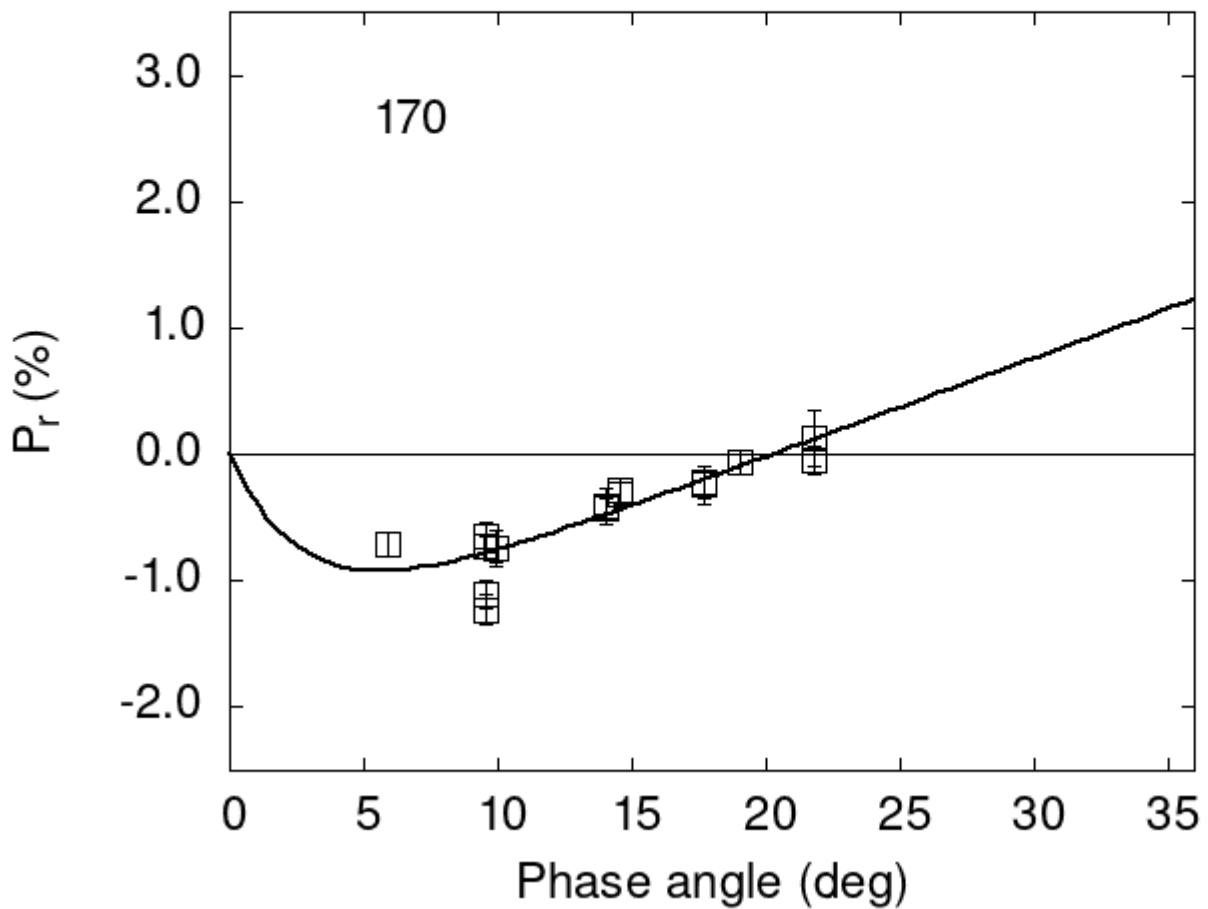


# Catalogue of Asteroid Polarization Curves

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.

```
170  5.89 -0.71 0.09 V f
170 19.02 -0.06 0.09 V f
170 14.06 -0.41 0.14 V f
170 14.06 -0.42 0.08 R f
170 14.57 -0.29 0.10 V f
170 14.57 -0.32 0.10 R f
```

```

170 17.69 -0.22 0.13 V f
170 17.69 -0.24 0.15 R f
170 21.80 0.13 0.22 V f
170 21.80 -0.04 0.11 R f
170 9.55 -1.23 0.12 V f
170 9.55 -1.10 0.11 R f
170 9.58 -0.65 0.12 V f
170 9.58 -0.73 0.09 R f
170 9.97 -0.74 0.14 V f
170 9.97 -0.75 0.11 R f
170 14.58 -0.29 0.10 V b
170 14.58 -0.32 0.10 R b
170 14.06 -0.41 0.14 V b
170 14.06 -0.42 0.08 R b
170 9.55 -1.23 0.12 V b
170 9.55 -1.10 0.11 R b
170 21.80 0.13 0.22 V b
170 21.80 -0.04 0.11 R b
170 9.97 -0.74 0.14 V b
170 9.97 -0.75 0.11 R b
170 9.58 -0.65 0.12 V b
170 9.58 -0.73 0.09 R b
170 17.69 -0.22 0.13 V b
170 17.69 -0.24 0.15 R b

```

## 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  $\alpha$  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
#      1.5882    0.1787    2.8894    0.9779    0.0781    0.0101
#
#      Phmin    err    Pmin    err    Ph0    err    k      err
#      5.64    1.05 -0.922  0.221  20.31  0.52  0.0776  0.0101

```