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.

50 0.66 0.82 0.48 V f 50 12.96 -1.64 0.10 V f 50 12.96 -0.67 0.08 R f 50 18.33 -0.76 0.10 V f 50 18.40 -0.72 0.08 V a 50 12.96 -1.66 0.05 V a

50 29.10 3.04 0.11 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	eCoe	1	Coe2	eCoe2	(Coe3	eCoe3
#	36.6250	1.1722	2 29.	6404	0.6316	0.0	3880	0.0205
#								
#	Phmin	err	Pmin	err	Ph0	err	k	err
#	9.79	1.24 -2	1.609	0.428	20.79	0.15	0.2753	0.0286