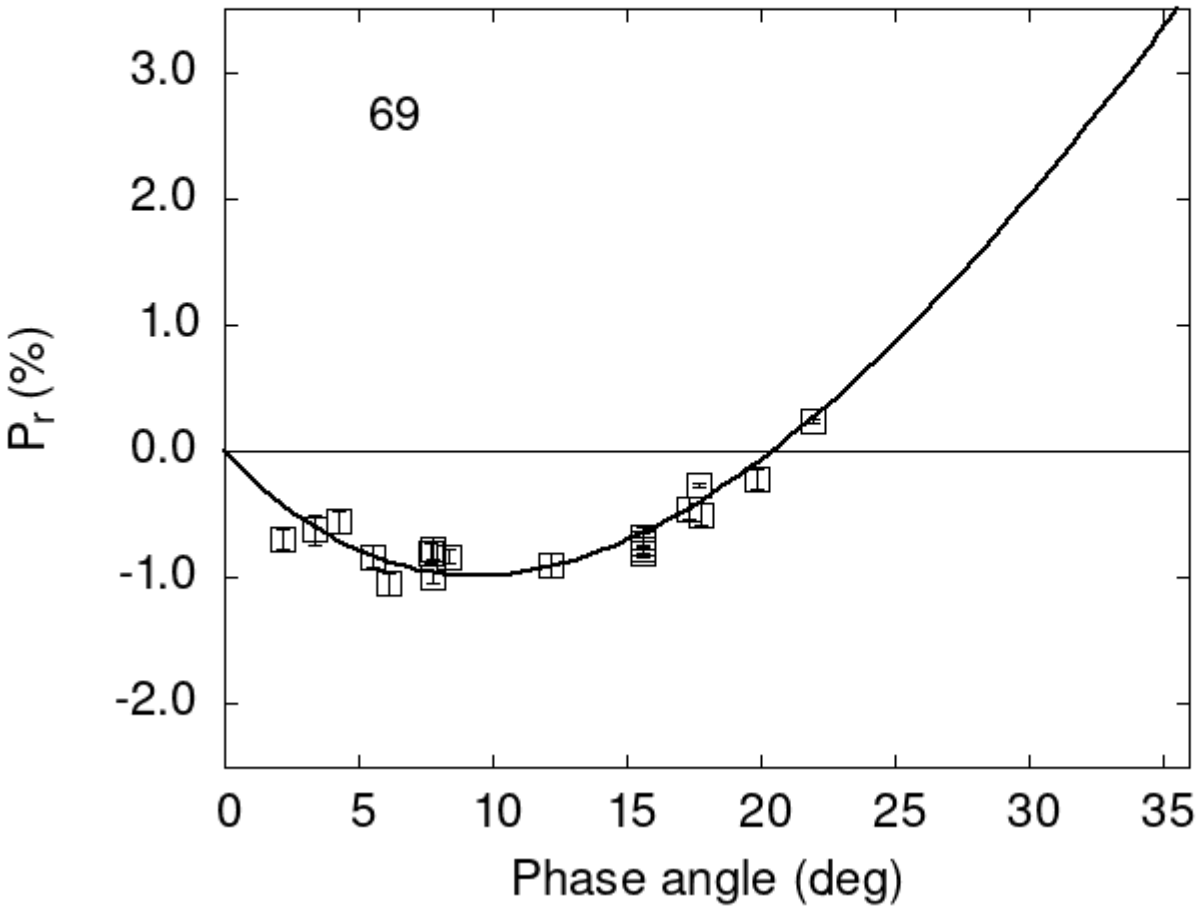
Catalogue of Asteroid Polarization Curves

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.

```
69 17.30 -0.45 0.08 V d
69  2.15 -0.69 0.08 V f
69  3.37 -0.62 0.12 V f
69  4.25 -0.56 0.09 V f
69  5.54 -0.83 0.08 V f
69  6.13 -1.05 0.09 V f
```

```
69 12.16 -0.90 0.09 V f
69 15.64 -0.68 0.08 V f
69 15.64 -0.73 0.08 R f
69 17.77 -0.50 0.09 V f
69 19.86 -0.22 0.08 V f
69  7.78 -0.77 0.09 V a
69  7.78 -1.00 0.05 R a
69 17.70 -0.27 0.02 V a
69  7.70 -0.80 0.08 V a
69  8.40 -0.83 0.05 V a
69 15.64 -0.80 0.03 V a
69 15.64 -0.77 0.03 R a
69 21.95  0.24 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
#   12.8187   0.4380  20.6324   0.5452   0.3942   0.0086
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#      9.39  0.89 -0.985  0.204 20.43  0.24 0.1634 0.0116
```