# EMEP – 29th intercomparison of analytical methods - % deviation from expected value

**Precipitation**

| | $SO_4^{2-}$ | | | | $NH_4^+$ | | | | $NO_3^-$ | | | | $Na^+$ | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | % deviation form expected value | | | | % deviation form expected value | | | | % deviation form expected value | | | | % deviation form expected value | | | |
| Lab no | G1 | G2 | G3 | G4 | G1 | G2 | G3 | G4 | G1 | G2 | G3 | G4 | G1 | G2 | G3 | G4 |
| 2 | 8 | 9 | 7 | 7 | 55 | 52 | 52 | 49 | -3 | -3 | -1 | 0 | -8 | -9 | -5 | -4 |
| 3 | 2 | 2 | 3 | 2 | 28 | 28 | 19 | 12 | 0 | 2 | 1 | 1 | -4 | -1 | 1 | -2 |
| 4 | 3 | 3 | 3 | 3 | 6 | 2 | 1 | 1 | 1 | 0 | 3 | 1 | -7 | -7 | -1 | -2 |
| 5 | 0 | 1 | 0 | 2 | 3 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| 8 | 4 | 5 | 5 | 5 | 4 | 2 | 3 | 4 | -2 | 1 | 1 | -15 | -8 | -7 | -6 | -3 |
| 10 | -9 | -8 | -7 | -6 | -9 | -14 | -2 | -24 | -16 | -15 | -13 | -14 | -1 | 0 | -4 | -1 |
| 12 | 2 | 4 | 1 | 4 | 12 | 7 | 9 | 6 | -7 | -3 | -1 | 2 | -7 | -9 | -6 | -4 |
| 13 | -3 | 1 | -1 | -1 | -3 | -2 | -3 | -2 | 26 | 11 | 4 | 12 | 4 | 1 | -6 | 4 |
| 14 | 0 | 0 | 0 | 0 | 29 | 13 | 11 | -1 | 2 | 3 | 1 | -1 | 1 | 1 | -1 | 0 |
| 15 | 0 | 2 | 2 | 3 | 0 | 0 | 0 | 0 | -1 | 1 | -1 | -3 | 0 | 0 | 0 | -1 |
| 16 | -1 | -1 | 0 | 0 | 27 | 9 | 13 | 13 | -5 | -5 | -3 | -3 | 5 | -1 | 0 | -4 |
| 19 | -1 | -6 | 9 | 4 | 12 | 7 | 5 | 3 | -7 | -6 | 16 | 2 | 12 | 20 | 13 | 11 |
| 20 | 2 | 1 | 3 | 1 | | | 16 | 9 | 0 | -1 | 1 | -1 | -3 | -4 | 1 | 0 |
| 21 | 4 | 3 | 4 | 5 | 5 | 2 | 6 | 3 | 0 | 0 | 1 | 1 | -1 | -2 | 0 | 0 |
| 22 | 13 | 13 | 8 | 11 | 41 | 44 | 36 | 24 | -3 | 1 | 3 | 5 | 6 | 21 | -6 | -10 |
| 23 | 3 | 3 | 6 | 3 | 10 | 1 | 7 | 5 | 1 | 2 | 4 | 4 | -6 | -10 | -4 | 2 |
| 24 | 1 | 1 | 2 | 2 | -1 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | -3 | -3 | -2 | -2 |
| 26 | -1 | -1 | 1 | 0 | 1 | 0 | 2 | 2 | -1 | 0 | 0 | 0 | -1 | -1 | -1 | -1 |
| 27 | -1 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | -1 | 0 | 0 | -2 | -1 | 0 | 0 | 1 |
| 30 | 0 | 2 | 0 | 1 | -3 | -3 | -1 | 0 | -5 | -4 | -4 | -2 | 2 | 1 | 2 | 3 |
| 31 | 1 | 1 | 2 | 1 | 7 | 3 | 2 | 0 | -3 | -1 | -10 | 0 | -4 | -7 | -4 | -3 |
| 32 | -2 | 4 | 1 | -1 | -3 | -7 | -6 | -5 | -4 | -1 | -1 | 0 | | | | |
| 33 | 14 | 13 | 16 | 15 | 1 | 7 | 7 | 8 | 13 | 14 | 15 | 14 | -2 | -4 | 1 | 1 |
| 47 | -7 | -5 | -7 | -6 | 43 | 22 | 26 | 14 | -11 | -11 | -10 | -9 | -38 | -37 | -37 | -34 |
| 35 | 1 | 1 | 4 | 3 | -7 | -7 | -3 | -1 | 0 | 2 | 3 | 2 | -10 | -13 | -7 | -11 |
| 36 | 3 | 3 | 6 | 5 | -4 | -5 | -5 | -3 | 1 | 1 | 3 | 4 | -3 | -2 | -3 | -3 |
| 39 | -1 | 2 | 0 | -1 | -66 | -33 | -24 | -23 | 0 | 0 | -2 | -2 | -3 | 0 | -1 | 0 |
| 40 | | | | | 23 | -17 | -13 | -9 | 16 | 7 | 20 | 21 | 32 | 40 | 16 | 17 |
| 42 | -3 | 3 | 11 | 9 | -16 | -14 | -17 | -14 | 13 | 2 | 4 | -14 | 18 | -6 | -11 | -10 |
| 43 | 105 | -44 | 9 | 1 | | | | | -36 | -56 | -54 | -77 | | | | |
| 45 | 5 | 6 | 4 | 5 | -21 | 38 | -10 | -6 | 1 | 1 | 1 | 4 | -21 | -14 | -14 | -19 |
| 46 | | | | | | | | | | | | | | | | |
| 104 | -3 | -2 | -2 | -2 | 3 | -4 | 14 | 2 | -3 | -3 | 0 | 0 | 7 | 12 | 3 | -72 |
| 107 | -2 | 1 | -4 | -1 | -3 | -2 | -2 | 1 | -1 | 0 | -4 | -1 | | | | |
| 110 | 0 | -6 | -1 | -4 | 72 | 36 | 1 | 1 | 11 | -1 | 6 | 2 | -3 | -4 | 1 | 2 |
| 112 | -1 | 0 | 1 | 0 | -10 | -7 | -3 | -2 | -4 | -3 | -4 | -4 | 4 | 1 | 4 | 4 |
| 113 | | | | | | | | | | | | | -10 | -3 | -11 | -10 |
| 114 | -5 | -5 | -4 | -3 | 19 | 3 | 1 | -2 | -4 | -3 | -4 | -4 | -3 | -9 | -3 | 0 |
| 115 | 1 | 2 | 5 | 5 | -5 | -4 | 0 | -1 | 7 | 8 | 0 | 1 | 11 | 7 | 8 | 5 |
| 117 | -16 | -17 | -18 | -20 | -3 | -2 | 1 | 1 | 19 | 25 | 23 | 22 | -7 | -4 | -6 | -4 |
| 118 | 0 | 4 | 4 | 4 | 11 | -1 | 1 | 5 | 4 | -1 | -1 | -1 | -18 | -18 | -18 | -16 |
| 120 | -8 | -10 | -8 | -6 | -16 | -2 | 6 | 4 | -1 | 0 | 0 | 0 | -5 | 0 | -5 | -4 |
| 121 | -10 | -14 | -1 | -7 | 2 | -14 | -13 | -11 | 3 | 4 | 4 | 1 | -11 | -14 | -10 | -8 |
| 124 | 1 | 1 | 0 | 0 | -10 | -3 | 7 | 11 | 2 | 2 | -1 | -2 | -5 | -4 | -5 | 0 |
| 125 | 3 | 3 | 4 | 4 | 19 | 12 | 12 | 11 | 0 | -3 | -1 | -1 | -7 | -11 | -16 | -14 |
| 126 | -3 | -3 | 1 | -1 | -1 | -3 | 0 | -3 | 0 | -3 | -2 | -10 | -3 | -9 | -6 | -6 |
| 146 | -2 | -2 | -2 | -2 | 1 | -1 | -1 | 0 | -7 | -6 | -4 | -3 | -1 | 2 | -1 | 1 |
| 150 | 2 | 2 | 1 | 1 | 9 | 2 | -2 | 1 | -4 | -1 | -4 | -3 | -6 | -6 | -1 | 2 |
| 151 | -1 | -2 | -1 | -1 | -13 | -6 | 2 | -1 | -8 | -7 | -7 | -4 | -7 | -8 | -3 | 0 |
| 155 | 2 | 2 | 3 | 3 | -4 | -6 | -1 | -4 | -2 | -5 | -2 | 0 | 2 | 3 | 2 | 1 |
| 156 | | | | | -4 | -6 | -1 | -4 | | | | | 2 | 3 | 2 | 1 |
| 158 | 0 | -1 | -4 | -5 | 19 | 14 | 13 | 9 | 2 | 7 | 3 | 3 | 1 | 1 | 3 | 4 |
| 160 | -5 | 13 | | 14 | 6 | 1 | 3 | 15 | | | | 18 | | | -54 | -72 |
| 164 | -3 | -2 | -2 | -1 | -18 | -7 | -3 | -8 | -11 | -3 | 1 | 4 | -14 | -13 | -6 | -4 |
| 165 | 4 | 5 | 3 | 4 | -4 | -5 | -1 | 2 | 4 | -2 | -2 | -2 | -5 | -13 | -5 | -4 |
| 166 | 4 | 4 | 3 | 2 | -1 | 0 | 3 | 0 | 1 | 3 | 2 | 0 | -10 | -9 | -7 | -4 |
| 167 | 4 | 8 | 5 | 4 | -11 | -8 | -8 | -7 | -7 | -2 | -2 | 0 | 4 | 6 | 0 | 2 |
| 172 | 5 | 4 | 4 | 12 | 17 | 12 | 11 | 13 | 1 | 1 | 2 | 4 | -19 | -25 | -14 | -8 |
| 175 | -43 | -40 | -56 | -20 | -10 | -25 | -3 | 3 | 11 | 11 | -11 | -11 | -48 | -38 | -43 | -26 |
| 176 | -91 | -9 | -7 | -11 | -3 | 3 | -3 | 1 | 22 | 19 | 18 | 29 | -14 | -18 | -9 | 0 |
| 178 | 4 | 7 | 7 | 6 | -18 | -21 | -10 | -11 | 4 | 25 | 4 | 7 | -14 | -18 | -15 | -8 |
| 179 | -9 | -12 | -13 | -15 | -57 | -65 | -67 | -68 | -6 | -12 | -8 | -4 | 20 | 13 | 19 | 17 |
| 180 | 0 | 0 | 1 | 1 | 1 | -5 | -3 | -3 | 1 | 0 | 0 | -1 | 12 | 14 | 12 | 12 |

| | $Mg^{2+}$ | | | | $Cl^-$ | | | | $Ca^{2+}$ | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | % deviation form expected value | | | | % deviation form expected value | | | | % deviation form expected value | | | |
| Lab no | G1 | G2 | G3 | G4 | G1 | G2 | G3 | G4 | G1 | G2 | G3 | G4 |
| 2 | 4 | 3 | 7 | 6 | -17 | -28 | -13 | -10 | -92 | -55 | -24 | -29 |
| 3 | -5 | -4 | -6 | -6 | -2 | 3 | 2 | 0 | 6 | 4 | 5 | -10 |
| 4 | -11 | -10 | -8 | -10 | -1 | -1 | -2 | -3 | 8 | 0 | 263 | 4 |
| 5 | 0 | 2 | 0 | -1 | 1 | 2 | 1 | 0 | 2 | 2 | 5 | 1 |
| 8 | 7 | 9 | 4 | 1 | -1 | 1 | 0 | 1 | -16 | -31 | -22 | -23 |
| 10 | 12 | 12 | 5 | 6 | -19 | -12 | -16 | -21 | 33 | 13 | 9 | 10 |
| 12 | -2 | -1 | -1 | 1 | 24 | 36 | 11 | 10 | -22 | -14 | -12 | -17 |
| 13 | 17 | 18 | 23 | 10 | 35 | 17 | 4 | 4 | 27 | 50 | 23 | 20 |
| 14 | 0 | 1 | -1 | 1 | -12 | -16 | -22 | -22 | 4 | 4 | 3 | 2 |
| 15 | -5 | -3 | -4 | -1 | 1 | 1 | 8 | 3 | -5 | 4 | 5 | 4 |
| 16 | -1 | 0 | -3 | -2 | -5 | -4 | -4 | -4 | 2 | -1 | 1 | 2 |
| 19 | 7 | 8 | 2 | 3 | | | 59 | -8 | 39 | 24 | 21 | 22 |
| 20 | -3 | -3 | -4 | 3 | 4 | 4 | 0 | 1 | -2 | -7 | 3 | -1 |
| 21 | 2 | 2 | 3 | 3 | 4 | 6 | 1 | 1 | 6 | 1 | 2 | 3 |
| 22 | 0 | -1 | -4 | -6 | -5 | -3 | -14 | -16 | 87 | 43 | 2 | 6 |
| 23 | 12 | 9 | 2 | 5 | -1 | 2 | 3 | 3 | 93 | 24 | 20 | 25 |
| 24 | -6 | -5 | -4 | -3 | -8 | -8 | -2 | 4 | -18 | -13 | -9 | -10 |
| 26 | -1 | 3 | -2 | -3 | 0 | 0 | 0 | 0 | 7 | 2 | 5 | 4 |
| 27 | 0 | 1 | 0 | 0 | -1 | -2 | 1 | 2 | 3 | 2 | 0 | 0 |
| 30 | 1 | 2 | 2 | 1 | -5 | -1 | -1 | 1 | 1 | 0 | 2 | 3 |
| 31 | -10 | -12 | -11 | 1 | -9 | -14 | -10 | -13 | -17 | -15 | -10 | -12 |
| 32 | | | | | -12 | -9 | -7 | -2 | | | | |
| 33 | -4 | -3 | -2 | 5 | 13 | 21 | 14 | 16 | -9 | -6 | -6 | -3 |
| 47 | -1 | 3 | -3 | 0 | -9 | -6 | -10 | -11 | -2 | -3 | -7 | -6 |
| 35 | -32 | -38 | -24 | -18 | -3 | -3 | -2 | -1 | -75 | -82 | -32 | -40 |
| 36 | 2 | 5 | 2 | 0 | -6 | -2 | -10 | -2 | -4 | 1 | -3 | -2 |
| 39 | 5 | 8 | 5 | 19 | 1 | 18 | -2 | -1 | 1 | 4 | 4 | 561 |
| 40 | | | | | 64 | 90 | 69 | 49 | | | | |
| 42 | 17 | -9 | -2 | -2 | -15 | 28 | -5 | -7 | 97 | 17 | 16 | 18 |
| 43 | | | | | 299 | 51 | 104 | 66 | | | | |
| 45 | -46 | -39 | -44 | -43 | -8 | -9 | -7 | -7 | 98 | -38 | -38 | -45 |
| 46 | | | | | | | | | | | | |
| 104 | -7 | -5 | -5 | -3 | 6 | 23 | 6 | 7 | -7 | -7 | -5 | -3 |
| 107 | | | | | -8 | 15 | -9 | -6 | | | | |
| 110 | -3 | -3 | -4 | 3 | | | -4 | 1 | -2 | -7 | -2 | -6 |
| 112 | -13 | -14 | -12 | -3 | 4 | 4 | 4 | 1 | -2 | 0 | -2 | -1 |
| 113 | 6 | 1 | 5 | -1 | | | | | 262 | 80 | 31 | -1 |
| 114 | 26 | 18 | 14 | 10 | -7 | -9 | -7 | -8 | 18 | 7 | -2 | -6 |
| 115 | -12 | -11 | -12 | -12 | 53 | 69 | 41 | 27 | -1 | -5 | -4 | -6 |
| 117 | 7 | 8 | -4 | 3 | 50 | | 11 | 10 | -2 | 0 | 3 | -1 |
| 118 | -10 | -6 | -10 | -8 | -27 | -35 | -22 | -14 | -22 | -21 | -17 | -17 |
| 120 | -17 | -13 | -17 | -11 | -4 | 21 | 3 | 7 | -21 | -16 | -19 | -14 |
| 121 | -7 | -6 | -6 | -6 | -2 | -2 | -4 | -7 | -25 | -18 | -13 | -17 |
| 124 | -1 | 0 | -1 | -1 | 3 | 17 | -10 | -17 | -3 | -1 | -2 | -2 |
| 125 | -5 | -8 | -15 | -12 | 56 | 60 | 21 | 71 | 0 | -1 | -11 | -9 |
| 126 | 26 | 29 | 23 | 17 | -17 | -3 | -19 | -22 | -2 | 0 | -12 | -6 |
| 146 | 15 | 14 | -4 | 3 | -4 | 3 | -4 | -3 | 39 | 18 | -10 | 5 |
| 150 | -2 | 2 | 0 | 2 | -7 | -3 | -4 | -11 | -1 | 27 | -2 | 1 |
| 151 | -2 | 5 | -90 | 1 | 8 | 838 | 537 | 639 | -11 | -8 | -3 | -6 |
| 155 | 2 | 3 | 2 | 1 | -8 | -14 | -6 | -4 | 7 | 4 | 2 | 2 |
| 156 | 2 | 3 | 2 | 1 | | | | | 7 | 4 | 2 | 2 |
| 158 | 0 | 2 | 4 | 6 | 7 | -1 | 0 | 2 | 0 | -1 | 0 | -1 |
| 160 | | | | -52 | | | | | | | | |
| 164 | -32 | -25 | -30 | -24 | -2 | -9 | 0 | -2 | -22 | -21 | -12 | -17 |
| 165 | -17 | -14 | -16 | -18 | -6 | -10 | -5 | -1 | -19 | -28 | -25 | -27 |
| 166 | -3 | -1 | -4 | -3 | -9 | -6 | -3 | -10 | 3 | 6 | -1 | -1 |
| 167 | 71 | 38 | 20 | 19 | 20 | 35 | 12 | 5 | 225 | 54 | 12 | 45 |
| 172 | -12 | -5 | -10 | -11 | -12 | -11 | -9 | 1 | -2 | -6 | -4 | -2 |
| 175 | 17 | 18 | -4 | 10 | -33 | -42 | -59 | -68 | 135 | 107 | 37 | 61 |
| 176 | -3 | -3 | -4 | -3 | -7 | -3 | -4 | -5 | -12 | -7 | -12 | -11 |
| 178 | -3 | -3 | -4 | 3 | -2 | 49 | 4 | -2 | 8 | 0 | -2 | -1 |
| 179 | -2 | 2 | 4 | 4 | 31 | 74 | 34 | 35 | 8 | 3 | 0 | 0 |
| 180 | 6 | 8 | 5 | 4 | 2 | 6 | 0 | -1 | 13 | 16 | 4 | 9 |

| | $K^+$ | | | | pH | | | | Cond | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | % deviation form expected value | | | | pH-units from expected value | | | | % deviation form expected value | | | |
| Lab no | G1 | G2 | G3 | G4 | G1 | G2 | G3 | G4 | G1 | G2 | G3 | G4 |
| 2 | -7 | -4 | -5 | -3 | 0.33 | 0.32 | 0.47 | 0.38 | -3 | -3 | 3 | -4 |
| 3 | -7 | -7 | -4 | -7 | -0.07 | -0.08 | -0.05 | -0.08 | 3 | 1 | 10 | 4 |
| 4 | -12 | -12 | -18 | -12 | -0.02 | -0.02 | 0 | -0.02 | | | | |
| 5 | -1 | 2 | 2 | 5 | -0.02 | -0.02 | -0.01 | -0.02 | 1 | 0 | 5 | 0 |
| 8 | -4 | -4 | -5 | -4 | -0.04 | -0.04 | -0.02 | -0.03 | -2 | -2 | 5 | -2 |
| 10 | -35 | 1 | -12 | -7 | -0.08 | -0.07 | -0.02 | -0.06 | 4 | 1 | 7 | 2 |
| 12 | -12 | -7 | -6 | -3 | -0.03 | -0.02 | 0.02 | 0 | -2 | -1 | 2 | -2 |
| 13 | 10 | 13 | 47 | 5 | -0.42 | -0.21 | -0.1 | -0.13 | 52 | 10 | 31 | 14 |
| 14 | 0 | -3 | -4 | -3 | -0.12 | -0.11 | -0.14 | -0.13 | 5 | 0 | 6 | 0 |
| 15 | -8 | -1 | -1 | 5 | -0.01 | -0.05 | -0.02 | -0.05 | 0 | -1 | -6 | -3 |
| 16 | 15 | 0 | 2 | 1 | -0.04 | -0.03 | -0.03 | -0.01 | 0 | -1 | 3 | -2 |
| 19 | 0 | 6 | 162 | 8 | -0.12 | -0.14 | -0.26 | -0.18 | 0 | -3 | -2 | -4 |
| 20 | 3 | -2 | 0 | 1 | -0.1 | -0.03 | -0.1 | -0.03 | 0 | 0 | 6 | 0 |
| 21 | 1 | 4 | 3 | 5 | -0.05 | -0.05 | -0.01 | -0.03 | 1 | -1 | 4 | -2 |
| 22 | 13 | 12 | 0 | 13 | 0.02 | -0.03 | 0.01 | 0.05 | -9 | -9 | -8 | -6 |
| 23 | 3 | -1 | -1 | 10 | -0.05 | -0.07 | -0.02 | -0.13 | 0 | -2 | 3 | -2 |
| 24 | -3 | -1 | -1 | 0 | -0.04 | -0.01 | 0.01 | -0.02 | 5 | 0 | 13 | -5 |
| 26 | 0 | 0 | -1 | 0 | -0.04 | -0.05 | -0.02 | -0.04 | | | | |
| 27 | 2 | 0 | 0 | 1 | -0.03 | -0.06 | -0.01 | -0.04 | 1 | 1 | 7 | 1 |
| 30 | -8 | -8 | -4 | -2 | -0.19 | -0.06 | -0.25 | -0.05 | -7 | -9 | -5 | -16 |
| 31 | -9 | -11 | -13 | -9 | -0.07 | -0.07 | -0.02 | -0.02 | 1 | -2 | -10 | 1 |
| 32 | | | | | -0.05 | -0.04 | -0.04 | -0.02 | -7 | -5 | 0 | -5 |
| 33 | 2 | 2 | 2 | 4 | -0.03 | -0.07 | -0.12 | -0.11 | 14 | 15 | 20 | 14 |
| 47 | -30 | -27 | -30 | -27 | -0.3 | -0.32 | -0.24 | -0.29 | -12 | -11 | -6 | -13 |
| 35 | -9 | -5 | -6 | -3 | -0.05 | -0.05 | -0.03 | -0.04 | 5 | 0 | 6 | 0 |
| 36 | -8 | -2 | -9 | 0 | -0.08 | -0.08 | -0.05 | -0.07 | -5 | -9 | -2 | -7 |
| 39 | -1 | -1 | -2 | 0 | | | | | | | | |
| 40 | -18 | -6 | -4 | -7 | -0.17 | 0.16 | -0.18 | 0.39 | -32 | -28 | -25 | -18 |
| 42 | 154 | -5 | 86 | 83 | -0.74 | -0.56 | -0.52 | -0.47 | 5 | 0 | 6 | 0 |
| 43 | | | | | 0.23 | 0.27 | 0.03 | 0 | -5 | -26 | -1 | -15 |
| 45 | -51 | -23 | -32 | -28 | 0.16 | 0.15 | 0.22 | 0.12 | 1 | -1 | 4 | -1 |
| 46 | | | | | -0.03 | -0.05 | -0.01 | -0.03 | 0 | -1 | 4 | -4 |
| 104 | 6 | -2 | -1 | 0 | -0.36 | -0.47 | -0.08 | -0.22 | 49 | -30 | 68 | 47 |
| 107 | | | | | -0.05 | -0.04 | -0.03 | -0.03 | -2 | -2 | 3 | -2 |
| 110 | 3 | 8 | 6 | 1 | -0.02 | -0.05 | -0.02 | -0.02 | -20 | -14 | -8 | -9 |
| 112 | 3 | 3 | 0 | 1 | -0.17 | -0.16 | -0.22 | -0.16 | -5 | -6 | -3 | -5 |
| 113 | 35 | 18 | 32 | 17 | 0.07 | -0.19 | -0.09 | -0.29 | -17 | -28 | -12 | -25 |
| 114 | -12 | -12 | -12 | -8 | -0.13 | -0.09 | -0.07 | -0.12 | 1 | -1 | 4 | -1 |
| 115 | 38 | 5 | 22 | 10 | -0.34 | -0.15 | -0.21 | -0.15 | -23 | -17 | -13 | -17 |
| 117 | -4 | -2 | 0 | -3 | -0.08 | -0.09 | -0.07 | -0.08 | 5 | 0 | 6 | 0 |
| 118 | -19 | -17 | -12 | -12 | -0.05 | -0.05 | -0.03 | -0.04 | -2 | -7 | -3 | -7 |
| 120 | -35 | -27 | -36 | -20 | -0.06 | -0.06 | -0.02 | -0.04 | 5 | 0 | 6 | 0 |
| 121 | | -11 | -9 | -8 | -0.15 | -0.06 | -0.05 | -0.04 | 4 | 1 | 15 | 5 |
| 124 | -1 | -2 | -1 | 1 | -0.05 | -0.02 | -0.02 | -0.02 | 5 | 3 | 6 | 0 |
| 125 | -5 | -9 | -15 | -13 | 0.15 | 0.15 | 0.32 | 0.27 | -3 | -2 | 3 | -1 |
| 126 | 3 | -2 | 0 | 5 | -0.09 | -0.08 | -0.09 | -0.09 | -5 | -5 | 3 | -3 |
| 146 | 0 | 1 | 1 | 3 | -0.08 | -0.09 | -0.03 | -0.03 | 14 | 4 | 4 | -1 |
| 150 | 10 | 13 | 12 | 9 | -0.16 | -0.1 | -0.1 | -0.12 | -5 | -6 | -3 | -7 |
| 151 | 5 | 0 | 3 | 3 | | | | | | | | |
| 155 | -7 | -7 | -6 | -6 | -0.09 | -0.08 | -0.07 | -0.08 | 0 | -2 | 3 | -2 |
| 156 | -7 | -7 | -6 | -6 | -0.09 | -0.08 | -0.07 | -0.08 | 0 | -2 | 3 | -2 |
| 158 | -6 | -2 | 0 | 3 | 0 | -0.03 | -0.02 | -0.02 | 0 | -1 | 4 | -1 |
| 160 | -67 | -78 | -74 | -55 | | | | | | | | |
| 164 | -26 | -22 | 6 | -20 | -0.03 | 0 | 0.04 | 0.03 | -4 | -6 | 4 | -7 |
| 165 | 75 | 53 | 96 | 79 | -0.06 | -0.01 | 0.02 | -0.01 | -14 | -3 | 6 | -1 |
| 166 | -12 | -10 | -11 | -8 | 0.01 | -0.08 | -0.02 | -0.02 | -1 | -10 | 4 | -2 |
| 167 | -54 | -31 | -39 | -23 | | | | | | | | |
| 172 | -65 | -45 | -48 | -33 | 0.1 | 0.37 | 0.58 | 0.43 | 0 | 0 | 3 | -1 |
| 175 | 18 | 8 | 18 | 26 | -0.1 | -0.11 | -0.16 | -0.1 | -92 | -92 | -92 | -92 |
| 176 | -26 | -17 | -18 | -12 | -0.06 | -0.07 | -0.04 | -0.05 | -5 | -7 | -1 | -6 |
| 178 | -34 | -26 | -29 | -20 | 0.08 | -0.02 | 0.02 | 0.09 | 3 | 0 | 4 | 1 |
| 179 | 52 | 46 | 46 | 45 | | | | | | | | |
| 180 | -56 | -27 | -37 | -20 | | | | | | | | |

(yellow) $SO_4^{2-}$ and $NO_3^-$: between ±10 and 20%

(red) $SO_4^{2-}$ and $NO_3^-$: more than ±20%

(yellow) $NH_4^+$, $Cl^-$, $Na^+$, $Mg^{2+}$, $Ca^{2+}$, $K^+$ and cond: between ±15 and 25%

(red) $NH_4^+$, $Cl^-$, $Na^+$, $Mg^{2+}$, $Ca^{2+}$, $K^+$ and cond: more than ±25%

(yellow) pH: between ±0.1 -0.2 pH-units

(red) pH: more than ±0.2 pH-units