

Table 1. Summary of polarimetric observations for different crystal types.

Part (a): Observations at near-horizontal radar beam angles, $\alpha < 25^\circ$.

| | Date | Time | α | T | Type | Size | Z_{eHH} | Z_{DR} | | | LDR_{HV} | | |
|----|----------|---------------|--------------|----------------------|---------------|-------------------|-----------|----------|-----|-----|------------|-------|-------|
| | | | | | | | | mean | 90% | max | mean | 90% | max |
| | (M/D/Y) | (UTC) | ($^\circ$) | ($^\circ\text{C}$) | | (μm) | (dBZ) | | | | | | |
| 1 | 02/18/97 | 160650-160655 | 2 | -15.5 | P1a | 250-600 | -7 | 4.6 | 5.3 | 5.8 | -18.2 | -15.7 | -14.4 |
| 2 | 02/18/97 | 155210-155213 | 3 | -13.2 | P1a | 600-1500 | -6 | 6.4 | 7.1 | 7.6 | -16.2 | -13.9 | -12.1 |
| 3 | 02/18/97 | 155326-155334 | 1 | -13.7 | P1d | 500-1300 | -10 | 7.0 | 7.7 | 8.6 | -15.3 | -12.4 | -10.6 |
| 4 | 02/18/97 | 160748-160752 | 8 | -15.6 | P1a / P1d | 500-1300 | -3 | 6.4 | 7.1 | 7.4 | -17.8 | -14.9 | -11.7 |
| 5 | 02/18/97 | 161949-161958 | 1 | -13.3 | P1a / P1d | 600-1500 | -4 | 6.2 | 7.2 | 8.0 | -16.0 | -13.7 | -11.1 |
| 6 | 04/02/97 | 202515-202530 | 2 | -6.2 | R4a | 800-1600 | 5 | 0.7 | 1.2 | 2.0 | <-22 | -20.4 | -17.5 |
| 7 | 03/28/97 | 001700-001705 | 1 | -13.2 | R4a | 800-1500 | 4 | 0.8 | 1.1 | 1.4 | <-22 | -19.1 | -16.3 |
| 8 | 04/02/97 | 182935-183045 | 1 | -11.5 | P1e | 3000-6000 | -14 | 2.3 | 2.9 | 3.8 | -14.2 | -12.6 | -10.5 |
| 9 | 04/02/97 | 183636-183700 | 1 | -13.8 | R2b | 2600-4400 | -5 | 0.7 | 1.3 | 1.8 | -17.0 | -15.0 | -12.8 |
| 10 | 09/06/95 | 173348-173358 | 1 | -5.6 | R1a / few R2b | 2100-5000 | 2 | 2.2 | 2.7 | 3.8 | -19.8 | -17.1 | -15.7 |

Table 1. Part (a) (continued.).

| | | | | | | | | | | | | | |
|----|----------|---------------|----|-------|---------------|-----------|-----|------|-----|-----|-------|-------|-------|
| 11 | 09/06/95 | 173750-173758 | 25 | -5.5 | R1a / few R2b | 1000-3000 | -10 | 2.2 | 2.8 | 3.6 | ND | ND | ND |
| 12 | 02/18/97 | 162047-162057 | 6 | -13.8 | P1d / R2b | 1000-4000 | 3 | 2.3 | 3.0 | 5.1 | -18.2 | -15.8 | -12.5 |
| 13 | 03/24/97 | 174440-174450 | 0 | -13.5 | P1a/P1d/R3b | 500-1500 | -3 | 2.1 | 2.8 | 3.5 | -17.4 | -15.1 | -12.0 |
| 14 | 02/18/97 | 162018-162024 | 4 | -13.6 | P1a/ R3b | 2000-3000 | 3 | 3.0 | 3.6 | 4.1 | -17.7 | -15.4 | -14.4 |
| 15 | 03/13/97 | 000540-000622 | 0 | -14.6 | P1e/R2b | 2000-4000 | 4 | 1.5 | 1.9 | 2.7 | -15.8 | -14.0 | -11.6 |
| 16 | 02/11/97 | 225340-225400 | 1 | -12.7 | P1a/CP1a | 400-800 | 3 | 1.6 | 2.0 | 2.5 | <-22 | -19.4 | -16.5 |
| 17 | 02/11/97 | 230730-230755 | 2 | -12.5 | P1a/CP1a/R4b | 400-1000 | 8 | 1.2 | 1.6 | 2.2 | -19.8 | -16.9 | -13.4 |
| 18 | 09/06/95 | 164520-164530 | 25 | 0.8 | ML | 700-1300 | 1 | 2.2 | 2.7 | 3.3 | -18.1 | -14.6 | -12.4 |
| 19 | 09/06/95 | 164550-164650 | 25 | — | ML | — | 15 | 1.2 | 1.8 | 2.8 | -13.3 | -11.2 | -9.1 |
| 20 | 03/23/97 | 001320-001400 | 3 | -14.3 | R4b/R4c | 3000-6000 | 13 | 0.9 | 1.5 | 2.6 | -12.7 | -9.3 | -6.4 |
| 21 | 04/04/97 | 210050-210110 | 3 | -6.5 | R4b/R4c | 3000-6000 | 19 | -0.5 | 0.4 | 1.5 | -9.7 | -7.4 | -5.7 |

Part (b): Observations at near-vertical radar beam angles, $\alpha > 65^\circ$.

| | Date | Time | α | T | Type | Size | Z_{eHH} | Z_{DR} | | | LDR_{HV} | | |
|-----|----------|---------------|--------------|----------------------|---------|-------------------|-----------|----------|-----|-----|------------|-------|-------|
| | (M/D/Y) | (UTC) | ($^\circ$) | ($^\circ\text{C}$) | | (μm) | (dBZ) | mean | 90% | max | mean | 90% | max |
| 22 | 02/18/97 | 154210-154230 | 87 | -12.7 | P1a | 600-1000 | -22 | 0.0 | 0.4 | 0.9 | ND | ND | ND |
| 23 | 02/18/97 | 155823-155842 | 88 | -13.6 | P1d | 500-1000 | -24 | 0.0 | 0.7 | 1.0 | ND | ND | ND |
| 24 | 02/18/97 | 154418-154435 | 89 | -13.4 | P1a/P1d | 500-1500 | -8 | -0.1 | 0.3 | 1.1 | <-22 | -20.2 | -17.4 |
| 25 | 04/02/97 | 182830-182930 | 89 | -12.0 | P1e | 3000-6000 | -3 | 0.2 | 0.5 | 1.0 | <-22 | -19.7 | -15.5 |
| 26* | 09/06/95 | 171505-171510 | 86 | -0.5 | R1a | 600-1500 | -9 | — | — | — | -19.3 | -16.4 | -14.1 |
| 27* | 09/06/95 | 172610-172614 | 87 | -5.5 | N1a | — | 7 | — | — | — | -18.7 | -16.5 | -14.3 |
| 28 | 03/02/97 | 213410-213420 | 88 | -40.0 | C1c/C2a | 300-800 | -14 | 0.3 | 0.6 | 1.3 | -19.4 | -17.2 | -14.5 |
| 29 | 02/11/97 | 222139-222228 | 74 | -28.8 | C1c/C1e | 300-600 | -18 | 0.1 | 0.5 | 1.3 | -19.0 | -16.3 | -12.3 |
| 30 | 02/11/97 | 222410-222440 | 85 | -28.0 | C2a | 400-800 | 2 | 0.1 | 0.5 | 1.1 | -22 | -19.1 | -16.2 |

Table 1. Part (b) (continued.).

| | | | | | | | | | | | | | |
|-----|----------|---------------|----|-------|--------------|-----------|----|------|-----|-----|-------|-------|-------|
| 31 | 02/11/97 | 230520-230535 | 89 | -12.2 | P1a/CP1a | 500-1200 | 6 | 0.0 | 0.3 | 0.8 | <-22 | -19.4 | -17.0 |
| 32 | 02/11/97 | 230800-230810 | 84 | -11.6 | P1a/Cp1a/R4a | 500-1200 | 8 | 0.0 | 0.4 | 0.8 | <-22 | -19.2 | -16.6 |
| 33 | 09/06/95 | 165850-165905 | 87 | — | ML | — | 15 | -0.1 | 0.3 | 0.9 | -14.0 | -11.4 | -9.6 |
| 34* | 09/06/95 | 172105-172110 | 89 | — | ML | — | 16 | — | — | — | -11.6 | -9.7 | -7.9 |
| 35 | 03/23/97 | 001045-001105 | 88 | -14.5 | R4b/R4c | 3000-6000 | 14 | 0.1 | 0.8 | 1.9 | -16.3 | -14.4 | -12.2 |
| 36 | 04/04/97 | 204800-204815 | 73 | — | R4b/R4c | — | 19 | -0.1 | 0.8 | 2.3 | -13.4 | -11.3 | -8.8 |

—= indicate no data

ML = indicate melting crystal in the melting layer

ND = indicate 'not detectable'

* = LDR values in these lines are LDR_{VH}