Catalogue of Asteroid Polarization Curves
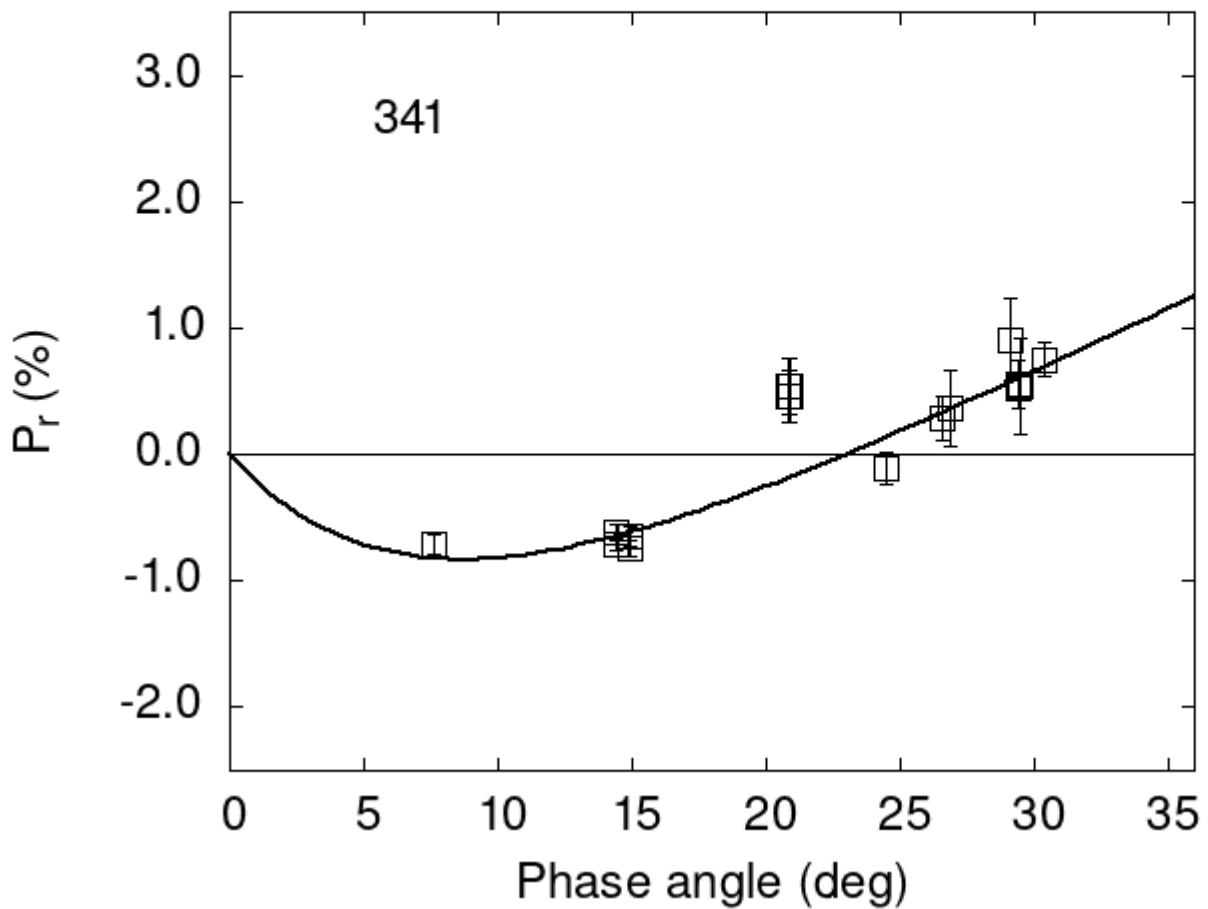
Gil-Hutton (2023)

Polarimetric data:

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

```
341 26.62  0.29 0.17 V f
341 30.43  0.75 0.13 V f
341 20.88  0.54 0.22 V f
341 20.88  0.46 0.20 R f
341 29.11  0.91 0.32 R f
341 29.42  0.55 0.19 V f
```

```
341 29.42   0.53 0.09 R f
341 26.89   0.37 0.30 R a
341 29.52   0.54 0.38 R a
341 29.11   0.91 0.32 R a
341 14.42 -0.71 0.05 V a
341 14.42 -0.62 0.06 R a
341 14.94 -0.74 0.06 V a
341 14.94 -0.65 0.08 R a
341 20.87   0.54 0.22 V b
341 20.87   0.46 0.20 R b
341 29.42   0.55 0.19 V b
341 29.42   0.53 0.09 R b
341  7.60 -0.71 0.08 V h
341 24.50 -0.11 0.13 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
#   2.4658   0.3438   7.2349   1.5222   0.1026   0.0105
#
#    Phmin   err    Pmin    err   Ph0    err    k      err
#     8.68   1.29  -0.832  0.318 23.03  0.45 0.0885 0.0125
```