Catalogue of Asteroid Polarization Curves
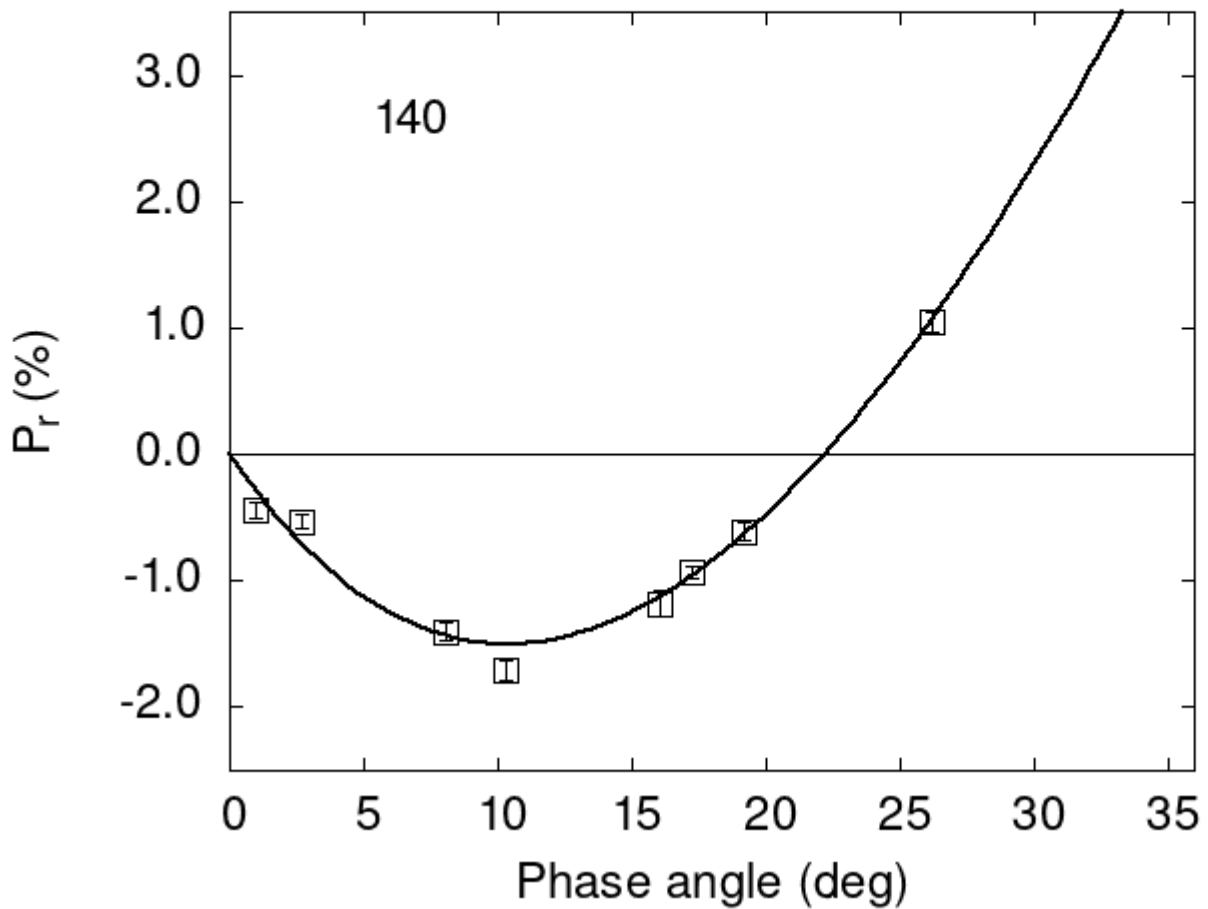
Gil-Hutton (2023)

Polarimetric data:

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

```
140 10.34 -1.71 0.08 V f
140 16.03 -1.18 0.10 V f
140  1.00 -0.44 0.06 V a
140  2.70 -0.53 0.06 V a
140 17.28 -0.93 0.05 V a
140 19.19 -0.61 0.07 V a
```

```
140   8.10 -1.40 0.07 V a
140 26.20  1.04 0.08 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
#   26.7247   1.0136   27.2828    0.7474    0.6701    0.0188
#
#     Phmin   err    Pmin     err   Ph0    err    k      err
#     10.36  1.37  -1.502   0.420 22.20   0.17 0.2360 0.0251
```