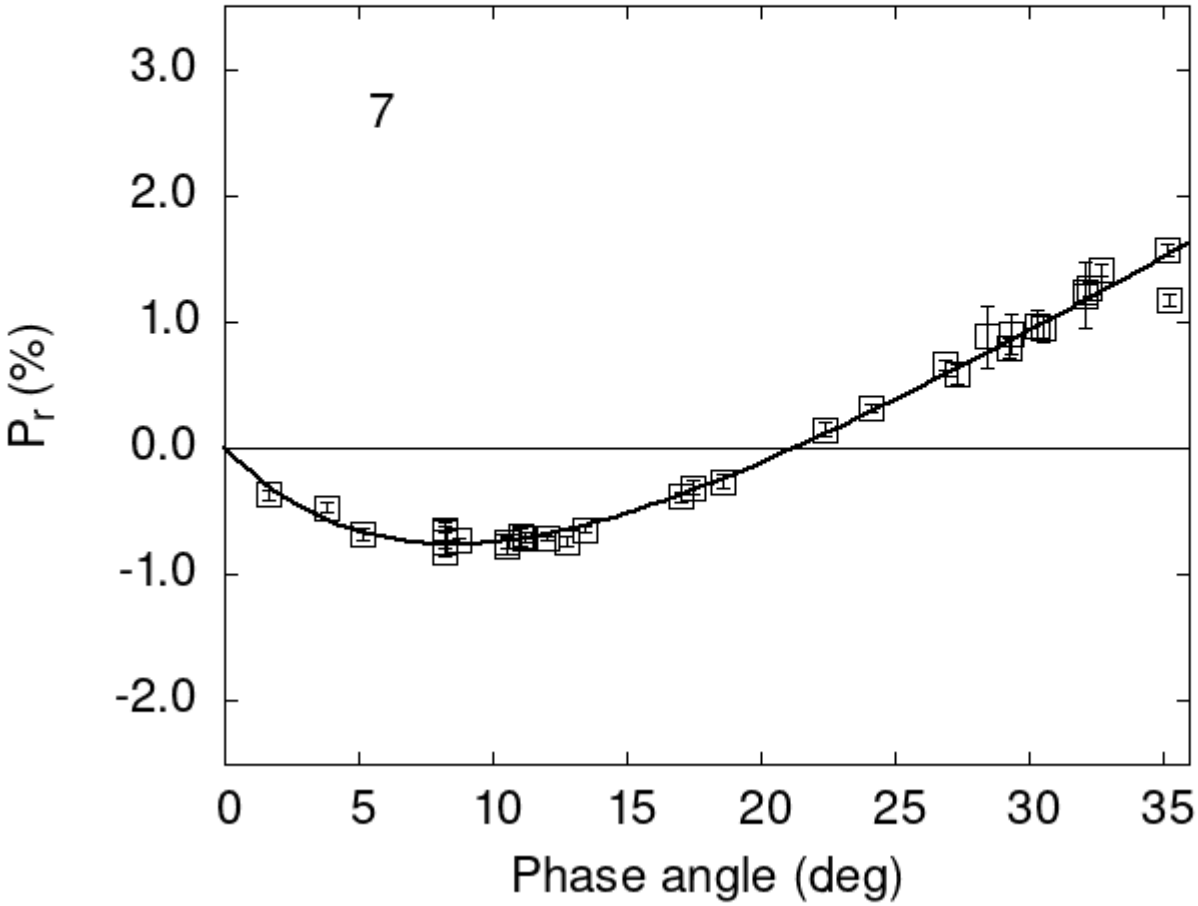
Catalogue of Asteroid Polarization Curves

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.

```
7  8.24 -0.75 0.08 V f
7  8.24 -0.67 0.08 R f
7 29.29  0.79 0.08 V f
7 30.29  0.97 0.12 V f
7 30.53  0.95 0.11 V f
7  5.13 -0.68 0.05 V a
```

```
7 22.41  0.15 0.05 V a
7 35.16  1.57 0.05 V a
7 35.24  1.17 0.05 V a
7 32.72  1.41 0.05 G a
7 32.23  1.26 0.06 G a
7 32.15  1.24 0.06 G a
7 32.14  1.21 0.26 R a
7 29.32  0.90 0.16 G a
7 28.46  0.88 0.24 G a
7 27.33  0.58 0.08 G a
7 13.42 -0.64 0.02 G a
7  1.64 -0.37 0.04 G a
7 11.03 -0.70 0.07 G a
7 17.00 -0.38 0.04 G a
7 17.44 -0.31 0.06 G a
7 18.58 -0.26 0.05 G a
7 24.12  0.32 0.03 G a
7 26.90  0.66 0.04 G a
7  8.75 -0.73 0.02 G a
7 11.20 -0.71 0.04 V a
7 12.00 -0.71 0.02 V a
7 12.80 -0.74 0.04 V a
7  3.80 -0.47 0.04 V a
7 10.50 -0.74 0.05 V a
7 10.50 -0.78 0.06 R a
7  8.24 -0.64 0.03 V a
7  8.24 -0.82 0.03 R a
```

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
#    2.8411   0.1785   8.4589   0.6062   0.1228   0.0052
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#      8.51  0.64 -0.757  0.143 21.26  0.42 0.0956 0.0062
```