Catalogue of Asteroid Polarization Curves
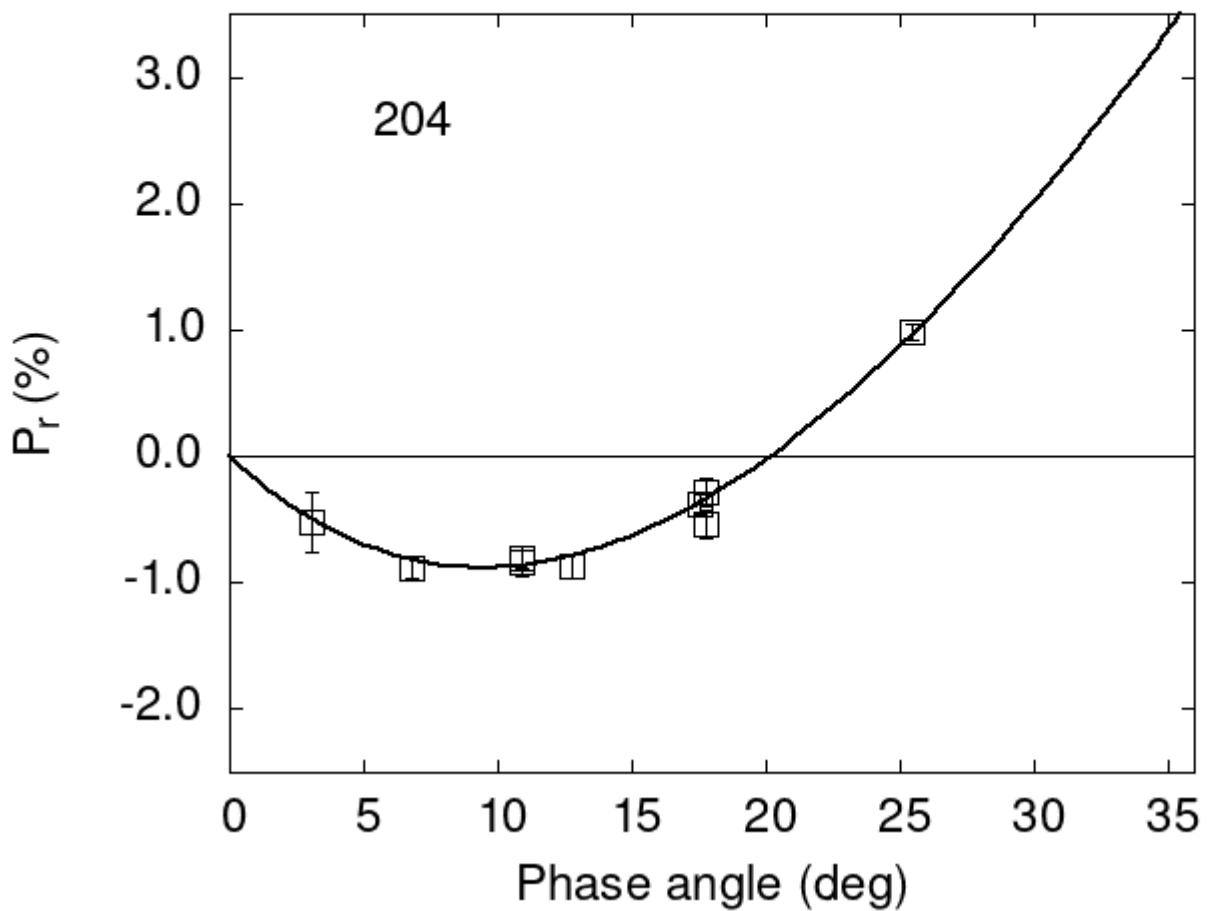
Gil-Hutton (2023)

Polarimetric data:

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

```
204  3.05 -0.52 0.24 V f
204  6.81 -0.89 0.08 V f
204 10.93 -0.83 0.12 V f
204 10.93 -0.81 0.07 R f
204 17.53 -0.38 0.08 V a
204 17.53 -0.38 0.10 R a
```

```
204 17.77 -0.28 0.11 V a
204 17.77 -0.54 0.11 R a
204 25.50  0.98 0.06 V a
204 10.93 -0.83 0.12 V b
204 10.93 -0.81 0.07 R b
204 12.80 -0.87 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
#    17.8139   0.6754   26.8089   0.8002    0.4667    0.0124
#
#     Phmin    err    Pmin     err   Ph0     err    k       err
#      9.47   1.35  -0.882   0.268 20.21   0.26 0.1540 0.0173
```