Catalogue of Asteroid Polarization Curves
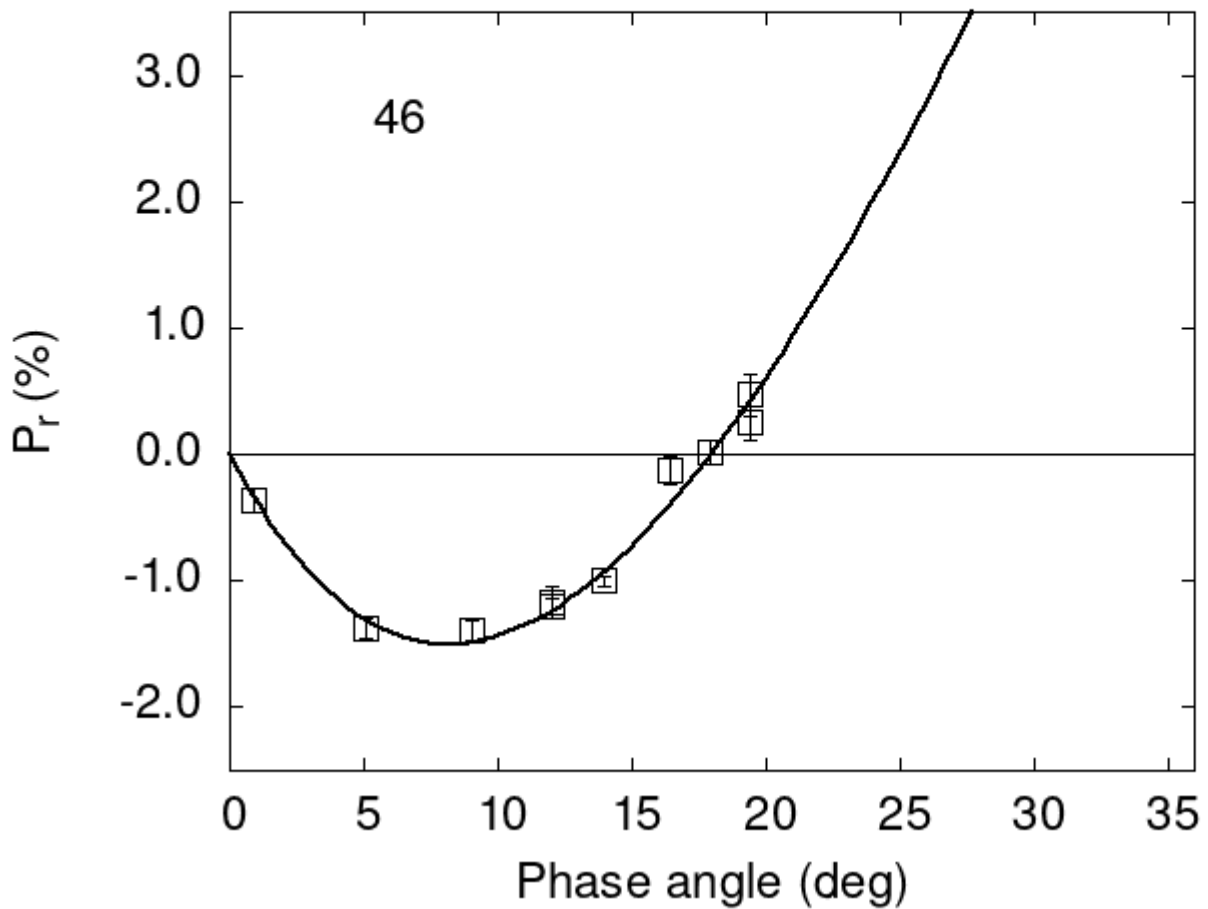
Gil-Hutton (2023)

Polarimetric data:

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

```
46  0.86 -0.36 0.09 V f
46 16.42 -0.12 0.11 V f
46  9.00 -1.39 0.08 V a
46 12.06 -1.17 0.13 V a
46 12.06 -1.20 0.06 R a
46  5.10 -1.37 0.08 V a
```

```
46 14.00 -1.00 0.04 V a
46 19.40  0.47 0.17 V a
46 19.40  0.25 0.13 R a
46 17.90  0.02 0.10 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
#   16.0738   0.5930   15.9916   0.6661   0.6033   0.0177
#
#    Phmin   err   Pmin    err  Ph0    err   k       err
#     8.16  0.82 -1.501  0.345 17.99  0.14 0.2770 0.0215
```