Catalogue of Asteroid Polarization Curves
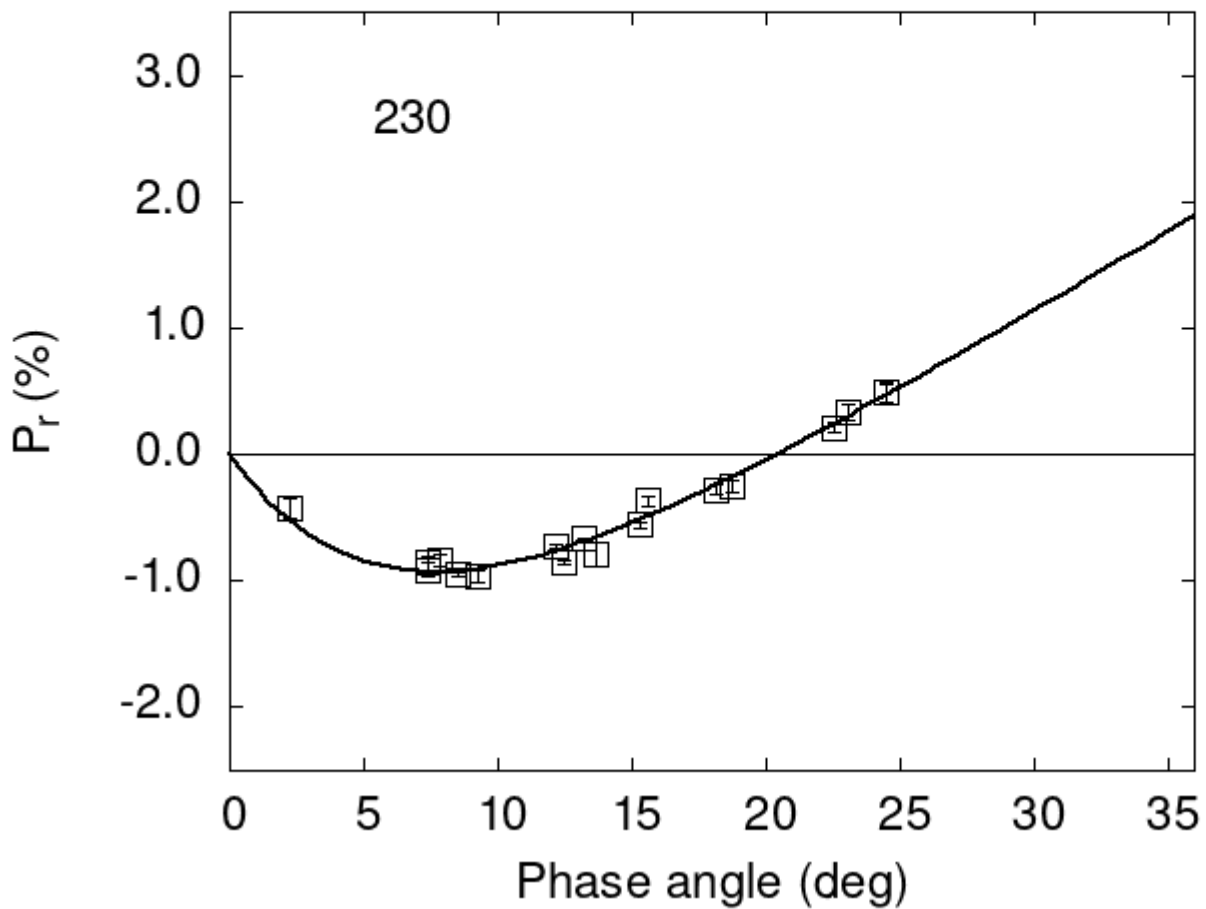
Gil-Hutton (2023)

Polarimetric data:

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

```
230   2.26 -0.43 0.08 V f
230 13.64 -0.79 0.09 V f
230 22.55  0.21 0.04 G a
230 18.75 -0.25 0.05 G a
230 18.15 -0.28 0.04 G a
230  8.50 -0.95 0.02 G a
```

```
230   7.81 -0.84 0.05 G a
230   9.27 -0.96 0.05 G a
230  23.10  0.33 0.06 G a
230   7.40 -0.86 0.06 V a
230   7.40 -0.91 0.05 R a
230  12.20 -0.73 0.02 V a
230  12.50 -0.85 0.02 V a
230  13.20 -0.67 0.01 V a
230  15.60 -0.37 0.04 V a
230  15.30 -0.56 0.03 V a
230  24.50  0.49 0.08 V a
230  24.50  0.49 0.07 V 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
#    2.7083    0.1942   6.3217    0.5427   0.1272    0.0079
#
#     Phmin    err    Pmin     err  Ph0     err    k       err
#      7.68   0.61  -0.928   0.171 20.44   0.36 0.1103  0.0087
```