H-LaF3A 744449

n_d = 1.74400	υ_d = 44.90	$n_F - n_C$ = 0.016570
n_e = 1.74794	υ_e = 44.63	$n_{F'} - n_{C'}$ = 0.016760

Refractive Indices		
	λ(nm)	
n_r	706.5	1.73630
n_C	656.3	1.73906
$n_{C'}$	643.8	1.73984
n_{He-Ne}	632.8	1.74057
n_D	589.3	1.74386
n_d	587.6	1.74400
n_e	546.1	1.74794
n_F	486.1	1.75563
$n_{F'}$	480.0	1.75660
n_g	435.8	1.76496
n_h	404.7	1.77285
n_i	365.0	1.78660

Chemical Properties (grade)	
RC(S)	3
RA(S)	3
D_W	1
D_A	3

Thermal Properties	
Tg(℃)	644
Ts(℃)	687
$T_{10}^{14.5}$(℃)	595
T_{10}^{13}(℃)	641
$\alpha_{20/120℃}$ (10^{-7}/K)	68
$\alpha_{20/300℃}$ (10^{-7}/K)	77
λ(W/m·K)	

Internal Transmittance		
λ(nm)	τ5mm	τ10mm
2400	0.881	0.763
2200	0.961	0.905
2000	0.985	0.964
1800	0.999	0.988
1600	0.999	0.998
1400	0.999	0.998
1200	0.999	0.998
1060	0.999	0.998
1000	0.999	0.998
950	0.999	0.998
900	0.999	0.998
850	0.999	0.998
800	0.999	0.998
700	0.999	0.998
650	0.999	0.998
600	0.999	0.998
550	0.999	0.998
500	0.997	0.989
480	0.995	0.986
460	0.993	0.984
440	0.991	0.979
420	0.989	0.977
400	0.984	0.964
390	0.977	0.951
380	0.966	0.929
370	0.947	0.891
360	0.915	0.827
350	0.854	0.726
340	0.746	0.548
330	0.531	0.274
320	0.201	0.041
310		
300		
290		
280		

Constants of Dispersion Formula	
A_0	2.9657374
A_1	-9.65716×10-3
A_2	2.60245251×10-2
A_3	3.66846411×10-4
A_4	2.82055511×10-5
A_5	-1.37399291×10-7

Mechanical Properties	
H_K(10^7Pa)	550
F_A	146
E(10^7Pa)	8783
G(10^7Pa)	3404
μ	0.290
B(10^{-12}/Pa)	

Relative Partial Dispersion			
$P_{d,c}$	0.2981	$P'_{d,c'}$	0.2484
$P_{e,d}$	0.2378	$P'_{e,d}$	0.2352
$P_{g,F}$	0.5628	$P'_{g,F'}$	0.4988

Anomalous dispersions	
$\Delta P_{F,e}$	-0.0013
$\Delta P_{g,F}$	-0.0060

Range of Temperature (℃)	Temperature Coefficients of Refractive Index dn/dt relative (10^{-6} / ℃)						
	t	C'	He-Ne	D	e	F'	g
-40～-20	1.8	2.5	2.5	2.7	3.0	3.5	4.0
-20～0	1.8	2.5	2.5	2.7	2.9	3.5	4.1
0～20	1.8	2.5	2.5	2.7	3.0	3.6	4.2
20～40	1.8	2.5	2.5	2.7	3.0	3.6	4.3
40～60	1.9	2.6	2.6	2.9	3.1	3.8	4.4
60～80	2.0	2.7	2.8	3.0	3.3	3.9	4.6

Density	
ρ(g/cm^3)	4.30

Coloration Code			
λ_{80}/λ_5	38/32	λ_{70}/λ_5	