

**CHAPTER 2. Concentration vs. Time data from experiments in this study for dissolution experiments in presence of fluoride**

| <b>Expt. No.</b> | <b>Concentration Corrected (m)</b> | <b>Time (sec)</b> |
|------------------|------------------------------------|-------------------|
| 2F-III           | 7.83E-07                           | 0                 |
|                  | 1.04E-05                           | 3888              |
|                  | 1.96E-05                           | 10800             |
|                  | 1.83E-05                           | 14400             |
| 4F-I             | 6.06E-04                           | 0                 |
|                  | 6.69E-04                           | 6588              |
|                  | 9.08E-04                           | 14976             |
|                  | 9.00E-04                           | 28800             |
| 7F-I             | 1.80E-04                           | 6300              |
|                  | 2.58E-04                           | 14976             |
|                  | 3.04E-04                           | 22176             |
|                  | 4.37E-04                           | 28800             |
| 8F-III           | 2.51E-05                           | 0                 |
|                  | 4.44E-05                           | 6300              |
|                  | 4.73E-05                           | 14976             |
|                  | 5.64E-05                           | 22176             |
| 10F-I            | 9.75E-06                           | 6300              |
|                  | 4.33E-05                           | 14688             |
|                  | 5.05E-05                           | 22176             |
|                  | 7.78E-05                           | 28800             |
| 13F-I            | 1.04E-03                           | 3600              |
|                  | 1.28E-03                           | 7200              |
|                  | 1.60E-03                           | 14400             |
|                  | 1.67E-03                           | 21600             |
| 16F-I            | 2.82E-04                           | 3600              |
|                  | 2.94E-04                           | 7200              |
|                  | 5.74E-04                           | 14400             |
|                  | 5.76E-04                           | 21600             |
| 17F-III          | 1.99E-05                           | 3600              |
|                  | 5.22E-05                           | 7200              |

|         |          |       |
|---------|----------|-------|
|         | 9.75E-05 | 11376 |
|         | 1.48E-04 | 21600 |
| 19F-0   | 1.07E-04 | 0     |
|         | 1.40E-03 | 7200  |
|         | 1.87E-03 | 10800 |
|         | 2.22E-03 | 15300 |
|         | 2.55E-03 | 21600 |
| 20F-II  | 1.06E-04 | 7200  |
|         | 1.22E-04 | 10800 |
|         | 2.05E-04 | 15300 |
|         | 3.32E-04 | 21600 |
| 22F-0   | 1.10E-04 | 0     |
|         | 4.24E-04 | 3600  |
|         | 5.64E-04 | 7200  |
|         | 9.34E-04 | 14400 |
| 23F-I   | 4.79E-04 | 7200  |
|         | 4.81E-04 | 11088 |
|         | 4.74E-04 | 14400 |
|         | 6.41E-04 | 20700 |
| 24F-II  | 4.12E-05 | 0     |
|         | 1.07E-04 | 3600  |
|         | 1.14E-04 | 7200  |
|         | 1.22E-04 | 11088 |
|         | 1.33E-04 | 14400 |
|         | 1.69E-04 | 20700 |
| 25F-III | 1.35E-05 | 11088 |
|         | 2.10E-05 | 14400 |
|         | 2.81E-05 | 20700 |
| 29F-I   | 4.17E-05 | 0     |
|         | 1.60E-04 | 6876  |
|         | 1.87E-04 | 10800 |
|         | 2.39E-04 | 21600 |
| 30F-II  | 6.89E-05 | 0     |
|         | 1.03E-04 | 3600  |
|         | 1.06E-04 | 6876  |

|         |          |       |
|---------|----------|-------|
|         | 1.36E-04 | 10800 |
|         | 1.57E-04 | 14400 |
| 31F-III | 4.54E-05 | 6876  |
|         | 5.15E-05 | 10800 |
|         | 5.77E-05 | 14400 |
|         | 6.24E-05 | 21600 |
| 32F-IV  | 1.84E-06 | 6876  |
|         | 7.78E-06 | 10800 |
|         | 2.62E-05 | 21600 |
| 34F-0   | 0.00E+00 | 0     |
|         | 3.20E-03 | 3600  |
|         | 3.26E-03 | 5400  |
|         | 3.13E-03 | 9000  |
| 35F-I   | 0.00E+00 | 0     |
|         | 2.24E-03 | 3600  |
|         | 3.05E-03 | 5400  |
|         | 3.61E-03 | 7200  |
|         | 3.71E-03 | 9000  |
| 36F-II  | 0.00E+00 | 0     |
|         | 1.95E-03 | 1800  |
|         | 2.67E-03 | 3600  |
|         | 2.41E-03 | 5400  |
|         | 3.24E-03 | 7200  |
|         | 2.50E-03 | 9000  |
| 37F-III | 0.00E+00 | 0     |
|         | 2.58E-03 | 1800  |
|         | 2.27E-03 | 5400  |
|         | 3.36E-03 | 7200  |
|         | 3.25E-03 | 9000  |
| 38F-IV  | 0.00E+00 | 0     |
|         | 3.41E-03 | 1800  |
|         | 3.61E-03 | 3600  |
|         | 4.13E-03 | 7200  |
|         | 4.18E-03 | 9000  |
| 39F-V   | 0.00E+00 | 0     |

|         |          |       |
|---------|----------|-------|
|         | 3.22E-03 | 1800  |
|         | 2.87E-03 | 3600  |
|         | 3.70E-03 | 5400  |
|         | 3.95E-03 | 7200  |
| 40F-0   | 1.61E-03 | 0     |
|         | 1.53E-03 | 3600  |
|         | 1.73E-03 | 7200  |
|         | 2.25E-03 | 11088 |
|         | 2.22E-03 | 14688 |
|         | 2.33E-03 | 21888 |
| 41F-I   | 1.70E-03 | 0     |
|         | 1.51E-03 | 3600  |
|         | 1.91E-03 | 7200  |
|         | 2.16E-03 | 11088 |
|         | 2.13E-03 | 14688 |
|         | 2.51E-03 | 21888 |
| 42F-II  | 1.55E-03 | 0     |
|         | 1.77E-03 | 3600  |
|         | 1.93E-03 | 7200  |
|         | 1.93E-03 | 11088 |
|         | 2.43E-03 | 14688 |
|         | 2.39E-03 | 21888 |
| 43F-III | 1.55E-03 | 3600  |
|         | 1.88E-03 | 7200  |
|         | 1.92E-03 | 11088 |
|         | 2.34E-03 | 14688 |
|         | 2.90E-03 | 21888 |
| 44F-IV  | 1.40E-03 | 0     |
|         | 1.91E-03 | 3600  |
|         | 2.28E-03 | 7200  |
|         | 2.38E-03 | 11088 |
|         | 2.54E-03 | 21888 |
| 45F-V   | 1.76E-03 | 0     |
|         | 2.17E-03 | 3600  |
|         | 1.80E-03 | 7200  |
|         | 2.19E-03 | 11088 |
|         | 2.45E-03 | 14688 |

|         |          |       |
|---------|----------|-------|
|         | 2.43E-03 | 21888 |
| 46F-0   | 2.07E-03 | 5400  |
|         | 4.53E-03 | 10800 |
|         | 3.92E-03 | 16200 |
| 47F-I   | 8.51E-03 |       |
|         | 2.07E-03 | 5400  |
|         | 1.89E-03 | 10800 |
|         | 3.41E-03 | 16200 |
| 48F-II  | 0.00E+00 | 0     |
|         | 1.86E-03 | 5400  |
|         | 2.45E-03 | 10800 |
|         | 4.36E-03 | 16200 |
| 49F-III | 0.00E+00 | 0     |
|         | 2.57E-03 | 5400  |
|         | 2.36E-03 | 10800 |
|         | 3.42E-03 | 16200 |
| 50F-IV  | 0.00E+00 | 0     |
|         | 3.04E-03 | 5400  |
|         | 3.38E-03 | 16200 |
| 51F-V   | 0.00E+00 | 0     |
|         | 2.07E-03 | 5400  |
|         | 2.33E-03 | 10800 |
| 52F-0   | 4.19E-03 | 576   |
|         | 4.84E-03 | 5400  |
|         | 6.12E-03 | 11088 |
|         | 6.76E-03 | 16488 |
| 53F-I   | 4.47E-03 | 576   |
|         | 4.64E-03 | 5400  |
|         | 6.31E-03 | 11088 |
|         | 6.89E-03 | 16488 |
| 54F-II  | 4.26E-03 | 576   |
|         | 4.73E-03 | 5400  |
|         | 6.00E-03 | 11088 |
|         | 6.66E-03 | 16488 |

|         |          |       |
|---------|----------|-------|
| 55F-III | 4.18E-03 | 576   |
|         | 5.21E-03 | 5400  |
|         | 6.68E-03 | 11088 |
|         | 7.71E-03 | 16488 |
| 56F-IV  | 3.77E-03 | 576   |
|         | 4.97E-03 | 5400  |
|         | 6.24E-03 | 11088 |
|         | 7.34E-03 | 16488 |
| 57F-V   | 4.59E-05 | 576   |
|         | 4.60E-03 | 5400  |
|         | 6.17E-03 | 11088 |
|         | 7.00E-03 | 16488 |
| 58F-0   | 2.44E-04 | 288   |
|         | 3.09E-04 | 5400  |
|         | 4.14E-04 | 11088 |
|         | 4.72E-04 | 18000 |
| 59F-I   | 1.95E-04 | 288   |
|         | 3.07E-04 | 5400  |
|         | 3.88E-04 | 11088 |
|         | 4.47E-04 | 18000 |
| 60F-II  | 1.96E-04 | 288   |
|         | 2.85E-04 | 5400  |
|         | 3.75E-04 | 11088 |
|         | 4.57E-04 | 18000 |
| 61F-III | 1.81E-04 | 288   |
|         | 2.64E-04 | 5400  |
|         | 3.39E-04 | 11088 |
|         | 4.31E-04 | 18000 |
| 62F-IV  | 6.99E-05 | 288   |
|         | 2.76E-04 | 5400  |
|         | 3.48E-04 | 11088 |
|         | 4.29E-04 | 18000 |
| 63F-V   | 4.65E-05 | 288   |
|         | 2.83E-04 | 5400  |

|          |          |       |
|----------|----------|-------|
|          | 3.76E-04 | 11088 |
|          | 4.44E-04 | 18000 |
| 64F-0    | 2.49E-04 | 0     |
|          | 3.11E-04 | 900   |
|          | 3.51E-04 | 1800  |
|          | 4.49E-04 | 3600  |
| 65F-II   | 3.32E-04 | 0     |
|          | 8.29E-04 | 900   |
|          | 1.81E-03 | 1800  |
|          | 2.76E-03 | 3600  |
| 66F-IV   | 1.22E-03 | 0     |
|          | 1.57E-03 | 900   |
|          | 1.94E-03 | 1800  |
|          | 2.49E-03 | 3600  |
| 67F-0    | 4.51E-04 | 0     |
|          | 4.80E-04 | 900   |
|          | 1.11E-03 | 1800  |
|          | 2.00E-03 | 3600  |
| 68-F-I   | 1.43E-03 | 0     |
|          | 1.61E-03 | 900   |
|          | 2.02E-03 | 1800  |
|          | 2.16E-03 | 3600  |
| 69-F-III | 6.27E-05 | 0     |
|          | 2.00E-04 | 900   |
|          | 2.78E-04 | 1800  |
|          | 3.27E-04 | 3600  |