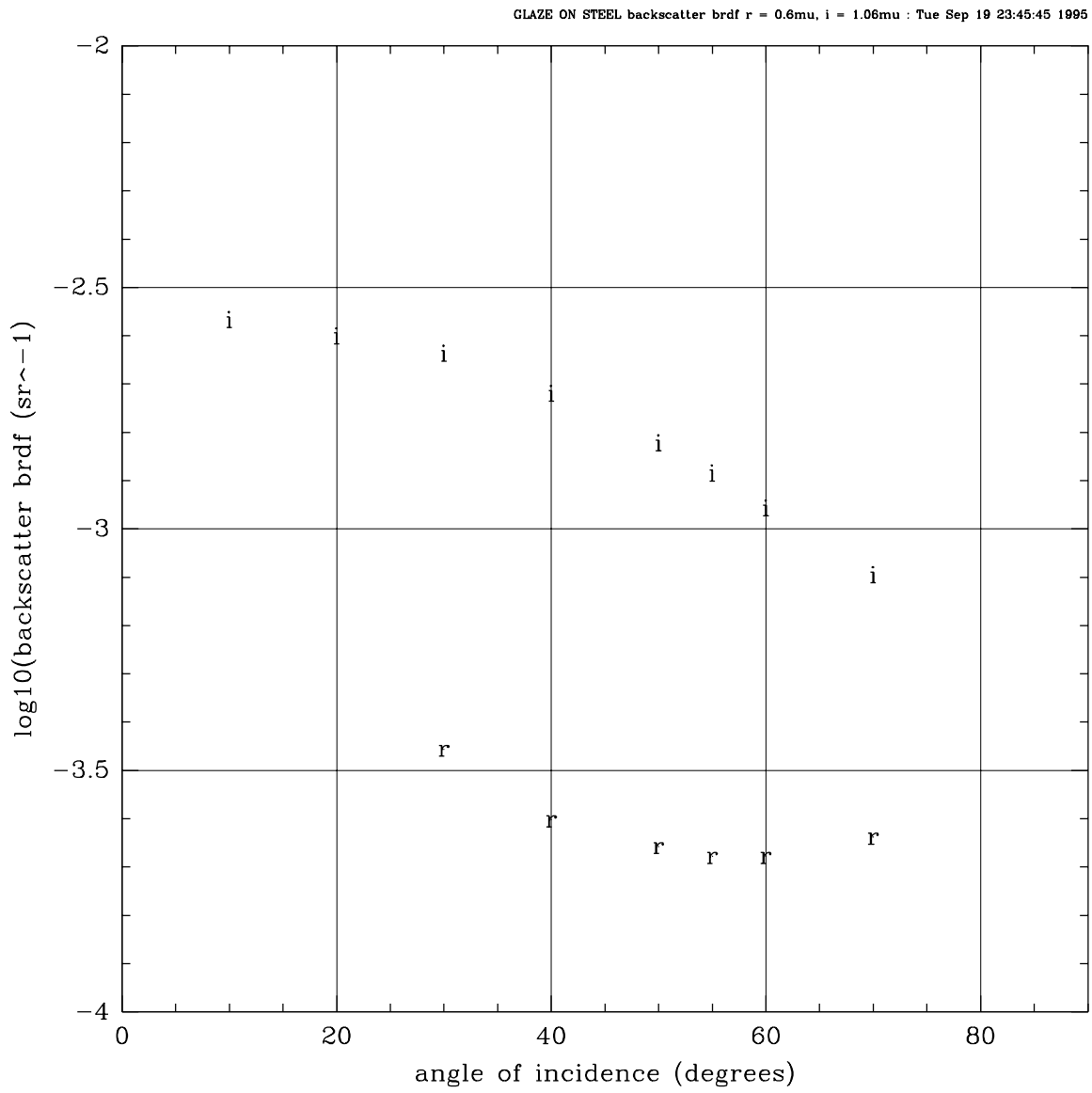

Figure 1 Glaze on steel backscatter brdf at 0.63 (r) and 1 (i) micron wavelength.

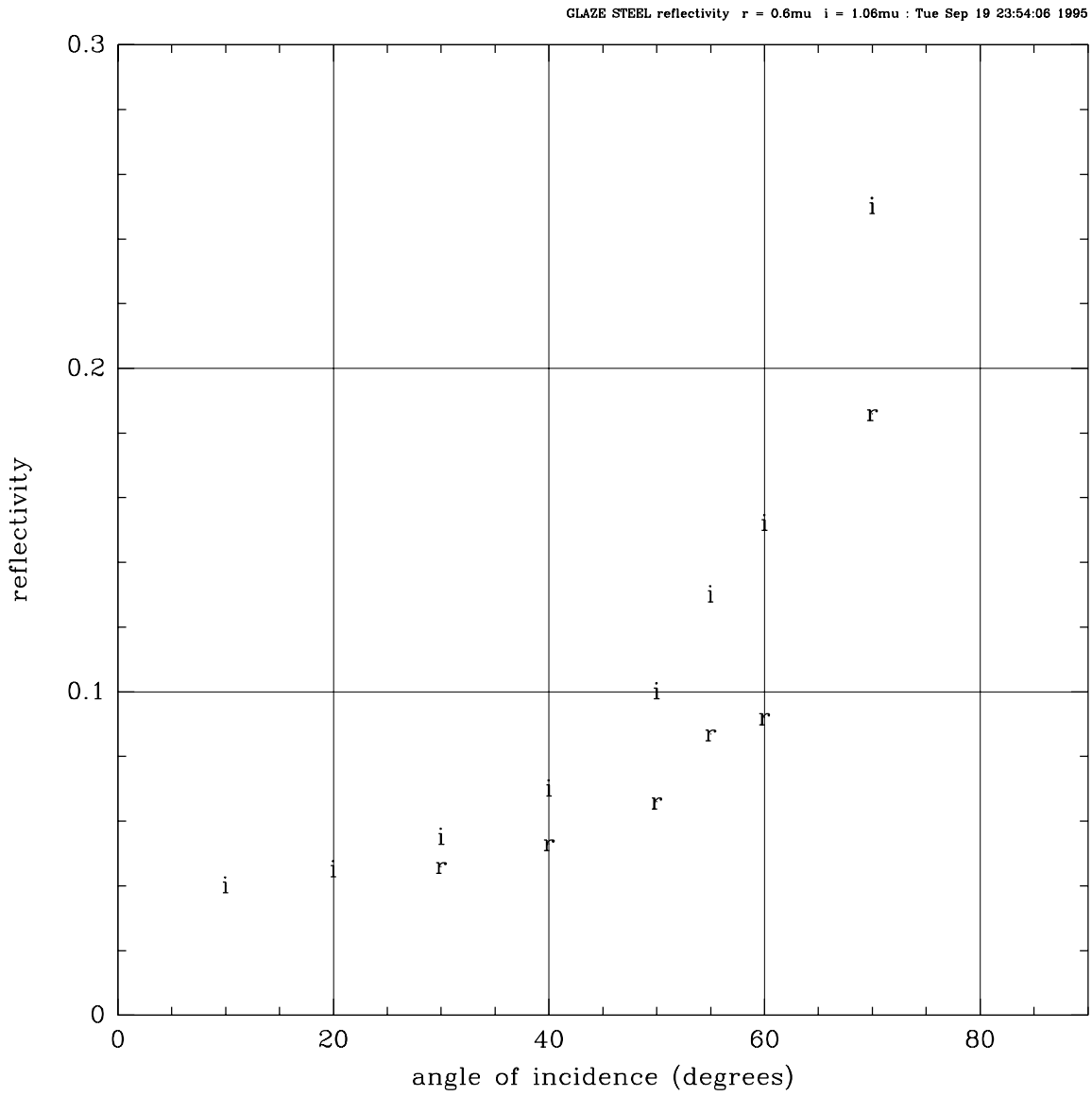

Figure 2 S polarization reflectivity of the glaze on steel. The p polarization reflectivity vanishes near the Brewster angle so between 40 to 60 degrees incidence the average reflectivity is close to 1/2 that plotted.

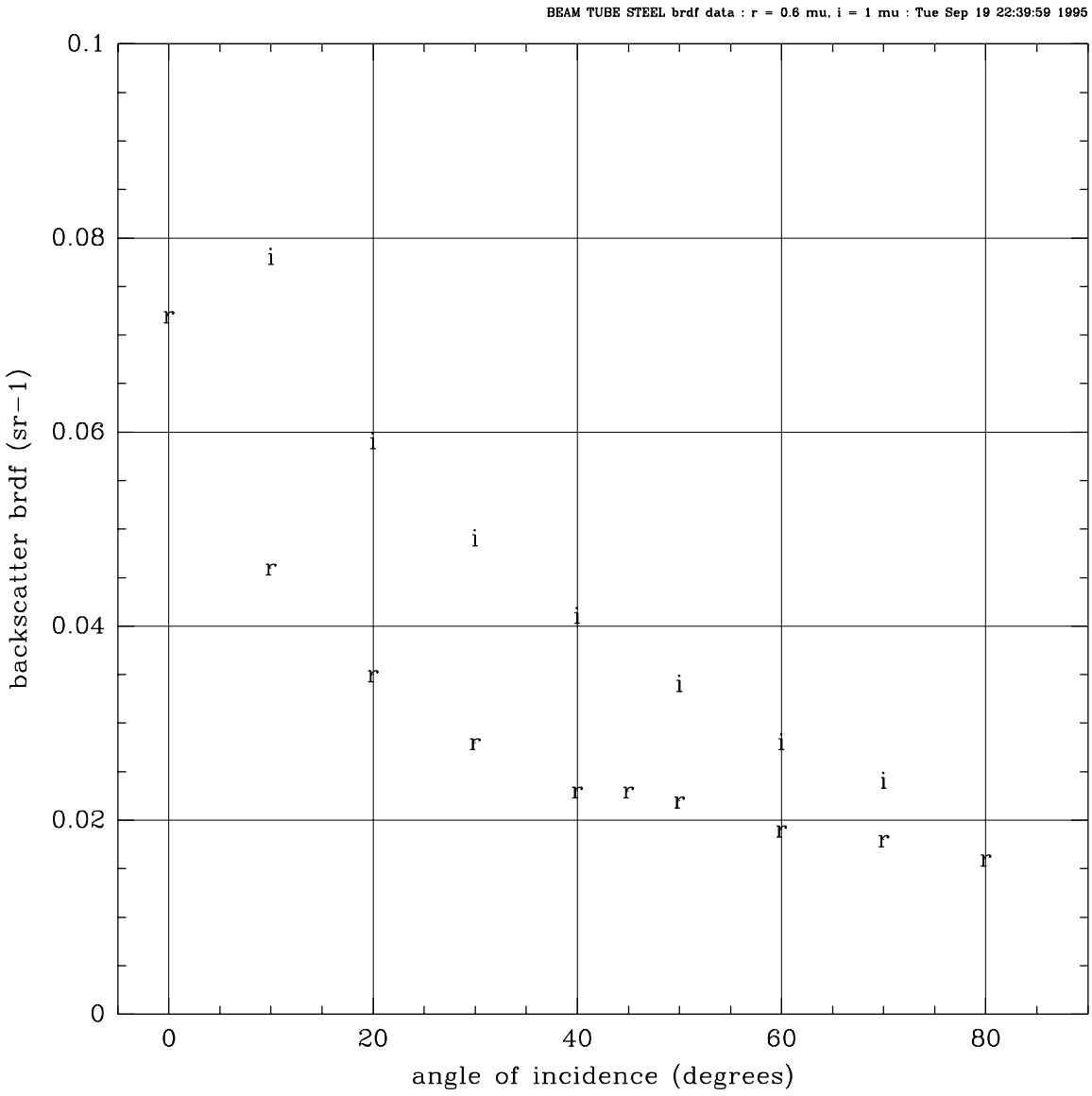

Figure 3 Backscatter brdf of the oxidized beam tube steel surface at 0.63 (r) and 1.06 (i) microns as a function of the angle of incidence.

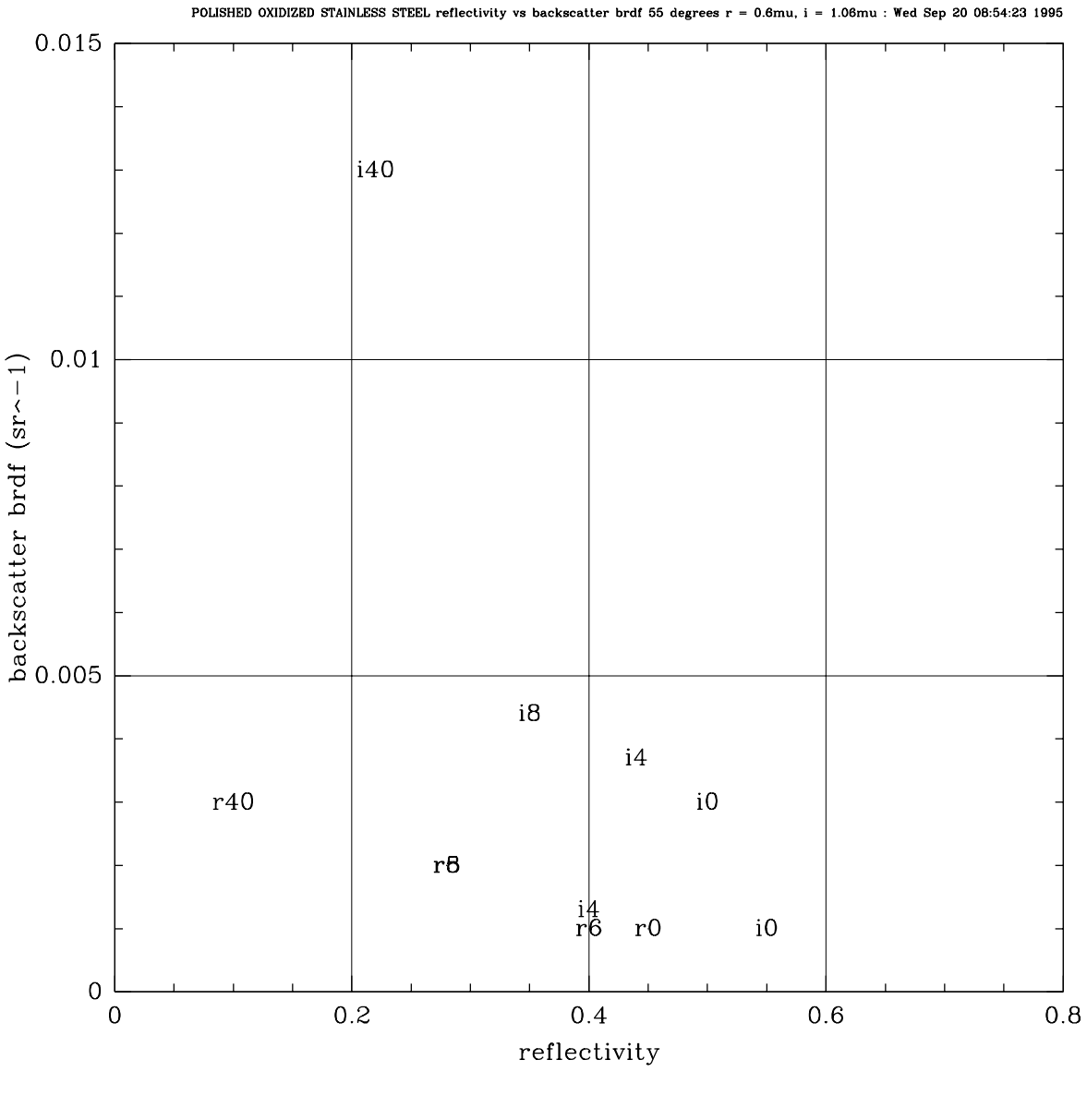

Figure 4 Backscatter brdf vs average reflectivity at 55 degrees incidence of shiny steel samples at 0.63 (r) and 1.06 (i) micron wavelength. The numbers used in the symbols indicate the number of hours in the furnace at 450 C. The scatter in the data is from back and front surface data being used together in the plot. Other data for bright anneal #2 at 1.06 gives an average reflectivity of 0.55, 0.45, 0.4, 0.35 for 0, 8, 20 and 40 hours of oxidization. I do not believe the point in the plot labelled i40.