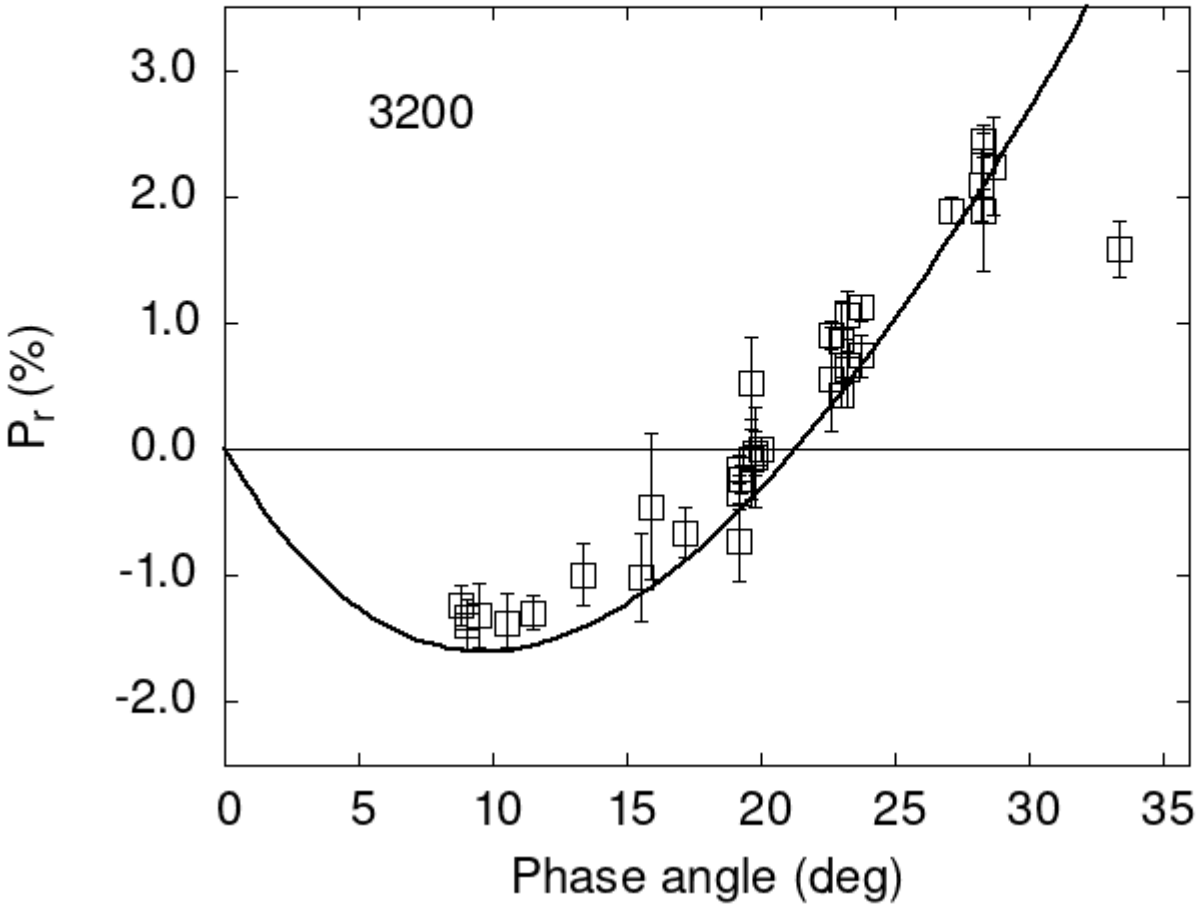
Catalogue of Asteroid Polarization Curves

Gil-Hutton (2023)



Polarimetric data:

The columns list the object number, the phase angle (degrees),P_r (%), its error, the filter used, and the reference code.

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3200 36.79  5.27 0.09 V f
3200 36.85  5.45 0.09 R f
3200 36.92  5.71 0.08 I f
3200 37.53  5.08 0.09 B f
3200 48.66 10.78 0.09 R f
3200 48.73 11.27 0.08 I f
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3200 48.91 10.19 0.11 B f
3200 49.13 10.68 0.09 V f
3200 49.19 10.90 0.08 R f
3200 49.31 11.33 0.08 I f
3200 49.49 10.14 0.11 B f
3200 49.70 10.78 0.08 V f
3200 49.77 11.03 0.09 R f
3200 49.85 11.55 0.08 I f
3200 50.04 10.41 0.09 B f
3200 50.26 11.00 0.08 V f
3200 50.32 11.34 0.08 R f
3200 50.41 11.89 0.09 I f
3200 50.59 10.95 0.09 B f
3200 50.82 11.66 0.08 V f
3200 50.87 11.89 0.08 R f
3200 50.96 12.40 0.08 I f
3200 51.17 11.13 0.09 B f
3200 62.57 16.93 0.11 V f
3200 62.66 17.27 0.13 R f
3200 62.73 18.21 0.11 I f
3200 62.86 16.66 0.09 B f
3200 62.99 17.37 0.11 V f
3200 63.08 17.87 0.13 R f
3200 63.16 18.94 0.11 I f
3200 63.25 17.92 0.11 V f
3200 63.33 18.46 0.13 R f
3200 63.41 19.37 0.12 I f
3200 63.51 17.85 0.11 B f
3200 63.66 18.37 0.12 V f
3200 63.74 18.78 0.13 R f
3200 63.83 19.60 0.10 I f
3200 63.92 18.39 0.12 V f
3200 64.03 18.56 0.13 R f
3200 64.11 19.35 0.11 I f
3200 64.21 17.30 0.10 B f
3200 64.36 18.10 0.12 V f
3200 64.44 18.55 0.13 R f
3200 64.52 19.65 0.10 I f
3200 64.62 18.30 0.12 V f
3200 64.75 18.55 0.13 R f
3200 64.86 19.51 0.09 I f
3200 65.00 17.65 0.12 B f
3200 65.18 18.54 0.12 V f
3200 65.29 19.12 0.14 R f
3200 77.04 25.94 0.12 V f
3200 77.12 26.65 0.14 R f
3200 77.21 27.17 0.12 I f
3200 77.42 24.56 0.14 B f
3200 77.63 25.56 0.11 V f
3200 77.72 25.04 0.25 R f

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3200 77.82 26.98 0.12 I f
3200 78.03 24.15 0.15 B f
3200 78.27 25.53 0.12 V f
3200 78.34 26.42 0.13 R f
3200 78.42 27.68 0.12 I f
3200 78.51 26.39 0.12 V f
3200 78.57 27.25 0.13 R f
3200 78.66 28.41 0.11 I f
3200 78.76 27.20 0.13 V f
3200 78.82 27.95 0.14 R f
3200 101.6 36.23 0.18 V f
3200 101.6 37.38 0.19 R f
3200 101.6 37.44 0.17 R f
3200 101.7 37.58 0.11 R f
3200 101.7 37.55 0.28 R f
3200 101.8 38.40 0.12 V f
3200 101.8 38.54 0.12 V f
3200 101.8 38.68 0.12 V f
3200 101.9 38.59 0.13 V f
3200 101.9 38.68 0.12 V f
3200 101.9 39.22 0.13 V f
3200 109.3 39.15 0.43 V f
3200 109.4 39.41 0.28 V f
3200 109.5 39.73 0.39 V f
3200 109.5 40.97 0.27 V f
3200 109.9 41.36 0.15 V f
3200 110.0 41.22 0.14 V f
3200 110.0 41.53 0.16 V f
3200 110.1 40.99 0.19 V f
3200 116.2 41.91 0.29 V f
3200 15.90 -0.45 0.58 R g
3200 15.50 -1.01 0.35 R g
3200  9.00 -1.33 0.15 R g
3200  8.80 -1.23 0.16 R g
3200 13.40 -0.99 0.25 R g
3200 22.60  0.55 0.41 R g
3200 23.00  0.85 0.32 R g
3200 10.50 -1.37 0.23 R g
3200  9.50 -1.31 0.25 R g
3200  9.00 -1.39 0.20 R g
3200 11.50 -1.29 0.13 R g
3200 17.20 -0.66 0.20 R g
3200 23.20  0.66 0.11 R g
3200 32.40  3.55 0.32 R g
3200 19.30 -0.24 0.11 R g
3200 19.20 -0.16 0.11 R g
3200 20.00  0.00 0.10 R g
3200 22.60  0.90 0.11 R g
3200 27.10  1.89 0.10 R g
3200 28.67  2.24 0.39 V e
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3200 28.22  2.09 0.28 V e
3200 19.79 -0.06 0.39 V e
3200 19.79 -0.03 0.17 R e
3200 19.61 -0.08 0.32 V e
3200 19.61  0.52 0.36 R e
3200 19.21 -0.73 0.31 V e
3200 19.21 -0.34 0.14 R e
3200 23.25  0.64 0.31 V e
3200 23.25  1.06 0.19 R e
3200 23.78  0.74 0.17 V e
3200 23.78  1.12 0.10 R e
3200 28.34  1.89 0.48 R e
3200 28.34  2.28 0.22 V e
3200 28.34  2.44 0.13 R e
3200 47.39 10.69 0.74 R e
3200 47.91 10.39 0.85 V e
3200 61.65 17.84 1.02 R e
3200 90.63 32.90 0.70 V e
3200 100.1 37.00 0.40 V e
3200 134.9 32.00 3.00 V e
3200 52.21 12.66 0.50 V e
3200 23.00  0.43 0.10 V a
3200 33.40  1.58 0.22 V a
3200 36.79  5.27 0.03 V a
3200 36.85  5.45 0.03 R a
3200 47.48  9.89 0.06 R a
3200 47.55  9.86 0.06 R a
3200 47.63  9.89 0.07 R a
3200 47.69 10.01 0.07 R a
3200 47.76 10.04 0.07 R a
3200 47.83 10.03 0.07 R a
3200 47.91 10.07 0.07 R a
3200 47.98 10.07 0.07 R a
3200 47.98 10.09 0.06 R a
3200 48.12 10.10 0.06 R a
3200 48.20 10.18 0.06 R a
3200 48.28 10.32 0.07 R a
3200 48.36 10.24 0.07 R a
3200 48.43 10.40 0.08 R a
3200 48.52 10.54 0.08 R a
3200 48.59 10.46 0.09 R a
3200 48.59 10.50 0.04 V a
3200 48.67 10.62 0.10 R a
3200 49.13 10.68 0.03 V a
3200 48.74 10.74 0.07 R a
3200 48.82 10.86 0.06 R a
3200 48.89 10.81 0.06 R a
3200 47.98 10.83 0.06 R a
3200 49.05 10.85 0.06 R a
3200 49.12 10.86 0.06 R a
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```
3200 49.22 10.80 0.06 R a
3200 49.30 10.85 0.06 R a
3200 49.36 10.75 0.06 R a
3200 49.39 10.65 0.06 R a
3200 49.54 10.87 0.06 R a
3200 49.70 10.78 0.02 V a
3200 50.26 11.01 0.03 V a
3200 50.82 11.69 0.03 V a
3200 48.66 10.78 0.04 R a
3200 49.19 10.90 0.02 R a
3200 49.77 11.03 0.04 R a
3200 50.32 11.34 0.03 R a
3200 50.87 11.90 0.02 R a
3200 57.90 15.02 0.13 V a
3200 62.57 16.93 0.08 V a
3200 62.99 17.37 0.08 V a
3200 63.25 17.92 0.08 V a
3200 63.66 18.37 0.09 V a
3200 63.92 18.39 0.09 V a
3200 64.36 18.10 0.09 V a
3200 64.62 18.30 0.09 V a
3200 65.18 18.54 0.09 V a
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Polarization Curve Parameters:

The polarimetric parameters were obtained fitting the observations to a polarization curve using the function:

$$P_r(\alpha) = Coe_1 \times \left[\exp\left(-\frac{\alpha}{Coe_2}\right) - 1\right] + Coe_3 \times \alpha,$$

where α is the phase angle in degrees. The minimum of the polarization curve is identified by Pmin, Phmin is the phase angle where Pmin is reached, Ph0 is the inversion angle, and k is the slope of the polarization curve at Ph0.

```
#
#      Coe1    eCoe1     Coe2    eCoe2     Coe3    eCoe3
#   17.2523   0.0911  19.0463   0.1941   0.5449   0.0010
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#      9.68  0.14 -1.600  0.066 21.32  0.16 0.2492 0.0019
```