**Table S5:** EDS measurements of element concentrations (wt %) in the Sparta fault scarp at Anogia from the sample located at 1.1.m on the element profile (Fig. 1).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Spot** | **O** | **Ca** | **C** | **Si** | **Al** | **K** | **Mg** | **F** | **Fe** | **Ti** | **Y** | **Hg** | **S** | **Cl** | **P** | **Na** | **Yb** | **Co** | **Ni** | **Ba** | **Mn** |
| Spectrum 27 | 49.8 |  | 12.0 | 38.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 28 | 38.9 | 46.8 | 14.0 |  |  |  | 0.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 29 | 37.2 | 47.6 | 13.6 | 0.8 | 0.4 | 0.3 | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 30 | 38.0 | 48.9 | 13.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 31 | 49.5 | 0.2 | 11.8 | 37.7 |  |  |  |  |  |  |  | 0.9 |  |  |  |  |  |  |  |  |  |
| Spectrum 35 | 49.5 | 0.5 | 12.2 | 37.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 36 | 46.5 | 14.0 | 13.5 | 12.6 | 6.9 | 3.0 | 1.8 | 1.0 | 0.6 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 37 | 42.9 | 2.3 | 13.8 | 20.9 | 10.2 | 5.8 | 2.6 | 1.1 | 0.3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 38 | 41.6 | 43.1 | 15.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 39 | 42.7 | 38.3 | 19.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 40 | 39.1 | 46.8 | 14.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 41 | 35.8 | 25.2 | 23.4 | 8.0 | 4.1 | 2.0 | 1.0 | 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 42 | 35.1 | 49.2 | 15.6 | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 43 | 43.1 | 26.3 | 18.9 | 6.1 | 4.0 | 1.0 | 0.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 44 | 38.0 | 44.0 | 16.4 | 0.3 | 0.1 |  | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 45 | 41.1 | 42.4 | 16.1 | 0.2 |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 46 | 36.5 | 35.0 | 21.4 | 3.7 | 1.5 | 1.0 | 0.5 |  |  | 0.3 |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 47 | 44.9 | 40.3 | 14.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 48 | 39.2 | 46.0 | 14.6 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 49 | 38.6 | 44.3 | 16.7 | 0.2 |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 50 | 34.6 | 40.8 | 18.5 | 1.2 | 0.3 |  | 0.2 |  | 1.6 | 2.8 |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 51 | 39.1 | 40.6 | 16.6 | 1.9 | 0.9 | 0.7 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 52 | 11.7 | 14.7 | 69.9 | 2.0 | 0.8 | 0.4 | 0.2 |  |  |  |  |  |  | 0.3 |  |  |  |  |  |  |  |
| Spectrum 53 | 12.5 | 8.3 | 77.0 | 1.1 | 0.5 | 0.2 |  |  |  |  |  |  |  | 0.4 |  |  |  |  |  |  |  |
| Spectrum 54 | 34.6 | 33.3 | 11.5 | 0.4 | 0.2 |  |  | 4.6 |  |  |  |  |  |  | 15.2 |  |  |  |  |  |  |
| Spectrum 55 | 31.2 | 22.0 | 31.4 | 1.4 | 0.9 | 0.3 | 0.1 | 2.9 |  |  |  |  |  |  | 9.7 |  |  |  |  |  |  |
| Spectrum 56 | 47.3 | 0.2 | 13.8 | 37.9 |  |  |  |  |  |  |  | 0.7 |  |  |  |  |  |  |  |  |  |
| Spectrum 57 | 48.4 | 0.2 | 12.7 | 38.0 |  |  |  |  |  |  |  | 0.7 |  |  |  |  |  |  |  |  |  |
| Spectrum 58 | 48.0 | 0.2 | 13.1 | 37.7 |  |  |  |  |  |  |  | 0.7 |  |  |  |  |  |  |  |  |  |
| Spectrum 59 | 48.6 | 0.3 | 13.0 | 38.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 60 | 48.7 | 0.9 | 12.9 | 37.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 61 | 48.1 | 0.3 | 13.5 | 37.5 |  |  |  |  |  |  |  | 0.7 |  |  |  |  |  |  |  |  |  |
| Spectrum 62 | 48.7 | 0.6 | 13.2 | 36.8 |  |  |  |  |  |  |  | 0.7 |  |  |  |  |  |  |  |  |  |
| Spectrum 63 | 48.8 | 0.5 | 13.2 | 37.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 64 | 49.2 | 6.2 | 16.2 | 27.3 | 0.7 | 0.3 | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 65 | 30.3 | 23.3 | 32.9 | 8.1 | 3.0 | 1.7 | 0.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 66 | 23.2 | 13.2 | 43.6 | 9.8 | 4.9 | 3.5 | 1.1 |  | 0.5 |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 67 | 37.4 | 21.1 | 26.1 | 7.7 | 4.1 | 1.7 | 1.0 | 0.5 | 0.3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 68 | 26.2 | 19.6 | 37.7 | 8.6 | 4.3 | 2.1 | 0.8 | 0.3 | 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 69 | 38.2 | 26.0 | 23.3 | 6.3 | 3.9 | 1.6 | 0.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 70 | 43.1 | 41.4 | 15.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 71 | 20.5 | 9.6 | 44.6 | 12.7 | 6.2 | 4.8 | 1.3 |  | 0.3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 72 | 31.1 | 10.0 | 34.1 | 22.2 | 1.5 | 0.7 | 0.2 |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 73 | 28.3 | 3.0 | 40.2 | 27.4 | 0.7 | 0.2 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 74 | 28.9 | 29.4 | 35.5 | 4.6 | 0.7 | 0.2 | 0.2 |  |  |  |  |  |  | 0.1 | 0.5 |  |  |  |  |  |  |
| Spectrum 75 | 31.6 | 10.0 | 35.2 | 19.5 | 2.2 | 1.0 | 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 76 | 20.4 | 1.6 | 53.1 | 24.7 |  |  |  |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 77 | 34.9 | 10.3 | 33.2 | 17.5 | 2.7 | 0.9 | 0.4 |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |
| Spectrum 78 | 27.7 | 5.2 | 43.6 | 22.2 | 0.7 | 0.3 | 0.1 |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 79 | 28.8 | 5.0 | 37.3 | 28.0 | 0.6 | 0.2 |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |
| Spectrum 80 | 32.5 | 15.4 | 34.3 | 11.6 | 3.3 | 2.1 | 0.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 81 | 30.0 | 17.0 | 36.6 | 10.9 | 3.2 | 1.4 | 0.5 |  | 0.3 |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 82 | 31.0 | 19.3 | 29.1 | 11.6 | 4.9 | 2.4 | 0.7 | 0.3 | 0.5 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 83 | 13.2 | 0.2 | 85.5 |  |  |  |  |  |  |  |  |  |  | 1.1 |  |  |  |  |  |  |  |
| Spectrum 84 | 8.3 | 0.7 | 88.7 |  |  |  |  |  |  |  |  |  |  | 2.3 |  |  |  |  |  |  |  |
| Spectrum 85 | 45.7 | 0.3 | 10.6 | 26.5 | 8.7 |  |  |  |  |  |  | 0.6 |  |  |  | 7.6 |  |  |  |  |  |
| Spectrum 86 | 22.5 | 1.7 | 74.3 |  | 0.1 |  |  |  | 0.7 |  |  |  |  | 0.6 |  |  |  |  |  |  |  |
| Spectrum 87 | 12.6 | 10.3 | 76.4 | 0.5 | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 88 | 37.9 | 11.1 | 13.8 | 0.6 | 1.7 |  |  |  | 34.5 |  |  |  |  |  | 0.3 |  |  |  |  |  |  |
| Spectrum 89 | 24.7 | 14.1 | 57.5 | 1.0 | 0.5 |  |  |  | 0.6 |  |  |  |  |  | 0.1 |  |  |  |  |  | 1.4 |
| Spectrum 90 | 45.2 | 36.5 | 18.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 91 | 47.1 | 26.5 | 13.8 | 6.0 | 3.8 | 1.4 | 0.8 | 0.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 92 | 36.8 | 25.6 | 25.4 | 6.2 | 2.6 | 1.7 | 0.7 | 0.8 |  |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 93 | 41.8 | 36.8 | 21.1 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 94 | 42.2 |  | 12.8 | 21.3 | 10.8 | 7.1 | 3.6 | 2.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 95 | 41.1 | 0.5 | 14.9 | 20.3 | 10.4 | 6.6 | 3.4 | 1.8 | 1.0 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 96 | 37.2 | 1.2 | 10.3 | 1.0 | 0.6 |  |  |  | 48.3 |  |  |  |  |  | 0.2 |  |  | 1.2 |  |  |  |
| Spectrum 97 | 45.2 | 38.2 | 16.5 |  |  |  | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 98 | 42.8 |  | 13.0 | 21.0 | 10.5 | 6.7 | 3.5 | 2.0 | 0.6 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 99 | 24.1 | 18.8 | 54.5 | 1.4 | 0.1 |  |  | 1.0 |  |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 100 | 20.5 | 3.7 | 63.7 | 0.2 | 1.4 |  | 0.2 |  | 9.6 |  |  |  |  | 0.4 | 0.3 |  |  |  |  |  |  |
| Spectrum 101 | 12.0 | 4.5 | 82.7 | 0.4 | 0.1 |  |  |  | 0.3 |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 102 | 44.3 | 37.9 | 17.2 | 0.4 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 103 | 41.9 | 1.5 | 14.3 | 20.4 | 10.1 | 6.6 | 3.2 | 1.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 104 | 44.6 | 39.0 | 16.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 105 | 45.0 | 36.4 | 18.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 106 | 24.8 | 7.4 | 46.9 | 0.4 | 0.9 |  |  |  | 19.0 |  |  |  |  | 0.4 | 0.2 |  |  |  |  |  |  |
| Spectrum 107 | 16.6 | 15.9 | 64.5 | 0.5 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 108 | 39.5 | 19.7 | 18.4 | 0.7 | 0.3 |  |  |  | 21.3 |  |  |  |  |  | 0.1 |  |  |  |  |  |  |
| Spectrum 109 | 43.3 | 40.3 | 16.2 |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 110 | 43.0 | 39.7 | 16.3 |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.0 |  |  |  |  |
| Spectrum 111 | 15.4 | 0.2 | 83.9 |  |  |  |  |  |  |  |  |  |  | 0.5 |  |  |  |  |  |  |  |
| Spectrum 112 | 24.9 | 16.3 | 56.9 | 1.2 | 0.2 |  |  |  | 0.3 |  |  |  |  | 0.2 |  |  |  |  |  |  |  |
| Spectrum 113 | 21.4 | 11.4 | 65.6 | 1.2 | 0.1 |  |  |  |  |  |  |  |  | 0.1 |  | 0.2 |  |  |  |  |  |
| Spectrum 114 | 36.6 | 1.5 | 10.5 | 1.1 | 0.8 |  |  |  | 48.4 |  |  |  |  |  | 0.3 |  |  | 0.9 |  |  |  |
| Spectrum 115 | 42.1 | 42.3 | 15.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 116 | 41.5 | 43.2 | 15.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 117 | 42.1 | 42.6 | 15.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 118 | 41.3 | 43.1 | 15.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 119 | 40.4 | 38.2 | 16.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 120 | 42.4 | 42.0 | 15.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 121 | 44.4 | 40.0 | 15.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 122 | 43.0 | 41.4 | 15.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 123 | 41.0 | 43.6 | 15.3 |  |  |  | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 124 | 41.3 | 43.4 | 15.1 |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 125 | 41.4 | 43.1 | 15.2 |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 126 | 42.0 | 42.5 | 15.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 127 | 42.5 | 41.8 | 15.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 128 | 42.0 | 42.2 | 15.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 129 | 42.7 | 41.3 | 15.8 |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 130 | 42.3 | 41.9 | 15.6 |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 131 | 29.8 | 23.9 | 44.0 | 0.8 | 0.2 |  |  |  | 0.9 |  |  |  |  | 0.1 | 0.1 | 0.2 |  |  |  |  |  |
| Spectrum 132 | 22.5 | 11.4 | 40.1 | 0.4 | 1.9 |  |  |  | 22.8 |  |  |  |  | 0.4 | 0.5 |  |  |  |  |  |  |
| Spectrum 133 | 30.0 | 30.2 | 27.9 | 0.1 | 0.9 |  |  |  | 10.6 |  |  |  |  | 0.2 | 0.2 |  |  |  |  |  |  |
| Spectrum 134 | 20.1 | 2.4 | 57.2 | 0.4 | 2.3 |  |  |  | 16.8 |  |  |  |  | 0.4 | 0.4 |  |  |  |  |  |  |
| Spectrum 135 | 16.4 | 15.0 | 67.1 | 0.8 | 0.2 |  |  |  | 0.5 |  |  |  |  |  |  | 0.1 |  |  |  |  |  |
| Spectrum 136 | 34.8 | 43.3 | 19.1 | 0.4 | 0.2 |  |  |  | 2.1 |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 137 | 24.5 | 18.7 | 54.3 | 1.7 | 0.1 |  |  |  |  |  |  |  |  | 0.3 |  | 0.3 |  |  |  |  |  |
| Spectrum 138 | 30.4 | 20.2 | 46.5 | 1.5 | 0.2 |  |  |  | 0.9 |  |  |  |  | 0.3 |  |  |  |  |  |  |  |
| Spectrum 139 | 43.3 | 3.4 | 14.1 | 19.3 | 9.7 | 5.6 | 2.9 | 1.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 140 | 42.1 | 39.1 | 18.4 | 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 141 | 42.5 | 41.5 | 16.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 142 | 39.4 | 46.8 | 13.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 143 | 40.2 | 39.6 | 20.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 144 | 39.9 | 39.9 | 19.4 | 0.3 |  |  |  |  | 0.3 |  |  |  |  |  |  |  |  |  |  |  | 0.2 |
| Spectrum 145 | 10.4 | 8.9 | 80.5 | 0.2 | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 146 | 6.5 | 2.2 | 90.7 | 0.2 |  |  |  |  | 0.2 |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 147 | 31.6 | 54.0 | 13.6 | 0.5 | 0.3 |  |  |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |
| Spectrum 148 | 28.3 | 44.6 | 22.7 | 1.0 | 0.8 |  | 0.1 |  | 2.4 |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 149 | 37.6 | 40.9 | 15.5 | 1.2 | 1.0 |  | 0.2 |  | 3.5 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 150 | 32.2 | 48.0 | 17.2 | 0.8 | 0.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 151 | 43.9 | 0.7 | 9.3 | 22.9 | 11.2 | 6.0 | 3.2 | 2.4 | 0.3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 152 | 42.3 | 1.6 | 10.2 | 23.1 | 11.5 | 6.7 | 3.0 | 1.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 153 | 36.1 | 34.7 | 27.0 | 0.8 | 0.6 |  |  | 0.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 154 | 34.7 | 49.0 | 15.5 | 0.4 | 0.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 155 | 27.6 | 43.2 | 25.2 | 1.8 | 1.1 | 0.3 | 0.2 |  | 0.4 |  |  |  |  | 0.2 |  |  |  |  |  |  |  |
| Spectrum 156 | 37.3 | 48.3 | 13.5 | 0.1 | 0.1 |  |  |  |  | 0.7 |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 157 | 36.3 | 39.7 | 17.0 | 3.7 | 2.1 | 0.9 | 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 158 | 30.4 | 43.0 | 24.4 | 0.2 | 0.2 |  | 0.1 |  | 1.8 |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 159 | 25.3 | 67.3 | 7.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 160 | 28.5 | 63.5 | 8.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 161 | 25.0 | 67.8 | 7.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 162 | 27.7 | 64.2 | 8.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 163 | 30.2 | 60.8 | 9.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 164 | 48.2 | 0.2 | 19.4 | 32.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 165 | 34.0 | 32.9 | 9.0 |  |  |  |  | 7.9 |  |  |  |  |  |  | 16.2 |  |  |  |  |  |  |
| Spectrum 166 | 38.8 | 1.2 | 17.7 | 14.3 | 10.9 | 2.2 | 1.3 |  | 12.4 |  |  |  |  | 0.6 | 0.6 |  |  |  |  |  |  |
| Spectrum 167 | 37.8 | 2.0 | 15.5 | 15.2 | 11.1 | 2.5 | 1.4 |  | 12.5 | 0.3 |  |  |  | 0.7 | 1.0 |  |  |  |  |  |  |
| Spectrum 168 | 27.9 | 1.5 | 53.4 | 5.9 | 4.4 | 0.9 | 0.5 |  | 4.9 |  |  |  |  | 0.3 | 0.3 |  |  |  |  |  |  |
| Spectrum 169 | 36.0 | 0.7 | 28.5 | 14.3 | 9.7 | 3.1 | 1.5 |  | 5.5 |  |  |  |  | 0.4 | 0.3 |  |  |  |  |  |  |
| Spectrum 170 | 35.9 | 7.8 | 14.8 | 15.4 | 11.1 | 2.6 | 1.3 |  | 6.9 |  |  |  |  | 0.5 | 3.8 |  |  |  |  |  |  |
| Spectrum 171 | 40.8 | 0.9 | 15.5 | 19.9 | 10.6 | 5.0 | 2.5 | 1.6 | 2.2 | 0.4 |  |  |  | 0.1 | 0.3 |  |  |  |  |  |  |
| Spectrum 172 | 32.6 | 1.2 | 28.9 | 13.3 | 9.4 | 2.2 | 1.2 |  | 10.1 | 0.2 |  |  |  | 0.4 | 0.5 |  |  |  |  |  |  |
| Spectrum 173 | 36.7 | 2.6 | 19.9 | 15.1 | 10.5 | 3.0 | 1.6 |  |  |  |  |  |  | 0.5 | 1.2 |  |  |  |  |  |  |
| Spectrum 174 | 37.1 | 1.2 | 23.7 | 12.5 | 9.2 | 2.1 | 1.3 |  | 12.1 |  |  |  |  | 0.4 | 0.4 |  |  |  |  |  |  |
| Spectrum 175 | 43.4 | 40.5 | 16.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 176 | 44.3 | 39.3 | 16.1 |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 177 | 43.1 | 41.5 | 15.1 |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 178 | 45.4 | 38.2 | 16.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 179 | 45.3 | 38.2 | 16.3 |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 180 | 35.8 | 13.1 | 25.2 | 10.3 | 6.5 | 2.5 | 1.3 |  | 5.1 |  |  |  |  | 0.2 | 0.1 |  |  |  |  |  |  |
| Spectrum 181 | 29.3 | 32.5 | 34.8 | 0.9 | 0.7 |  | 0.1 |  | 1.0 |  |  |  | 0.1 |  | 0.6 |  |  |  |  |  |  |
| Spectrum 182 | 31.4 | 32.3 | 32.0 | 1.7 | 1.3 | 0.4 | 0.2 |  | 0.6 |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 183 | 44.1 | 33.3 | 19.6 | 1.1 | 0.7 | 0.3 | 0.1 |  | 0.5 | 0.3 |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 184 | 38.8 | 30.9 | 21.9 | 3.3 | 2.4 | 0.6 | 0.3 |  | 1.8 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 185 | 39.2 | 4.4 | 12.5 | 1.1 | 0.8 | 0.2 |  |  | 39.2 |  |  |  |  |  | 0.2 |  |  | 1.8 | 0.7 |  |  |
| Spectrum 186 | 31.1 | 33.0 | 29.4 | 2.7 | 1.7 | 0.7 | 0.3 |  | 1.1 |  |  |  |  | 0.2 |  |  |  |  |  |  |  |
| Spectrum 187 | 39.5 | 31.2 | 23.6 | 2.0 | 1.6 | 0.4 | 0.2 |  | 1.0 |  |  |  |  |  | 0.5 |  |  |  |  |  |  |
| Spectrum 188 | 31.7 | 37.6 | 26.2 | 1.5 | 1.0 |  | 0.2 |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 189 | 25.9 | 29.8 | 36.6 | 2.7 | 2.1 | 0.5 | 0.2 |  | 1.2 |  |  |  |  | 0.2 | 0.9 |  |  |  |  |  |  |
| Spectrum 190 | 38.7 | 36.2 | 23.2 | 0.7 | 0.5 |  |  |  | 0.7 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 191 | 29.2 | 34.0 | 31.5 | 0.4 | 0.6 |  |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |
| Spectrum 192 | 36.4 | 25.1 | 27.0 | 4.9 | 3.1 | 1.3 | 0.7 |  | 1.4 |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 193 | 31.4 | 30.4 | 32.4 | 2.6 | 1.5 | 0.7 | 0.4 |  | 0.5 |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 194 | 44.7 | 2.8 | 10.8 | 18.6 | 11.7 | 5.2 | 2.5 | 1.6 |  |  |  |  |  |  |  | 0.2 |  |  |  | 2.0 |  |
| Spectrum 195 | 30.5 | 38.8 | 27.0 | 1.3 | 1.0 |  | 0.1 |  | 1.1 |  |  |  |  | 0.2 |  |  |  |  |  |  |  |
| Spectrum 196 | 38.8 | 28.9 | 23.9 | 3.4 | 2.7 | 0.6 | 0.2 |  | 1.3 |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 197 | 35.2 | 36.1 | 26.4 | 0.8 | 0.6 |  |  |  | 0.7 |  |  |  |  | 0.2 |  |  |  |  |  |  |  |
| Spectrum 198 | 42.3 | 35.5 | 16.8 | 1.1 | 0.8 | 0.3 | 0.3 |  | 2.7 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 199 | 39.8 | 46.8 | 12.9 | 0.2 |  |  |  |  | 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 200 | 39.3 | 47.6 | 13.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 201 | 31.5 | 18.8 | 33.2 | 3.5 | 3.1 | 0.5 | 0.4 |  | 8.5 |  |  |  |  | 0.2 | 0.2 |  |  |  |  |  |  |
| Spectrum 202 | 24.1 | 25.3 | 31.7 | 3.2 | 2.2 | 0.7 | 0.3 | 1.0 | 1.8 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 203 | 40.4 | 7.3 | 20.6 | 13.9 | 9.0 | 3.5 | 1.5 | 0.8 | 2.0 |  |  |  |  | 0.1 | 1.0 |  |  |  |  |  |  |
| Spectrum 204 | 43.2 | 2.6 | 12.6 | 19.8 | 10.7 | 6.7 | 2.8 | 1.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 205 | 49.4 | 0.3 | 12.9 | 37.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 206 | 45.2 | 0.3 | 16.2 | 38.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 207 | 49.3 | 0.3 | 14.8 | 35.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 208 | 49.2 |  | 13.2 | 37.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 209 | 47.5 | 0.2 | 14.1 | 37.6 |  |  |  |  |  |  | 0.6 |  |  |  |  |  |  |  |  |  |  |
| Spectrum 210 | 46.9 | 0.3 | 12.6 | 33.9 | 3.1 | 1.7 | 0.9 | 0.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 211 | 49.2 | 0.2 | 12.9 | 37.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 212 | 49.0 | 0.2 | 12.8 | 38.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 213 | 48.8 |  | 13.6 | 37.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 214 | 49.1 | 0.2 | 12.6 | 37.6 |  |  |  |  |  |  |  | 0.5 |  |  |  |  |  |  |  |  |  |
| Spectrum 215 | 46.6 |  | 19.7 | 33.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 216 | 39.9 | 0.5 | 20.2 | 32.7 | 3.0 | 1.5 | 0.8 | 0.7 |  |  | 0.5 |  | 0.2 |  |  |  |  |  |  |  |  |
| Spectrum 217 | 40.8 | 0.4 | 18.8 | 33.5 | 3.6 | 1.6 | 0.7 | 0.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 218 | 48.2 | 0.2 | 14.0 | 36.9 |  |  |  |  |  |  |  | 0.7 |  |  |  |  |  |  |  |  |  |
| Spectrum 219 | 50.2 | 0.2 | 12.5 | 37.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 220 | 40.5 | 44.8 | 14.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 221 | 40.4 | 44.8 | 14.7 |  |  |  | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 222 | 38.9 | 47.2 | 13.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 223 | 37.9 | 47.9 | 14.1 |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 224 | 37.2 | 38.8 | 14.8 | 4.6 | 2.6 | 1.3 | 0.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 225 | 40.5 | 42.4 | 14.8 | 1.0 | 0.6 | 0.3 | 0.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 226 | 37.8 | 26.0 | 15.4 | 13.7 | 3.7 | 1.0 | 1.1 | 1.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 227 | 35.8 | 35.4 | 15.7 | 6.4 | 6.5 |  |  |  |  |  |  |  |  | 0.1 |  | 0.1 |  |  |  |  |  |
| Spectrum 228 | 39.0 | 45.9 | 14.9 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 229 | 40.7 | 42.3 | 14.9 | 1.1 | 0.8 |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 230 | 39.3 | 45.0 | 15.6 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 231 | 41.1 | 44.4 | 14.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 232 | 40.8 | 43.8 | 15.2 |  |  |  | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 233 | 40.2 | 44.2 | 15.1 | 0.4 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 234 | 39.9 | 45.5 | 14.2 | 0.2 | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 235 | 38.7 | 47.5 | 13.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 236 | 40.4 | 40.2 | 18.5 | 0.4 | 0.2 |  | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 237 | 25.9 | 36.8 | 28.7 | 7.3 | 0.9 | 0.3 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 238 | 39.5 | 34.2 | 24.4 | 1.1 | 0.7 |  | 0.1 |  |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |
| Spectrum 239 | 34.2 | 15.9 | 31.7 | 18.0 | 0.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 240 | 37.7 | 21.8 | 28.2 | 11.0 | 0.8 | 0.3 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 241 | 35.8 | 3.5 | 30.2 | 30.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 242 | 46.0 | 0.2 | 19.3 | 34.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 243 | 35.1 | 24.4 | 33.0 | 6.4 | 0.7 | 0.2 | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 244 | 47.5 | 0.8 | 17.7 | 34.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 245 | 34.3 | 28.3 | 30.1 | 3.8 | 2.3 | 0.8 | 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 246 | 36.3 | 32.3 | 24.5 | 3.6 | 1.9 | 1.0 | 0.4 |  |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |
| Spectrum 247 | 35.5 | 43.6 | 19.0 | 1.2 | 0.7 |  | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 248 | 36.1 | 39.5 | 21.4 | 1.6 | 0.8 | 0.4 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 249 | 33.9 | 25.6 | 23.9 | 16.3 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 250 | 41.3 | 36.1 | 21.4 | 0.6 | 0.4 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 251 | 39.3 | 32.5 | 26.4 | 1.0 | 0.6 |  | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 252 | 38.9 | 35.8 | 24.3 | 0.6 | 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 253 | 38.6 | 27.7 | 26.5 | 4.8 | 1.4 | 0.6 | 0.3 |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 254 | 38.3 | 42.1 | 17.9 | 1.0 | 0.6 |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 255 | 43.3 | 1.9 | 29.1 | 25.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 256 | 41.2 | 30.1 | 23.6 | 3.4 | 1.0 | 0.4 | 0.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 257 | 39.3 | 43.4 | 16.5 | 0.6 | 0.1 |  | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 258 | 33.5 | 12.7 | 37.0 | 16.7 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 259 | 34.0 | 2.3 | 45.5 | 17.9 | 0.2 |  |  |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |  |
| Spectrum 260 | 43.0 | 1.6 | 26.4 | 29.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 261 | 36.6 | 27.3 | 19.6 | 8.2 | 5.1 | 2.1 | 0.8 |  | 0.3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 262 | 38.6 | 1.6 | 17.6 | 21.2 | 10.8 | 5.8 | 2.8 | 1.2 | 0.3 |  |  |  |  |  | 0.2 |  |  |  |  |  |  |
| Spectrum 263 | 33.6 | 26.0 | 39.3 | 0.5 | 0.2 |  |  |  |  |  |  |  |  | 0.3 |  |  |  |  |  |  |  |
| Spectrum 264 | 14.9 | 0.1 | 84.3 |  |  |  |  |  |  |  |  |  |  | 0.6 |  |  |  |  |  |  |  |
| Spectrum 265 | 28.8 | 42.7 | 21.2 | 3.9 | 2.2 | 0.8 | 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 266 | 36.9 | 30.6 | 30.2 | 1.1 | 0.6 | 0.3 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 267 | 36.3 | 48.2 | 14.7 | 0.5 | 0.3 |  | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 268 | 39.3 | 45.1 | 15.3 | 0.1 |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 269 | 38.0 | 45.5 | 16.3 | 0.2 |  |  | 0.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 270 | 21.8 | 29.7 | 45.7 | 1.4 | 0.7 | 0.3 | 0.1 |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |
| Spectrum 271 | 40.7 | 37.5 | 20.5 | 0.7 | 0.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 272 | 35.1 | 21.2 | 28.6 | 13.4 | 1.1 | 0.4 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spectrum 273 | 49.8 |  | 12.0 | 38.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Total mx: 246** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Total counts** | **246** | **239** | **246** | **190** | **148** | **94** | **116** | **30** | **65** | **7** | **2** | **8** | **2** | **60** | **35** | **7** | **1** | **3** | **1** | **1** | **2** |
| **Min** | **6.5** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** | **ND** |
| **Max** | **50.2** | **67.4** | **90.7** | **38.3** | **11.7** | **7.1** | **3.6** | **7.9** | **48.4** | **2.8** | **0.6** | **0.9** | **0.2** | **2.3** | **16.2** | **7.6** | **1.0** | **1.8** | **0.7** | **2.0** | **1.4** |

SEM images showing EDS sample point locations listed in Table S3.



















