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.

 357
 8.40
 -1.33
 0.11
 V a

 357
 4.00
 -1.01
 0.07
 V a

 357
 7.60
 -1.52
 0.13
 V a

 357
 7.70
 -1.25
 0.14
 V a

 357
 16.70
 -1.23
 0.11
 V a

 357
 3.50
 -0.53
 0.06
 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	eCoe	L	Coe2	eCoe2	(Coe3	eCoe3
#	10.4018	0.5389	9 18.	7918	1.4081	0.2	2908	0.0164
#								
#	Phmin	err	Pmin	err	Ph0	err	k	err
#	12.09	1.53 -1	1.419	0.418	27.47	0.25	0.1625	0.0183