19 | 0.3 |
| HZQ-7-3-Sph - 3 | Sph-II | 301899.25 | 8.83 | 9275.43 | 0.02 | 0.11 | 2.26 | 640600 | 0.49 | 0.1 |
| HZQ-7-3-Sph - 4 | Sph-II | 300941.47 | 8.19 | 8625.99 | 0.02 | 0.12 | 57.88 | 640600 | 2.57 | 25.34 |
| HZQ-7-3-Sph - 5 | Sph-II | 301851.17 | 8.93 | 9290.34 | 0.02 | 0.13 | 1.57 | 640600 | 0.15 | 0.09 |
| HZQ-7-3-Sph - 6 | Sph-II | 302664.45 | 9.75 | 9917.01 | 0.02 | 0.12 | 1.48 | 640600 | 0.03 | 0.09 |
| HZQ-7-3-Sph - 7 | Sph-II | 302562.9 | 9.39 | 9631.88 | 0.02 | 0.12 | 2.11 | 640600 | 0.06 | 0.09 |
| HZQ-7-3-Sph - 8 | Sph-II | 301523.99 | 9.73 | 9719.32 | 0.02 | 0.11 | 63.54 | 640600 | 3.88 | 27.38 |
| HZQ-7-3-Sph - 9 | Sph-II | 301679.66 | 9.33 | 9314.73 | 0.02 | 0.1 | 2.29 | 640600 | 0.03 | 0.12 |
| HZQ-7-3-Sph - 10 | Sph-II | 303050.39 | 8.08 | 8706.01 | 0.03 | 0.13 | 91.71 | 640600 | 8.67 | 38.44 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample number** | **Types** | **As75** | **Ag107** | **Cd111** | **In115** | **Sn118** | **Sb121** | **Hg202** | **Tl205** | **Pb208** | **Bi209** |
| HZQ7-8-1 | Sph-I | 0.4 | 24.25 | 943.81 | 0.04 | 2.68 | 13.5 | 123.255 | 0.55 | 32.47 | 0.01 |
| HZQ7-8-2 | Sph-I | 0.72 | 5.12 | 724.17 | 0.56 | 1.17 | 0.8 | 275.8 | 0.01 | 2.78 | 0.02 |
| HZQ7-8-3 | Sph-I | 0.89 | 27.265 | 898.71 | 0.19 | 3 | 9.99 | 270.485 | 0.13 | 40.78 | 0.02 |
| HZQ7-8-4 | Sph-I | 0.42 | 40.395 | 1018.61 | 0.24 | 5.53 | 15.62 | 224.505 | 0.05 | 28.53 | 0.01 |
| HZQ7-8-5 | Sph-I | 0.84 | 12.71 | 808.88 | 0.21 | 1.58 | 7.17 | 276.32 | 0.01 | 12.8 | 0.01 |
| HZQ11d-6 | Sph-I | 7.32 | 106.28 | 1097.89 | 0.01 | 0.67 | 133.84 | 130.085 | 0.04 | 128.39 | 0.02 |
| HZQ11d-7 | Sph-I | 0.78 | 523.255 | 810.13 | 0.01 | 0.54 | 38.73 | 162.01 | 0.03 | 176.31 | 0.02 |
| HZQ11d-8 | Sph-I | 0.8 | 368.785 | 872.38 | 0.01 | 0.21 | 11.26 | 161.655 | 0.02 | 80.64 | 0.01 |
| HZQ11d-9 | Sph-I | 2 | 461.95 | 893.42 | 0.01 | 0.36 | 49.14 | 127.96 | 0.06 | 153.83 | 0.02 |
| HZQ11d-10 | Sph-I | 23.27 | 154.555 | 956.57 | 0.13 | 0.76 | 61.95 | 426.595 | 0.05 | 414.72 | 0.05 |
| HZQ13-6-1 | Sph-I | 89.59 | 44.6 | 888.86 | 1.17 | 0.88 | 22.29 | 581.565 | 0.03 | 39.17 | 0.04 |
| HZQ13-6-2 | Sph-I | 399.58 | 49.45 | 797.29 | 0.42 | 0.84 | 17.9 | 443.81 | 0.04 | 26.97 | 0.03 |
| HZQ13-6-3 | Sph-I | 1420.21 | 39.135 | 892.25 | 0.77 | 1.4 | 41.42 | 772.67 | 0.07 | 65.32 | 0.08 |
| HZQ13-6-3 | Sph-I | 1134.94 | 42.63 | 958.58 | 0.27 | 1.34 | 30.94 | 650.57 | 0.05 | 45.23 | 0.08 |
| HZQ13-6-4 | Sph-I | 4.49 | 147.28 | 889.42 | 0.31 | 0.46 | 69.39 | 570.035 | 0.09 | 82.49 | 0.05 |
| HZQ13-6-5 | Sph-I | 3.29 | 37.285 | 822.4 | 0.01 | 0.22 | 10.83 | 306.2 | 0.02 | 12.26 | 0.02 |
| HZQ13-6-6 | Sph-I | 1.98 | 71.79 | 807.92 | 0.01 | 0.32 | 5.12 | 309.11 | 0.03 | 4.25 | 0.02 |
| HZQ13-6-7 | Sph-I | 2.95 | 33.065 | 795.39 | 0.01 | 0.17 | 3.86 | 362.59 | 0.02 | 9.77 | 0.02 |
| HZQ13-6-8 | Sph-I | 5.55 | 64.005 | 1089.15 | 0.03 | 0.31 | 11.14 | 1275.795 | 0.03 | 11.38 | 0.04 |
| HZQ13-6-9 | Sph-I | 4.11 | 41.805 | 786.38 | 0.02 | 0.24 | 3.58 | 956.77 | 0.03 | 4.67 | 0.03 |
| HZQ-3-1-7 | Sph-I | 321.68 | 14.87 | 862.16 | 14.75 | 13.61 | 142.81 | 5599.445 | 0.06 | 9.48 | 0.04 |
| HZQ-3-1-8 | Sph-I | 265.03 | 21 | 950.06 | 9.96 | 9.23 | 149.34 | 4675.96 | 0.06 | 15.23 | 0.03 |
| HZQ-3-1-9 | Sph-I | 13.53 | 9.74 | 1321.08 | 0.02 | 0.3 | 14.62 | 5373.09 | 0.07 | 11.79 | 0.03 |
| HZQ-3-1-10 | Sph-I | 8.68 | 5.995 | 1110.03 | 2.51 | 3.07 | 7.6 | 3335.395 | 0.04 | 5.49 | 0.03 |
| HZ13-11-1 | Sph-I | 7279.91 | 92.6 | 870.97 | 0.11 | 0.85 | 45.75 | 254.9 | 0.2 | 484.06 | 0.06 |
| HZ13-11-1 | Sph-I | 7022.82 | 47.795 | 1065.14 | 0.15 | 0.92 | 30.69 | 274.82 | 0.11 | 249.61 | 0.09 |
| HZ13-11-6 | Sph-I | 2.14 | 3.2 | 825.47 | 0.48 | 0.23 | 0.51 | 254.895 | 0.06 | 0.56 | 0.02 |
| HZ13-11-7 | Sph-I | 1.79 | 5.59 | 817.82 | 0.78 | 0.3 | 1.73 | 224.235 | 0.05 | 1.68 | 0.02 |
| HZ13-11-8 | Sph-I | 1.64 | 4.33 | 919.52 | 0.07 | 0.28 | 0.63 | 235.845 | 0.05 | 1.39 | 0.03 |
| HZ13-11-9 | Sph-I | 1.15 | 4.91 | 812.74 | 0.39 | 0.49 | 3.26 | 179.025 | 0.05 | 4.97 | 0.03 |
| HZ13-11-10 | Sph-I | 1.13 | 2.275 | 849.06 | 0.31 | 0.22 | 0.3 | 182.03 | 0.08 | 0.37 | 0.03 |
| HZQ-5-7-6 | Sph-I | 0.3 | 29.8 | 1357.5 | 0.0 | 0.4 | 2.9 | 91.1 | 0.0 | 0.0 | 0.003434 |
| HZQ-5-7-7 | Sph-I | 21.7 | 42.1 | 1475.9 | 0.0 | 0.2 | 20.1 | 111.5 | 0.0 | 0.0 | 0.003740 |
| HZQ-5-7-8 | Sph-I | 3765.4 | 149.5 | 884.4 | 0.2 | 0.0 | 415.9 | 178.8 | 0.0 | 0.0 | 0.043631 |
| HZQ-5-7-9 | Sph-I | 42.2 | 9.2 | 1692.3 | 0.2 | 0.1 | 20.0 | 163.5 | 0.0 | 0.0 | 0.004295 |
| HZQ-5-7-10 | Sph-I | 29.7 | 32.1 | 1774.1 | 0.5 | 0.5 | 30.5 | 291.2 | 0.0 | 0.0 | 0.010432 |
| HZQ-5-2-1 | Sph-I | 0.4 | 15.2 | 1272.0 | 1.3 | 0.2 | 1.1 | 77.0 | 0.0 | 0.0 | 0.0000 |
| HZQ-5-2-2 | Sph-I | 0.2 | 8.1 | 1006.6 | 8.9 | 0.1 | 0.0 | 96.4 | 0.0 | 0.0 | 0.0199 |
| HZQ-5-2-3 | Sph-I | 0.2 | 4.5 | 1015.5 | 33.9 | 0.2 | 0.1 | 117.0 | 0.0 | 0.0 | 0.0005 |
| HZQ-5-2-4 | Sph-I | 0.1 | 3.1 | 983.9 | 31.7 | 0.0 | 0.4 | 129.5 | 0.0 | 0.0 | 0.0181 |
| HZQ-5-2-5 | Sph-I | 0.8 | 61.9 | 1085.3 | 38.1 | 0.3 | 8.6 | 181.5 | 0.0 | 0.0 | 0.0000 |
| HZQ-5-2-6 | Sph-I | 0.9 | 1.6 | 977.3 | 28.3 | 0.1 | 0.2 | 148.4 | 0.0 | 0.0 | 0.0388 |
| HZQ-5-2-7 | Sph-I | 0.5 | 9.6 | 968.5 | 0.5 | 15.5 | 3.1 | 191.5 | 0.0 | 0.0 | 0.0000 |
| HZQ-5-2-8 | Sph-I | 0.0 | 11.9 | 1016.4 | 0.2 | 6.7 | 1.1 | 159.1 | 0.0 | 0.0 | 0.0105 |
| HZQ-5-2-9 | Sph-I | 0.0 | 32.6 | 1035.0 | 0.0 | 0.8 | 4.1 | 115.7 | 0.0 | 0.0 | 0.0000 |
| HZQ-5-2-10 | Sph-I | 1.6 | 8.0 | 1122.6 | 0.0 | 0.7 | 2.0 | 130.0 | 0.0 | 0.0 | 0.0000 |
| HZQ-5b-7-6 | Sph-I | 4.3 | 50.1 | 1071.1 | 3.8 | 1.2 | 7.2 | 268.3 | 0.0 | 0.0 | 0.0000 |
| HZQ-5b-7-7 | Sph-I | 3.2 | 20.8 | 1003.0 | 2.4 | 1.1 | 10.0 | 331.2 | 0.0 | 0.0 | 0.0000 |
| HZQ-5b-7-8 | Sph-I | 40.9 | 145.6 | 1093.9 | 6.0 | 0.9 | 120.6 | 208.6 | 0.0 | 0.0 | 0.0137 |
| HZQ-5b-7-9 | Sph-I | 0.0 | 9.8 | 1623.5 | 0.0 | 0.9 | 21.0 | 101.2 | 0.0 | 0.0 | 0.0043 |
| HZQ-5b-7-10 | Sph-I | 1.8 | 22.5 | 979.3 | 7.0 | 1.2 | 1.6 | 226.4 | 0.0 | 0.0 | 0.0114 |
| HZQ-11a-7 | Sph-I | 0.2 | 11.3 | 1502.2 | 0.0 | 0.2 | 10.0 | 81.8 | 0.0 | 0.0 | 0.0000 |
| HZQ-11a-8 | Sph-I | 0.0 | 15.7 | 1464.8 | 0.0 | 0.4 | 0.2 | 103.8 | 0.0 | 0.0 | 0.0035 |
| HZQ-11a-9 | Sph-I | 0.0 | 37.3 | 1639.7 | 0.0 | 0.3 | 12.0 | 153.7 | 0.0 | 0.0 | 0.0138 |
| HZQ-11a-10 | Sph-I | 0.0 | 23.4 | 1507.7 | 0.0 | 0.2 | 5.8 | 118.4 | 0.0 | 0.0 | 0.0384 |
| HZQ-11c-6 | Sph-I | 3.1 | 26.7 | 1132.9 | 0.0 | 1.2 | 38.6 | 128.7 | 0.0 | 0.0 | 0.0397 |
| HZQ-11c-7 | Sph-I | 3.4 | 24.6 | 1191.8 | 0.0 | 1.1 | 40.5 | 154.8 | 0.0 | 0.0 | 0.0157 |
| HZQ-11c-8 | Sph-I | 1.8 | 23.0 | 1124.7 | 0.0 | 0.4 | 27.0 | 160.6 | 0.0 | 0.0 | 0.0000 |
| HZQ-11c-9 | Sph-I | 6.7 | 78.5 | 1115.2 | 0.0 | 1.1 | 60.5 | 157.3 | 0.0 | 0.0 | 0.0061 |
| HZQ-11c-10 | Sph-I | 0.8 | 53.4 | 1770.9 | 0.0 | 0.1 | 10.4 | 161.7 | 0.0 | 0.0 | 0.0030 |
| HZQ-13-10-1 | Sph-I | 0.6 | 11.1 | 1767.6 | 0.3 | 1.5 | 7.7 | 189.8 | 0.0 | 0.0 | 0.0014 |
| HZQ-13-10-2 | Sph-I | 7.6 | 8.1 | 1237.7 | 0.0 | 0.2 | 6.8 | 187.4 | 0.0 | 0.0 | 0.052 |
| HZQ-13-10-3 | Sph-I | 37.1 | 6.5 | 1108.0 | 2.3 | 0.2 | 43.8 | 366.0 | 0.0 | 0.0 | 0.00 |
| HZQ-13-10-4 | Sph-I | 54.7 | 10.4 | 1420.4 | 0.6 | 0.0 | 60.3 | 412.0 | 0.0 | 0.0 | 0.00 |
| HZQ-13-10-5 | Sph-I | 0.3 | 5.5 | 1170.7 | 0.7 | 0.4 | 1.5 | 239.1 | 0.0 | 0.0 | 0.017 |
| HZQ-13-10-6 | Sph-I | 30.0 | 22.1 | 1077.4 | 2.5 | 7.4 | 10.3 | 336.8 | 0.0 | 0.0 | 0.00 |
| HZQ-13-10-7 | Sph-I | 0.6 | 11.8 | 773.5 | 7.1 | 0.2 | 5.4 | 141.7 | 0.0 | 0.0 | 0.010 |
| HZQ-13-10-8 | Sph-I | 0.7 | 49.4 | 1116.9 | 0.0 | 0.3 | 7.7 | 127.2 | 0.0 | 0.0 | 0.00 |
| HZQ-13-10-9 | Sph-I | 0.2 | 25.5 | 1063.8 | 1.5 | 1.4 | 4.7 | 239.9 | 0.0 | 0.0 | 0.00 |
| HZQ-13-10-10 | Sph-I | 0.0 | 18.3 | 784.4 | 0.6 | 0.2 | 10.8 | 145.8 | 0.0 | 0.0 | 0.00 |
| HZQ-13-16-1 | Sph-I | 94.01 | 35.16 | 1018.69 | 0.65 | 1.48 | 537.65 | 255.57 | 0.00 | 0.00 | 0.00 |
| HZQ-13-16-3 | Sph-I | 6.41 | 47.22 | 1062.74 | 0.09 | 0.94 | 33.20 | 158.74 | 0.00 | 0.00 | 0.00 |
| HZQ-13-16-4 | Sph-I | 0.32 | 50.58 | 1128.80 | 0.05 | 1.59 | 31.10 | 135.05 | 0.00 | 0.00 | 0.022 |
| HZQ-13-16-5 | Sph-I | 1.48 | 3.75 | 879.14 | 4.70 | 16.95 | 1.80 | 349.17 | 0.00 | 0.00 | 0.014 |
| HZQ-13-16-6 | Sph-I | 0.32 | 36.48 | 751.40 | 2.31 | 0.27 | 25.50 | 291.67 | 0.00 | 0.00 | 0.00 |
| HZQ-13-16-7 | Sph-I | 0.30 | 4.95 | 811.66 | 0.82 | 0.23 | 0.80 | 120.54 | 0.00 | 0.00 | 0.021 |
| HZQ-13-16-8 | Sph-I | 0.00 | 8.60 | 1198.43 | 0.26 | 2.30 | 10.09 | 143.54 | 0.00 | 0.00 | 0.0057 |
| HZQ-13-16-9 | Sph-I | 0.00 | 4.57 | 694.98 | 6.15 | 0.12 | 0.46 | 111.09 | 0.00 | 0.00 | 0.021 |
| HZQ-13-16-10 | Sph-I | 0.60 | 9.48 | 1026.26 | 0.07 | 1.41 | 1.38 | 125.81 | 0.00 | 0.00 | 0.016 |
| HZQ-3-3-Sph - 1 | Sph-II | 0.37 | 6.79 | 1222.42 | 0.01 | 0.43 | 4.19 | 663.94 | 0.01 | 2.14 | 0.01 |
| HZQ-3-3-Sph - 2 | Sph-II | 6.7 | 8.28 | 629.16 | 1.71 | 0.47 | 17.32 | 493.43 | 0.01 | 2.37 | 0.01 |
| HZQ-3-3-Sph - 3 | Sph-II | 0.18 | 1.65 | 906.64 | 0.11 | 0.25 | 0.07 | 694.84 | 0.01 | 0.05 | 0.01 |
| HZQ-3-3-Sph - 4 | Sph-II | 112.4 | 28.57 | 900.91 | 0.62 | 5.73 | 61.35 | 119.16 | 0.01 | 5.35 | 0.01 |
| HZQ-3-3-Sph - 5 | Sph-II | 0.44 | 5.21 | 1082.27 | 1.38 | 3.44 | 0.96 | 705.97 | 0.01 | 1.58 | 0.01 |
| HZQ-3-3-Sph - 6 | Sph-II | 0.16 | 0.56 | 994.94 | 0.63 | 5.06 | 0.03 | 743.58 | 0.01 | 0.06 | 0.01 |
| HZQ-3-3-Sph - 7 | Sph-II | 0.15 | 6.02 | 843.83 | 7.08 | 17.36 | 0.12 | 662.85 | 0.01 | 1.34 | 0.01 |
| HZQ-3-3-Sph - 8 | Sph-II | 0.14 | 13.17 | 838.45 | 6.47 | 11.92 | 0.9 | 668.46 | 0.02 | 1.97 | 0.01 |
| HZQ-3-3-Sph - 9 | Sph-II | 0.16 | 3.62 | 983.91 | 0.84 | 3.64 | 0.54 | 707.32 | 0.01 | 0.97 | 0.01 |
| HZQ-3-3-Sph - 10 | Sph-II | 42.98 | 49.25 | 1608.48 | 0.03 | 0.45 | 118.21 | 740.47 | 0.02 | 24.13 | 0.01 |
| HZQ-4-1-Sph - 1 | Sph-II | 0.13 | 1.17 | 824.3 | 0 | 0.06 | 0.02 | 13.61 | 0.01 | 0.01 | 0.01 |
| HZQ-4-1-Sph - 2 | Sph-II | 0.13 | 2.51 | 743.79 | 0 | 0.06 | 0.02 | 30.09 | 0.01 | 0.01 | 0.01 |
| HZQ-4-1-Sph - 3 | Sph-II | 0.13 | 5.95 | 776.84 | 0 | 0.16 | 0.56 | 22.31 | 0.01 | 1.45 | 0.01 |
| HZQ-4-1-Sph - 4 | Sph-II | 0.13 | 1.68 | 804.73 | 0.01 | 0.24 | 0.02 | 21.08 | 0.01 | 0.04 | 0.01 |
| HZQ-4-1-Sph - 5 | Sph-II | 0.12 | 1.45 | 849.96 | 0.01 | 0.06 | 0.48 | 26.99 | 0.01 | 0.66 | 0.01 |
| HZQ-4-1-Sph - 6 | Sph-II | 0.2 | 16.79 | 770.16 | 0 | 0.06 | 2.78 | 24.59 | 0.01 | 5.14 | 0.01 |
| HZQ-4-1-Sph - 7 | Sph-II | 0.11 | 3.94 | 869.68 | 0 | 0.06 | 0.04 | 27.37 | 0.01 | 0.21 | 0.01 |
| HZQ-4-1-Sph - 8 | Sph-II | 0.09 | 2.48 | 774.35 | 0 | 0.15 | 0.02 | 27.21 | 0.01 | 0.03 | 0.01 |
| HZQ-4-1-Sph - 9 | Sph-II | 0.11 | 3.05 | 777.87 | 0 | 0.06 | 0.02 | 26.4 | 0.01 | 0.08 | 0.01 |
| HZQ-4-1-Sph - 10 | Sph-II | 0.13 | 2.53 | 771.55 | 0.01 | 0.75 | 0.06 | 21.04 | 0.01 | 0.4 | 0.01 |
| HZQ-5-9-Sph - 1 | Sph-II | 0.9 | 18.54 | 761.72 | 0.22 | 0.2 | 13.97 | 60.62 | 0.02 | 13.42 | 0.01 |
| HZQ-5-9-Sph - 2 | Sph-II | 1.7 | 16.92 | 677.93 | 0.01 | 0.07 | 13.76 | 45.06 | 0.02 | 7.43 | 0.01 |
| HZQ-5-9-Sph - 3 | Sph-II | 0.11 | 17.28 | 656.32 | 0.05 | 0.07 | 2.13 | 43.05 | 0.02 | 9.65 | 0.01 |
| HZQ-5-9-Sph - 4 | Sph-II | 4.44 | 10.6 | 662.75 | 9.43 | 0.17 | 4.93 | 32.64 | 0.04 | 17.46 | 0.01 |
| HZQ-5-9-Sph - 5 | Sph-II | 0.17 | 11.86 | 710.54 | 0.04 | 0.1 | 3.5 | 49.11 | 0.03 | 11.46 | 0.01 |
| HZQ-5-9-Sph - 6 | Sph-II | 0.14 | 13.11 | 697.29 | 0.39 | 9.63 | 3.9 | 31.67 | 0.02 | 6.33 | 0.01 |
| HZQ-5-9-Sph - 7 | Sph-II | 2.89 | 5.86 | 692.33 | 0.66 | 0.98 | 5.64 | 31.28 | 0.02 | 5.76 | 0.01 |
| HZQ-5-9-Sph - 8 | Sph-II | 0.11 | 20 | 739.19 | 0.09 | 1.7 | 5.95 | 29.48 | 0.03 | 12.27 | 0.01 |
| HZQ-5-9-Sph - 9 | Sph-II | 0.76 | 37.64 | 708.65 | 0.09 | 1.03 | 11.47 | 58.58 | 0.05 | 52.06 | 0.01 |
| HZQ-5-9-Sph - 10 | Sph-II | 0.71 | 19.9 | 694.15 | 0.06 | 0.3 | 10.31 | 37.34 | 0.04 | 27.54 | 0.01 |
| HZQ-7-3-Sph - 1 | Sph-II | 0.14 | 10.72 | 764.67 | 0.01 | 0.06 | 1.91 | 12.76 | 0.01 | 3.48 | 0.01 |
| HZQ-7-3-Sph - 2 | Sph-II | 0.13 | 0.85 | 829.89 | 0 | 0.07 | 0.02 | 18.14 | 0.01 | 0.02 | 0.01 |
| HZQ-7-3-Sph - 3 | Sph-II | 0.13 | 1.12 | 728.2 | 0 | 0.07 | 0.02 | 18.87 | 0.01 | 0.06 | 0.01 |
| HZQ-7-3-Sph - 4 | Sph-II | 0.14 | 1.21 | 731.14 | 0 | 0.33 | 0.11 | 16.52 | 0.01 | 0.17 | 0.01 |
| HZQ-7-3-Sph - 5 | Sph-II | 0.12 | 1.02 | 871.46 | 0 | 0.06 | 0.02 | 22.1 | 0.01 | 0.02 | 0.01 |
| HZQ-7-3-Sph - 6 | Sph-II | 0.12 | 1.5 | 923.72 | 0 | 0.06 | 0.02 | 21.21 | 0.01 | 0.02 | 0.01 |
| HZQ-7-3-Sph - 7 | Sph-II | 0.11 | 2.37 | 835.76 | 0 | 0.06 | 0.03 | 21.49 | 0.01 | 0.02 | 0.01 |
| HZQ-7-3-Sph - 8 | Sph-II | 0.11 | 3.45 | 765.13 | 0.01 | 0.37 | 0.08 | 24.52 | 0.01 | 0.13 | 0.01 |
| HZQ-7-3-Sph - 9 | Sph-II | 0.11 | 2.5 | 942.48 | 0 | 0.06 | 0.02 | 20.76 | 0.01 | 0.02 | 0.01 |
| HZQ-7-3-Sph - 10 | Sph-II | 0.09 | 3.51 | 778.72 | 0 | 0.8 | 0.08 | 19.24 | 0.01 | 0.59 | 0.01 |