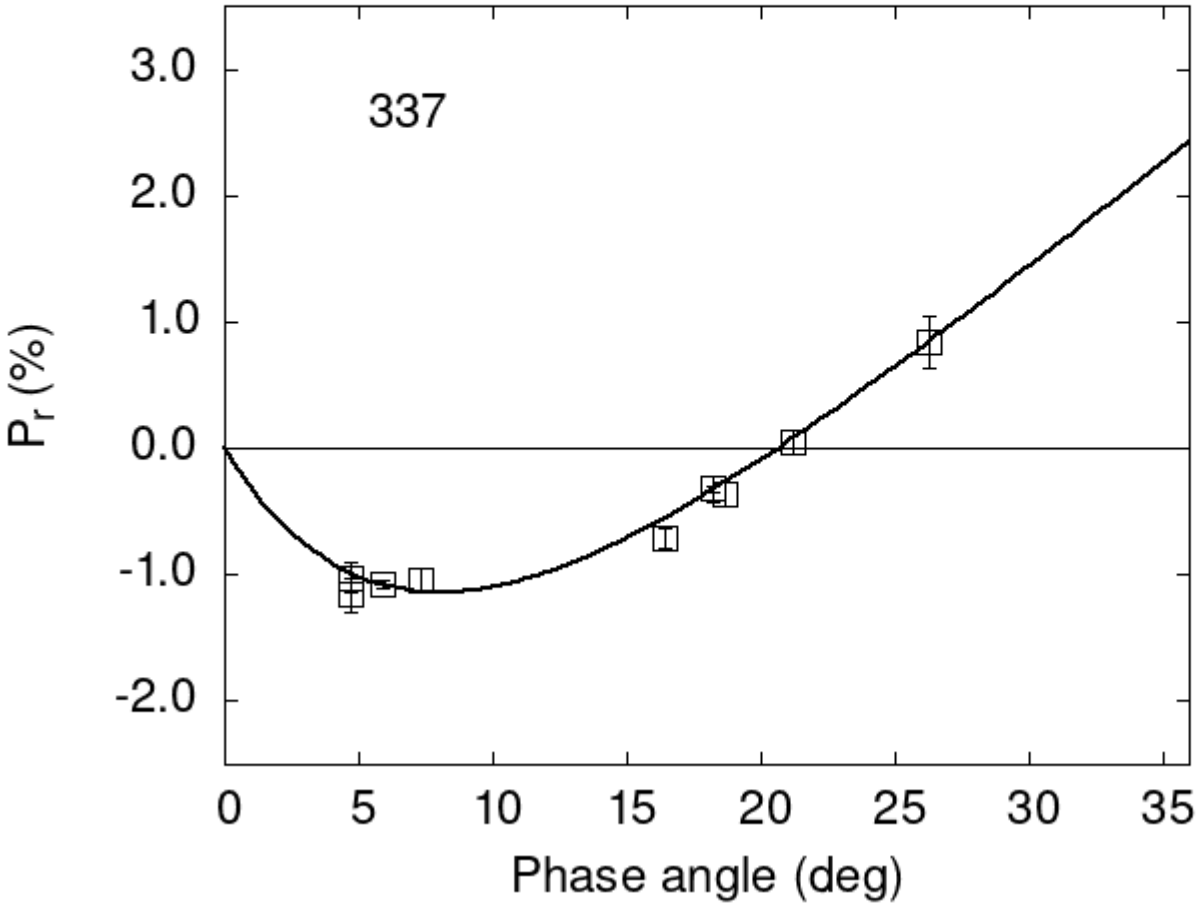
Catalogue of Asteroid Polarization Curves

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.

```
337  5.90 -1.08 0.03 R d
337  7.31 -1.04 0.09 V f
337 16.44 -0.71 0.08 V f
337 18.22 -0.32 0.10 R f
337 18.68 -0.36 0.09 V f
337 21.21  0.05 0.09 V f
```

```
337 26.27  0.84 0.20 V f
337  4.70 -1.02 0.12 V a
337  4.70 -1.16 0.13 R a
337 18.22 -0.32 0.02 V a
```

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
#    3.7304   0.3756   7.1962   0.6470   0.1702   0.0155
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#      8.02  0.98 -1.142  0.307 20.67  0.28 0.1409 0.0165
```