Catalogue of Asteroid Polarization Curves
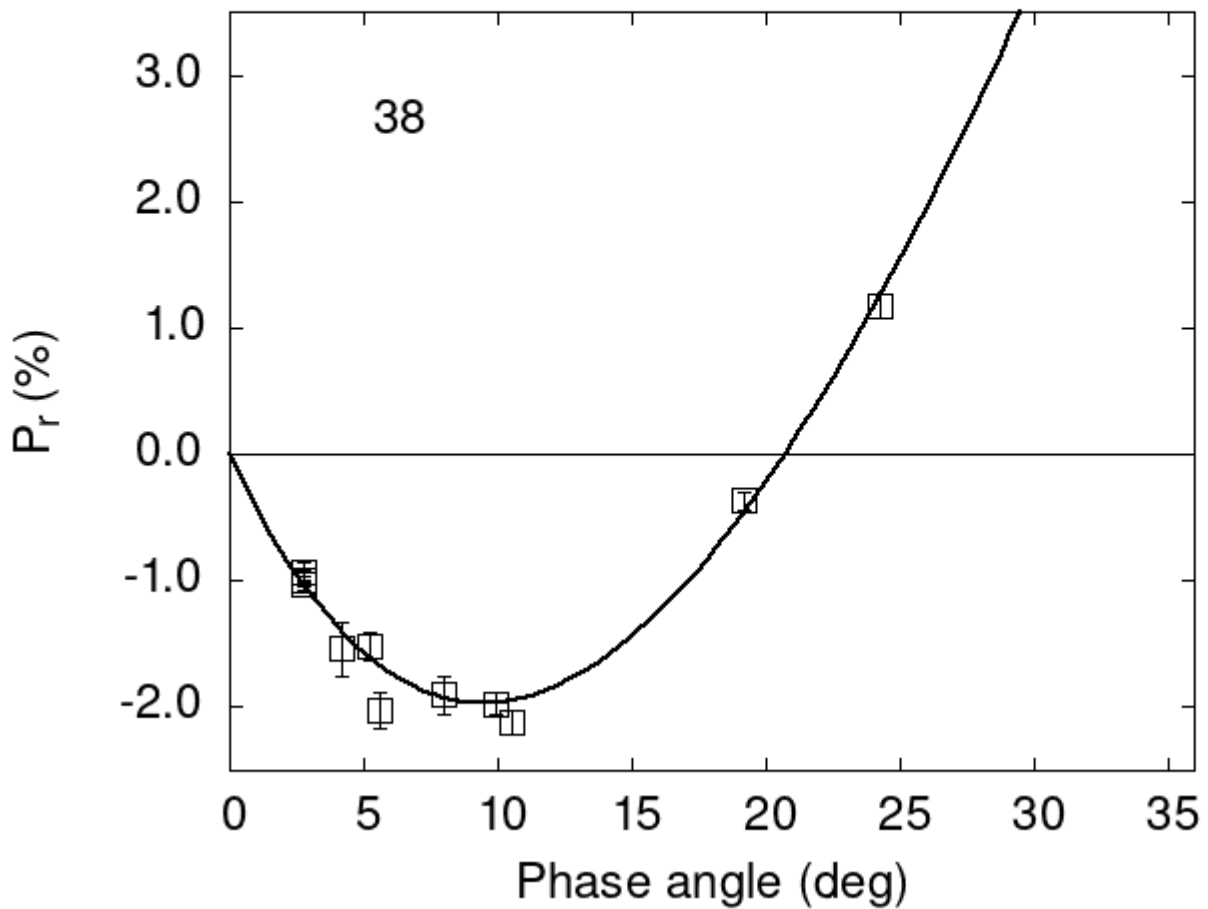
Gil-Hutton (2023)

Polarimetric data:

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

```
38   2.74  -0.93 0.08 V f
38   2.74  -1.00 0.08 R f
38   5.20  -1.52 0.11 V f
38   5.58  -2.03 0.14 V f
38   7.97  -1.90 0.15 V f
38   9.96  -1.97 0.09 V f
```

```
38 10.52 -2.12 0.10 V f
38 24.25  1.17 0.09 V f
38  2.74 -1.02 0.03 V a
38  2.74 -1.00 0.04 R a
38  4.20 -1.54 0.21 V h
38 19.20 -0.37 0.07 V h
```

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
#   22.7679    0.9635   19.3975    0.4690    0.7210    0.0225
#
#     Phmin    err    Pmin      err   Ph0     err    k       err
#      9.45   1.05  -1.967   0.459  20.73   0.13  0.3179  0.0282
```