Available dichroic dyes

1g, 5g, 25g, 100g, bigger quantities on request

Dye	λ_{max} (nm)	$E_{1,1}$	D	t_F
Blue AB2	637 (592)	535	10,7	250
Blue AB3	643 (605)	316	12,8	40
Blue AB4	641 (596)	559	13,6	420
Orange AO1	517 (496)	201	9,8	1100
Orange AZO1	487 (-)	895	11,8	230
Yellow AG1	463 (450)	216	11,7	310
Red AR1	554 (521)	240	11,0	420
Cyan AC1	668 (633)	260	12,1	150

A anthraquinone dye

AZ azo dye

λ_{max} measured in the nematic mixture M677 of NEMATEL containing cyano and alkoxy PCH, BCH and CBC compounds, clearing point 115°C;
(second peak of lower absorbance typical for anthraquinons in brackets)

$E_{1,1}$ specific absorbance (calculated absorbance of a solution of 1 g dye in 100ml of toluene in a 1cm cuvette)

D dichroic ratio at 20°C in M677

t_F Fading time in h (time for loss of 10% of absorbance). A solution of the dye in M677 having an initial absorbance of ca. 0.5 (homogeneous alignment) was irradiated by a UV-A/visible light source (Philips TL36D25/09N) in an unprotected glass cell (9 µm gap) at a distance of 10cm.
t_F depends on LC host. Absorbance was measured with unpolarized light.

The solubility of the dyes and combination of dyes should be determined for every individual nematic host. The solubility of the single dyes of the table in common CB and PCH mixtures are between 1 and 3% at 20°C.

Research quantities of the old anthraquinone dyes D5, D16, D37 and D77 are also available (Pellat et al., Mol. Cryst. Liq. Cryst. 59, 229-316 (1980)).