Catalogue of Asteroid Polarization Curves
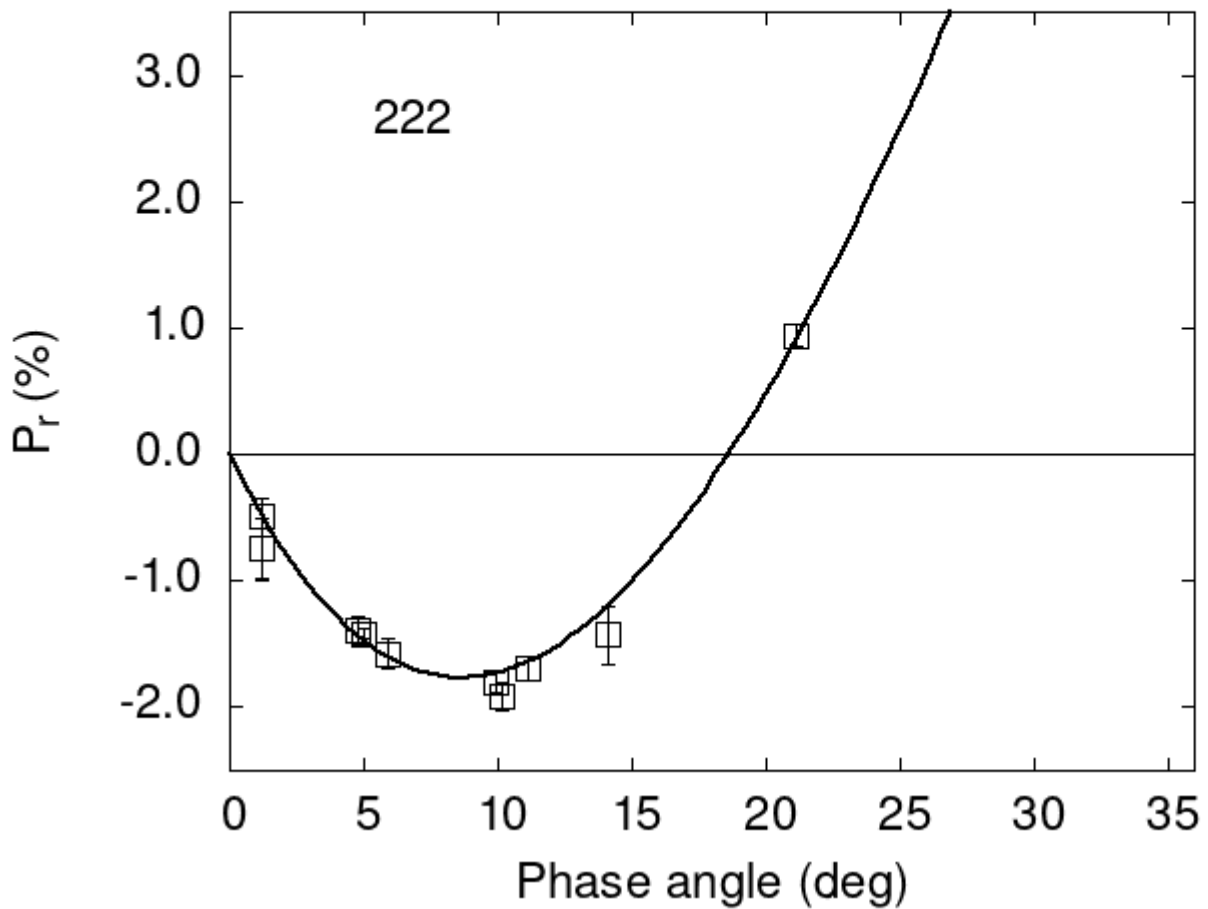
Gil-Hutton (2023)

Polarimetric data:

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

```
222   4.81 -1.39 0.11 V f
222   5.91 -1.58 0.12 V f
222   9.90 -1.80 0.09 V f
222 10.16 -1.92 0.11 V f
222 11.13 -1.69 0.10 V f
222 14.14 -1.43 0.23 V f
```

```
222  1.18 -0.74 0.24 V f
222  1.18 -0.49 0.15 R f
222  5.00 -1.42 0.04 V a
222  1.18 -0.75 0.24 V b
222  1.18 -0.49 0.15 R b
222 21.10  0.94 0.09 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
#   28.3147    0.9704  21.4604    0.5423    0.8817    0.0205
#
#    Phmin    err    Pmin     err   Ph0     err    k       err
#     8.65   0.95  -1.766   0.415 18.63    0.12 0.3280 0.0280
```