

符号说明

1. 凡数据后有符号“*”，表示光栏位置或其值中间有光栏。

凡数据后有符号“**”，表示原资料中未给此值，此系编者在计算时给定的值。

2. 凡没有注明数值单位的，均以毫米为单位；若注明以英寸为单位，则在该镜头资料中均以英寸为单位。

3. 常用符号：

ΣS_1	球差系数和；
ΣS_2	彗差系数和；
ΣS_3	象散系数和；
ΣS_4	场曲系数和；
ΣS_5	畸变系数和；
LA'	球差；
$\Delta H'$	绝对畸变；
x'_1	细光束子午场曲；
x'_t	细光束弧矢场曲；
$x'_t - x'_1$	象散；
K'_{T1}	全口径的子午彗差；
$K'_{T0.7}$	0.707口径的子午彗差；
QP	相对畸变；
HI	理想象高；
$E. F. L$	焦距；
$B. F. L$	后截距；
FN_0	相对孔径倒数；
$F. A.$	视场角；
L'_p	入瞳距离或光栏距 L'_p 下标所示面的距离；
η	物高；
ω	镜头视场。

编号: 02-00-001

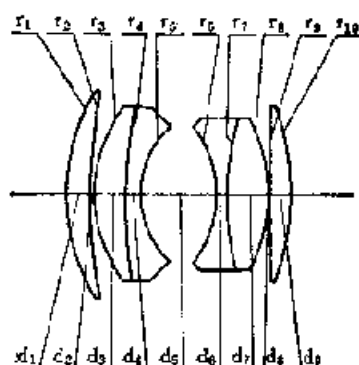
双高斯型物镜

E. F. L = 100

B. F. L = 72.43

FNo. = 2

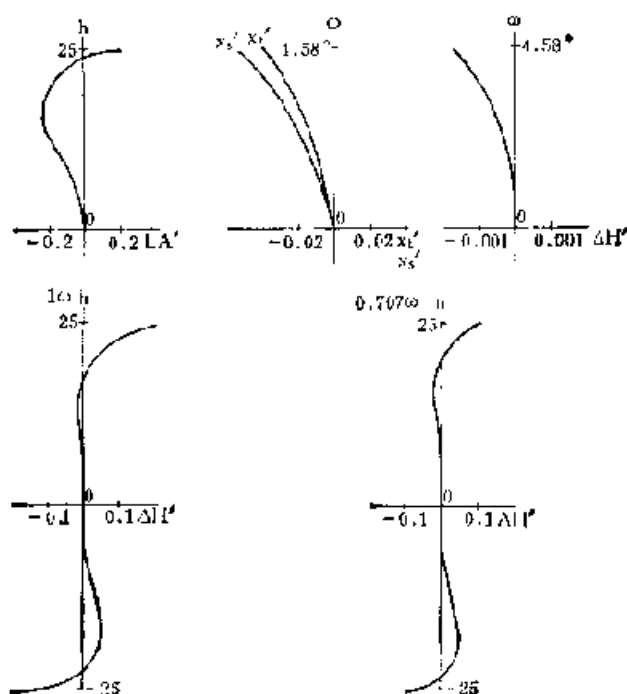
F. A. = $\pm 4.58''$



序号	r	d	n_D	v	序号	r	d	n_D	v
1	54.83	6.71	1.67033	47.2	6	-30.20	3.17	1.63980	34.6
2	156.25	1.27			7	90.18	11.88	1.65844	50.8
3	30.67	8.93	1.69347	52.5	8	-41.87	0.21		
4	168.32	3.52	1.66446	35.9	9	2359.37	5.25	1.74472	44.7
5	25.39	21.21*			10	-77.24			

21.21* = 10.00 + 11.21

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H	QP(1 ω)
	-0.13	0.0051	0.00082	-0.0077	-0.00085	8	-0.02%
h 或 ω %	LA'	AH'	x'_t	x'_s	$x'_t - x'_s$	K'_{T1}	$K'_{T0.7}$
100	0.2	-0.0017	-0.041	-0.054	0.013	0.029	0.021
70	-0.26	-0.0006	-0.021	-0.027	0.0064	0.021	0.015



编号: 02-00-002

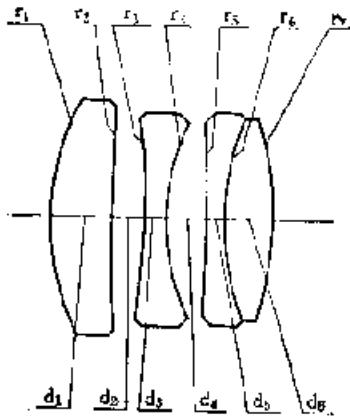
摄影物镜

E. F. L = 1

B. F. L = 0.80568

FNo. = 2.4

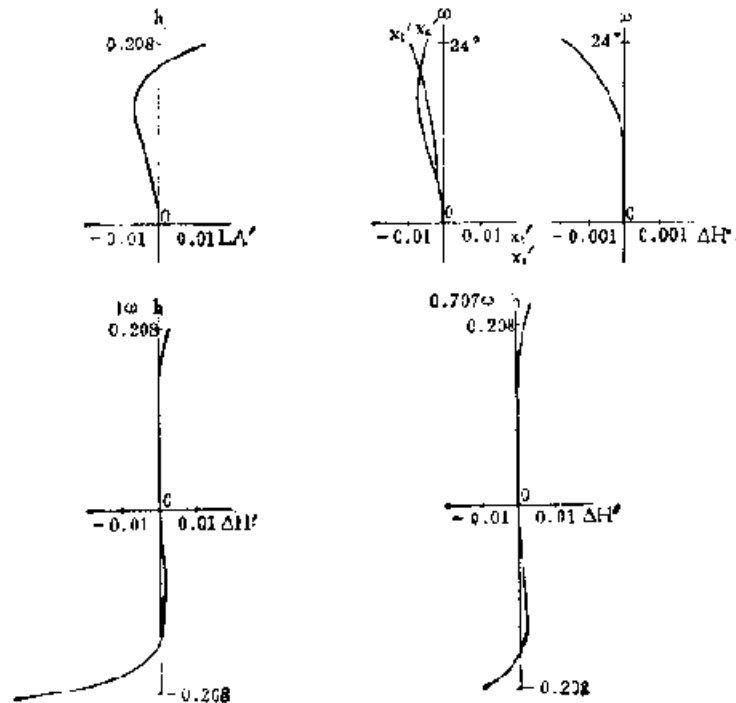
F. A. = $\pm 24^\circ$



序号	r	d	n_d	v_d	序号	r	d	n_d	v_d
1	0.455042	0.11732	1.78797	47.44	5	-14.149473	0.03355	1.62004	36.31
2	7.482584	0.05729			6	0.292931	0.08778	1.78443	43.77
3	-0.862766	0.03876	1.68893	31.15	7	-0.580024			
4	0.397638	0.07705*							

0.07705* = 0.03000 + 0.04705

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1%)
	-0.002	0.0006	0.000024	-0.0017	-0.00012	0.43	-0.38%
h 或 ω %	LA'	$\Delta H'$	x'_t	x'_s	$x'_t - x'_s$	K'_{T1}	$K'_{T1.7}$
100	0.012	0.0013	0.0090	0.0043	0.0047	0.018	-0.0019
70	-0.0055	-0.00035	-0.0059	-0.0068	0.00095	-0.0044	0.00025



编号: 02-00-003

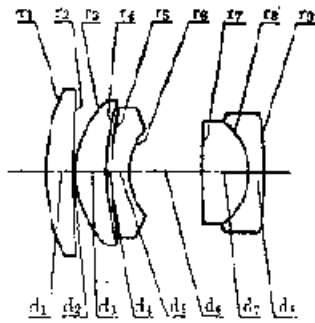
摄影物镜

E. F. L = 100

B. F. L = 49.91

FN₀ = 2

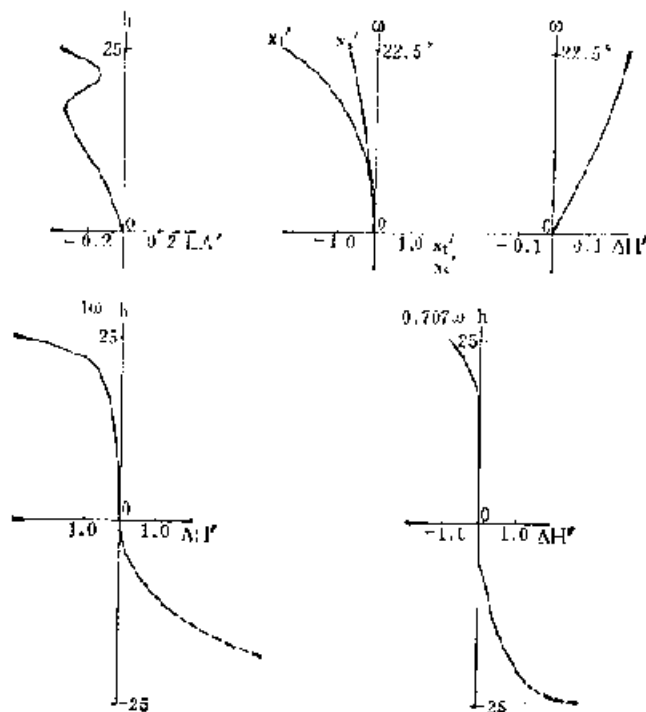
F. A. = ±22.5°



序号	r	d	n _D	v _D	序号	r	d	n _D	v _D
1	50.82	7.74	1.5688	63.1	6	18.55	21.90*		
2	275.16	0.07			7	379.58	12.61	1.6700	47.1
3	27.83	8.90	1.7015	41.1	8	17.62	4.38	1.6073	49.2
4	61.65	1.00			9	-115.32			
5	83.58	4.88	1.7408	27.7					

$$21.90^* = 19.00 + 2.90$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1 ω)
	-0.20	0.20	-0.075	-0.16	0.36	42.27	0.92%
h 或 ω %	LA'	$\Delta H'$	x'_s	x'_s	$x'_s - x'_s$	K ₁	K _{10.7}
100	-0.39	0.22	2.71	0.70	2.01		1.81
70	-0.34	0.18	-1.05	-0.65	-0.44	5.46	0.38



编号: 02-00-004

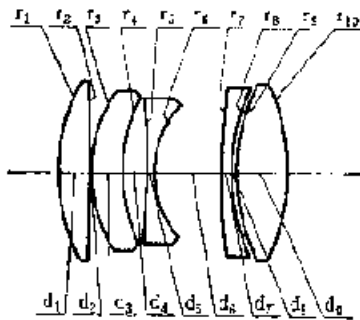
物 镜

E. F. L = 100

B. F. L = 56.18

FN₀ = 2

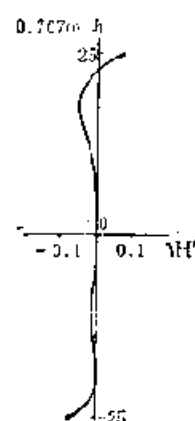
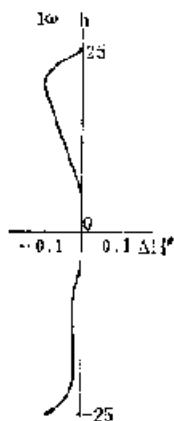
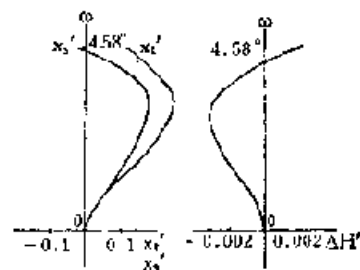
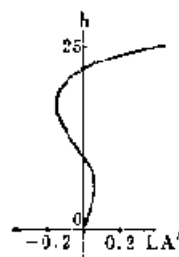
F. A. = ±4.58°**



序号	r	d	n_D	ν	序号	r	d	n_D	ν
1	48.57	8.57	1.6068	59.5	6	27.43	19.05*		
2	952.45	0.48			7	200.31	2.83	1.6068	59.5
3	38.10	9.52	1.6068	59.5	8	56.19	0.48		
4	43.19	5.71			9	51.48	14.29	1.6068	59.5
5	-223.83	2.86	1.6077	33.5	10	-56.16			

19.05* = 19.00 + 0.05

	$\sum S_1$	$\sum S_2$	$\sum S_3$	$\sum S_4$	$\sum S_5$	HT	QPC(%)
	-0.16	-0.019	0.0098	-0.013	0.0011	8	0.028%
主 线 (%)	LA'	$\Delta H'$	x'_1	x'_2	$x'_1 - x'_2$	K'_{f1}	$K'_{f0.7}$
100	0.45	0.0022	0.113	-0.028	0.138	0.047	0.056
70	-0.17	-0.0036	0.25	0.17	0.075	-0.018	-0.026



编号: 02-00-005

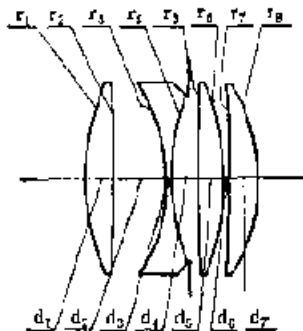
摄影物镜

E. F. L = 1

B. F. L = 0.90

FNo. = 2

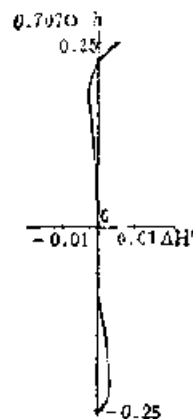
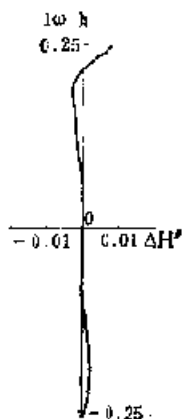
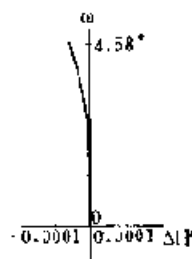
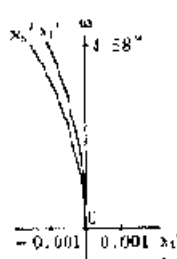
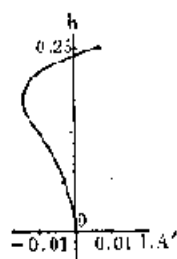
F. A. = $\pm 4.58^{\circ}$ **



序号	r	d	n_D	v_D	序号	r	d	n_D	v_D
1	0.634	0.376	1.635	1.6183	5	9.236	0.039	1.635	1.6183
2	-8.333	0.150*			6	-0.745	0.015		
3	0.473	0.012	1.617	1.6367	7	15.394	0.036	1.516	1.5204
4	0.733	0.072			8	-0.471			

$$0.150^* = 0.050 + 0.100$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HJ	QF(10)
	-0.0046	-0.00034	0.000029	-0.00021	-0.000024	0.08	-0.062%
h 或 ω %	$\Delta A'$	$\Delta H'$	x'_1	x'_2	$x'_1 - x'_2$	Kf_1	$Kf_{0.7}$
100	0.0072	-0.000051	-0.0010	0.0015	0.000489	0.0033	0.00057
70	-0.013	-0.000018	-0.00052	-0.00076	0.00024	0.0023	-0.00042



编号: 02-00-006

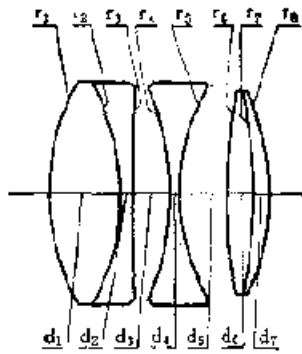
摄影物镜

E. F. L = 100

B. F. L = 80.72

FNo. = 2.5

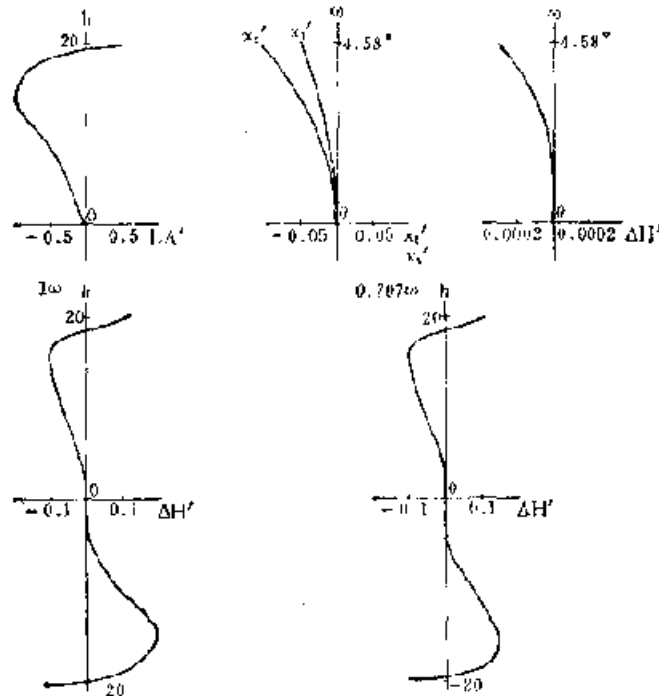
F. A. = $\pm 4.58''$



序号	r	d	n _D	v	序号	r	d	n _D	v
1	40.37	13.39	1.8139	55.4	5	38.07	9.03*		
2	-43.81	2.20	1.5190	45.1	6	104.50	4.80	1.5990	57.2
3	727.39	6.65			7	-89.47	3.30	1.5470	62.8
4	50.13	2.30	1.5260	39.2	8	-41.58			

$$9.03^* = 4.50 + 4.53$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1 ω)
	-0.24	0.0058	3.0022	-0.010	-0.00011	3	-0.0033%
h 或 ω %	LA'	$\Delta H'$	x'_1	x'_2	$x'_3 - x'_4$	K_{T1}^*	$K_{T(1.7)}^*$
100	0.52	-0.00032	-0.047	-0.103	0.056	-0.023	0.017
70	1.00	-0.00010	0.023	-0.051	0.028	-0.023	0.012



编号: 02-00-007

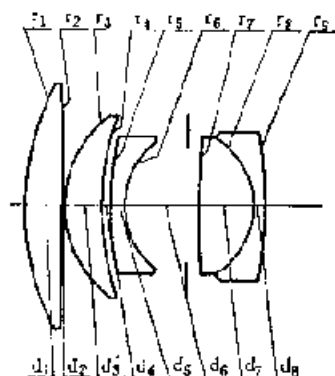
四组五片摄影物镜

E. F. L = 100

B. F. L = 47.91

FNo. = 1.8

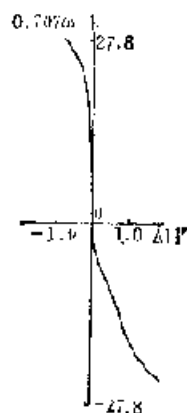
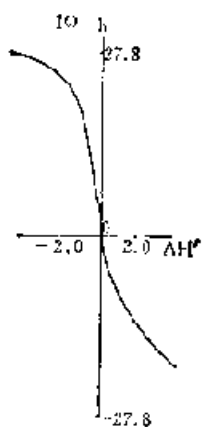
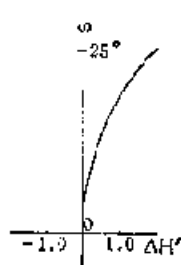
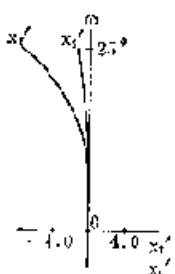
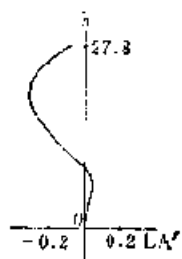
F. A. = +25°



序号	r	d	n_D	v_D	序号	r	d	n_D	v_D
1	79.46	10.60	1.5885	61.2	6	21.89	20.60*		
2	1960.00	0.40			7	236.18	16.10	1.6584	51.0
3	30.97	10.20	1.6694	47.3	8	-21.70	3.0	1.5718	53.1
4	73.83	2.85			9	137.17			
5	127.83	4.10	1.7402	28.1					

20.60* = 12.00 + 8.60

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1 ω)
	-0.36	0.18	0.11	-0.31	1.08	42.44	5.5%
h 或 ω %	LA'	$\Delta H'$	x'_1	x'_4	$x'_1 - x'_4$	K'_{A1}	$K'_{T0.7}$
100	-0.088	2.33	-8.37	-1.73	-6.34		1.69
70	-0.32	0.68	-2.25	-1.02	-1.23	0.92	0.42



编号: 02-00-008

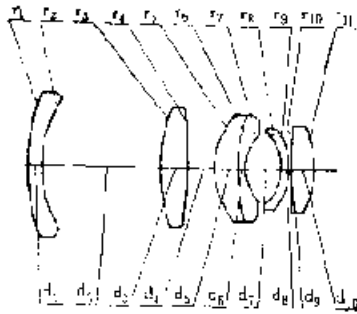
大 孔 径 摄 影 物 镜

E. F. L = 1.0

B. F. L = 0.7861

FNo. = 2

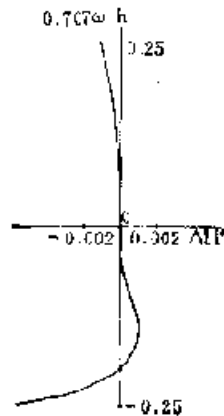
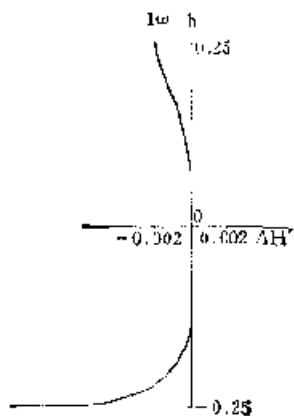
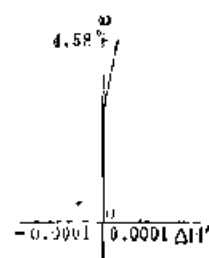
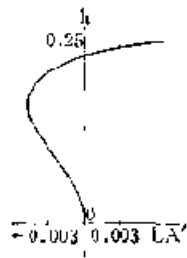
F. A. = $\pm 4.58^{\circ}$ **



序号	r	d	n_d	v	序号	r	d	n_d	v
1	1.4083	3.0782	1.62170	60.4	7	0.2971	0.2033*		
2	0.6857	0.7350			8	-0.2831	0.0547	1.75679	27.5
3	0.9128	0.1564	1.65567	50.7	9	-0.3530	0.0039		
4	-3.9156	0.1642			10	9.4762	0.1447	1.59105	61.2
5	0.4303	0.1681	1.60647	53.7	11	-0.5302			
6	1.3301	0.0391	1.75590	27.5					

0.2033* = 0.1000 + 0.1033

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H1	QP(100)
	-0.0023	0.000056	-0.000020	-0.000056	0.000017	2.08	0.043%
h 或 ω	$L A'$	$L A''$	x'_t	x'_s	$x'_t - x'_s$	K_t^*	$K_{t0.7}^*$
100	0.0057	0.000034	-0.00093	-0.00061	-0.00334	-0.0058	-0.00046
70	-0.0048	0.000012	-0.00017	-0.00021	-0.00016	-0.0041	-0.00033



编号: 02-00-009

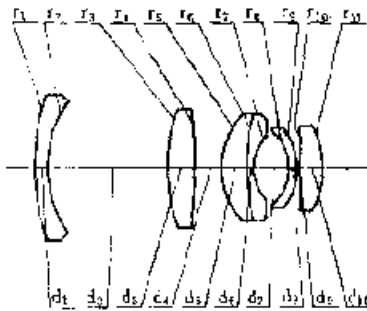
大 孔 径 摄 影 物 镜

E. F. L = 1

B. F. L = 0.7862

FNo. = 2

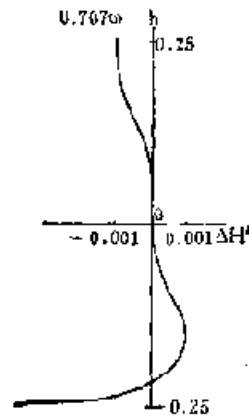
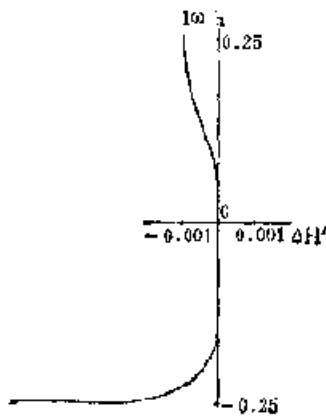
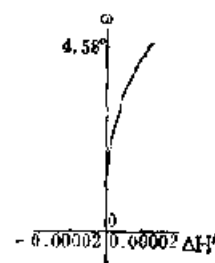
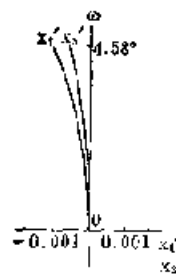
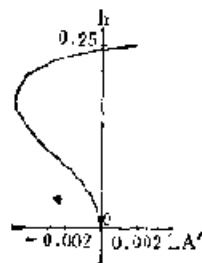
F. A. = $\pm 4.58^\circ$ **



序号	r	d	n _d	v	序号	r	d	n _d	v
1	1.2722	0.0788	1.62170	60.4	7	0.2756	0.2126*		
2	0.6861	0.7403			8	-0.2855	0.0551	1.75679	27.6
3	0.8645	0.1575	1.85867	50.7	9	-0.3656	0.0029		
4	-4.8097	0.0709			10	34.6191	0.1457	1.59105	61.2
5	0.4244	0.1693	1.69347	53.7	11	-0.5205			
6	0.9940	0.0394	1.75520	27.5					

$$0.2126^* = 0.1000 + 0.1126$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	OP(1 ω)
	-0.0023	0.00010	-0.000023	-0.000049	0.000012	0.08	0.03%
h 或 ω %	$\Delta A'$	$\Delta H'$	x_1	x_2	$x_1' - x_2'$	K_{H1}'	$K_{H0.7}'$
100	0.0018	0.000024	-0.00096	-0.00058	-0.00038	-0.0035	-0.00017
70	-0.0051	0.000008	-0.00047	-0.00029	-0.00018	-0.0025	-0.00012



编号: 02-00 010

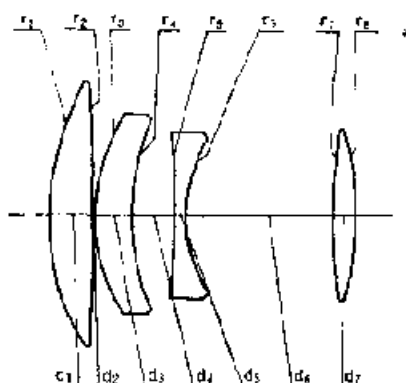
摄影物镜

E. F. L=100

B. F. L=58.15

FN₀ = 2

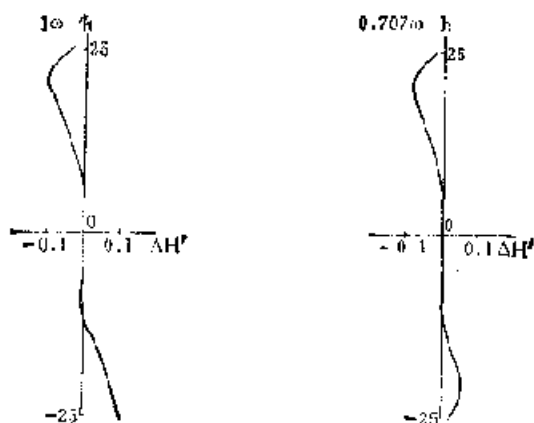
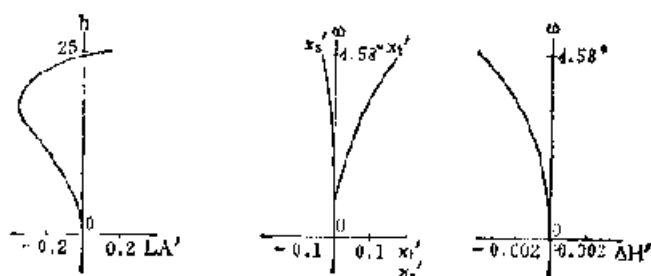
F. A. = ± 4.58°**



序号	r	d	n_D	v_D	序号	r	d	n_D	v_D
1	52.000	9.000	1.56384	1.57532	5	-260.000	2.000	1.64769	1.87249
2	-450.000	0.000			6	28.840	30.000*		
3	36.000	3.000	1.56384	1.57532	7	110.000	5.000	1.56384	1.57532
4	48.539	3.605			8	-61.496			

30.000* = 15.000 + 15.000

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	OP(1 ω)
	-0.15	-3.010	0.013	-0.017	-0.0020	8	-0.059%
h 或 ω %	LA'	$\Delta H'$	α_1'	α_2'	$\alpha_1' - \alpha_2'$	$K_{F.}$	$K_{F0.7}$
100	0.007	-0.0040	0.170	-0.032	0.202	0.026	-0.013
70	0.37	-0.0014	0.091	-0.015	0.107	-0.0061	-0.016



编号: 02-00-011

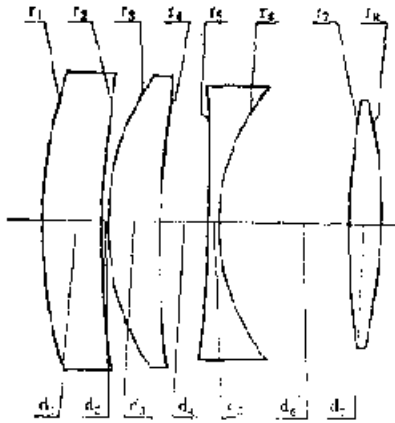
消球差、色差和象散的摄影物镜

E. F. L=100

B. F. L=74.1

FNo. = 2

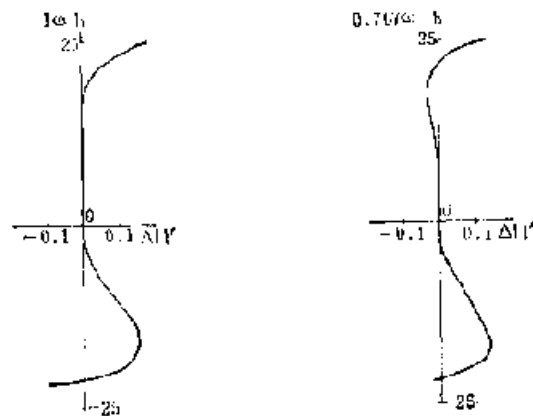
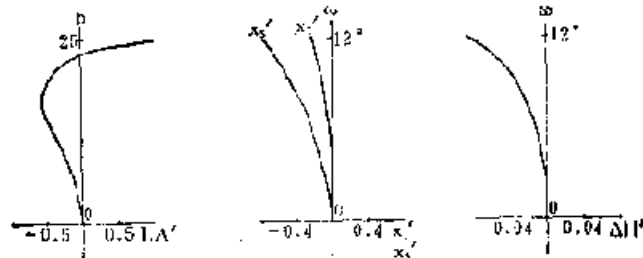
F. A. = $\pm 12^\circ$



序号	r	d	n_D	v	序号	r	d	n_D	v
1	80.2	9.3	1.6130	58.5	5	-320.7	2.0	1.6489	33.8
2	142.8	0.5			6	33.0	20.0*		
3	58.1	8.4	1.6130	58.5	7	114.2	4.6	1.6130	58.5
4	173.1	7.1			8	-77.3			

$$20.0^* = 12.0 - 8.0$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1%)
	-0.25	0.061	0.033	-0.13	-0.027	22.08	-0.38%
h 或 ω %	$\Delta A'$	$\Delta H'$	x'_s	x'_t	$x'_t - x'_s$	$K'_{2.1}$	$K'_{20.7}$
100	1.00	-0.084	-0.20	0.76	0.56	-0.54	0.080
70	-0.58	-0.025	-0.11	-0.40	0.29	-0.32	0.056



编号: 02-00-012

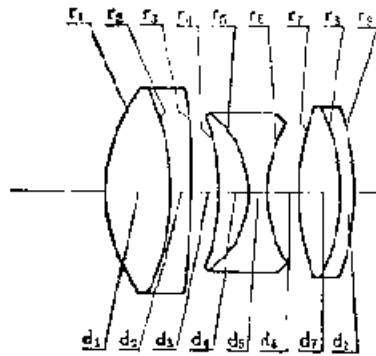
大 孔 径 物 镜

E. F. L = 100

B. F. L = 60.10

FN₀ = 1.8

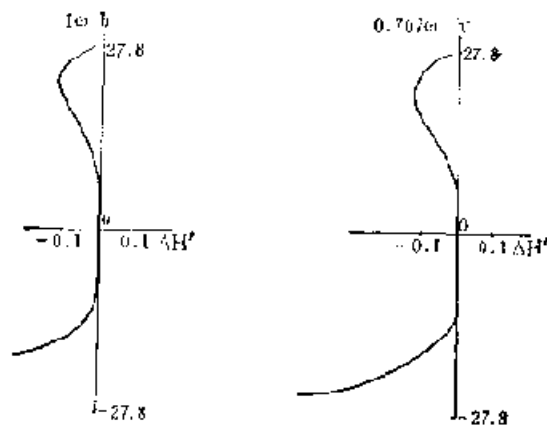
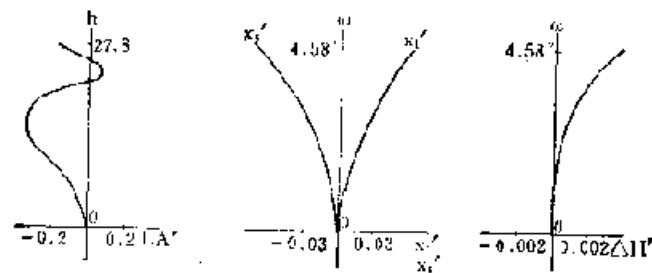
F. A. = $\pm 4.58^{\circ}$ **



序号	r	d	n_D	v	序号	r	d	n_D	v
1	48.8	17.98	1.624	58.2	6	37.1	8.99*		
2	-69.3	5.72	1.622	36.1	7	81.7	11.44	1.624	58.2
3	-268.4	7.85			8	-47.8	4.09	1.541	47.2
4	-53.7	8.17	1.624	58.2	9	-53.2			
5	27.6	4.90	1.567	42.8					

$8.99^* = 5.00 + 3.99$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HJ	QP (1 ω)
	-0.32	0.0084	0.010	-0.022	0.0019	8	0.045%
h 或 ω %	LA'	$\Delta H'$	x_1	x_2	$x_3^2 - x_4^2$	K_{x1}^2	$K_{x0.7}$
100	-0.19	0.0036	0.063	0.074	0.137		-0.17
70	0.33	0.0012	0.031	0.037	0.068		0.17



编号: 02-00-013

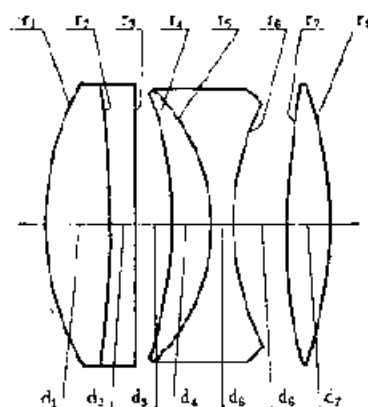
大 孔 径 物 镜

E. F. L = 100

B. F. L = 74.92

FNo. = 2.5

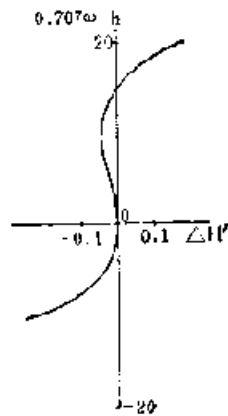
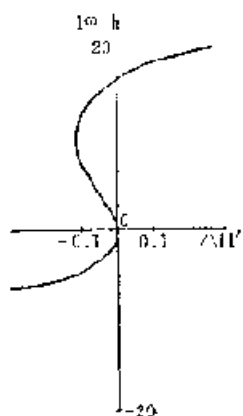
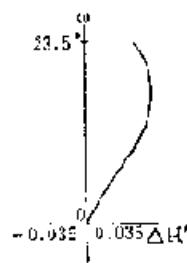
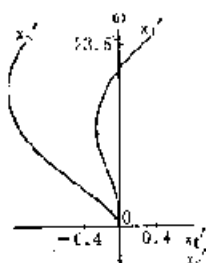
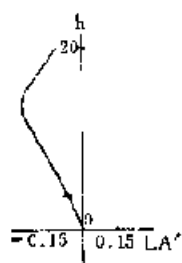
F. A. = $\pm 23.5'$



序号	r	d	n_D	v	序号	r	d	n_D	v
1	45.3	9.60	1.624	58.2	5	-27.8	3.20	1.567	42.8
2	-160.0	4.00	1.622	36.1	6	38.0	8.16		
3	-560.0	5.84			7	95.2	5.40	1.624	58.2
4	-61.5	6.20	1.624	44.8	8	-65.4			

$$8.16^* = 4.60 - 3.65$$

	ΣS	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1%)
	-0.086	0.018	0.044	-0.28	0.13	43.47	0.13%
h 或 ω %	LA'	$\Delta H'$	x_1	x_2	$x_1' - x_2$	K_{T1}'	$K_{T0.7}'$
100	-0.12	0.058	0.26	-1.15	1.41		-1.01
70	-0.27	0.074	-0.26	-1.16	0.90		-0.34



编号: 02-00-014

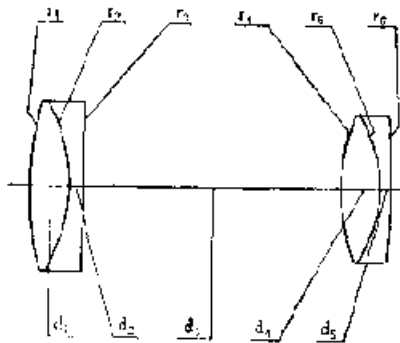
放映物镜

E. F. L = 100

B. F. L = 38.4

FNo. = 1.9

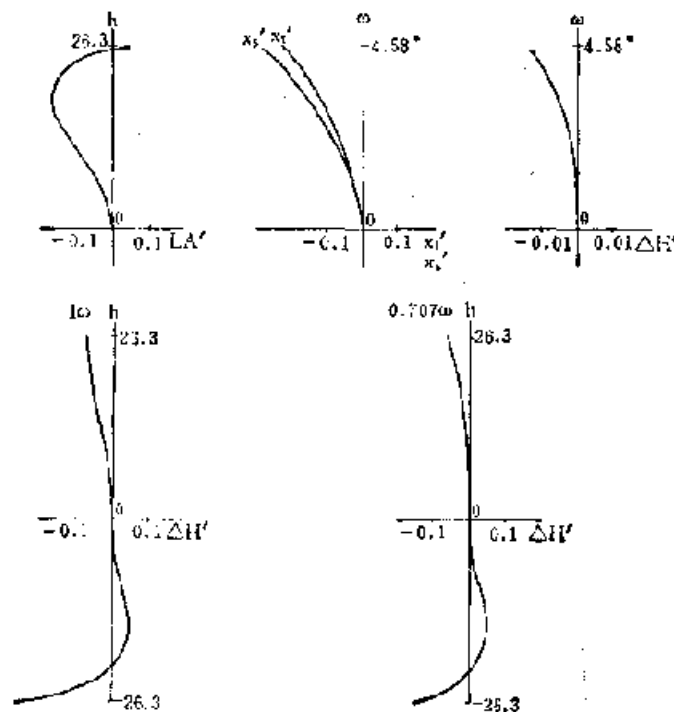
F. A. = +4.58°



序号	r	d	n_D	v	序号	r	d	n_D	v
1	90.00	12.5	1.5799	58.8	4	68.00	11.5	1.5904	81.2
2	-60.00	4.0	1.6180	36.9	5	-42.00	3.0	1.6189	33.8
3	∞	79.5*			6	-386.92			

$$79.5^* = 30.0 + 49.5$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (100)
	-0.085	0.012	0.0033	-0.043	-0.0073	8	-0.17%
h 或 ω %	LA'	$\Delta H'$	x_g	x_w	$x_s - x'_s$	K_{x1}	$K_{y0.7}$
100	0.036	-0.014	-0.228	-0.285	0.059	-0.17	-0.0076
70	-0.18	-0.0050	-0.113	-0.143	0.0268	-0.10	-0.0023



编号: 02 00 015

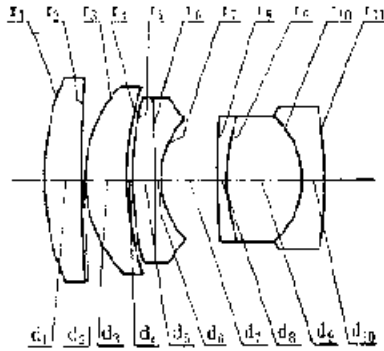
摄影物镜

E. F. L = 100

B. F. L = 44.81

FNo. = 2

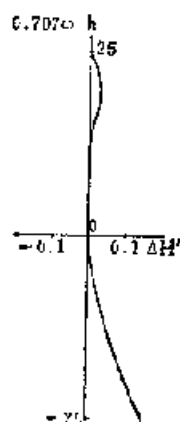
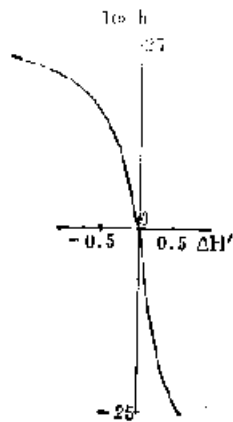
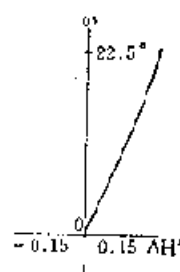
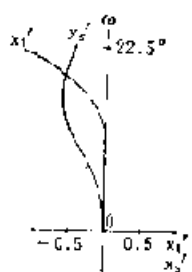
F. A. = $\pm 22.5^\circ$



序号	r	d	n _D	v _D	序号	r	d	n _D	v _D
1	89.47	10.86	1.6221	58.1	7	24.40	15.60*		
2	450.51	0.10			8	788.13	2.97	1.5112	50.9
3	37.25	12.17	1.6706	47.2	9	53.75	20.93	1.7016	41.2
4	84.48	1.00			10	-22.86	5.92	1.6129	47.8
5	88.84	6.62	1.4879	69.9	11	-106.07			
6	-654.78	1.76	1.7391	28.3					

$$15.60^* = 10.00 + 5.60$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	10	QP (100)
	0.11	0.054	0.083	-0.30	0.41	42.29	0.72%
λ 或 ω %	LA'	$\Delta H'$	x_1	x_2	$x_1' - x_2'$	K_{T1}	$K_{T0.7}$
100	-0.21	0.30	-1.15	-0.45	-0.70	-1.18	-0.17
70	-0.30	0.24	-0.12	-0.60	0.48	0.63	0.037



编号: 02-00-016

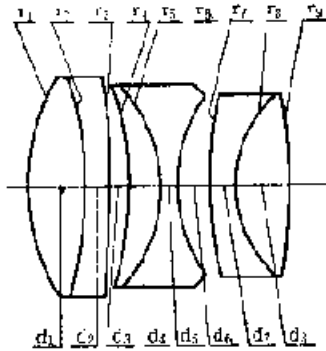
大 孔 径 物 镜

E. F. L = 100

B. F. L = 67.81

FNo. = 2.5

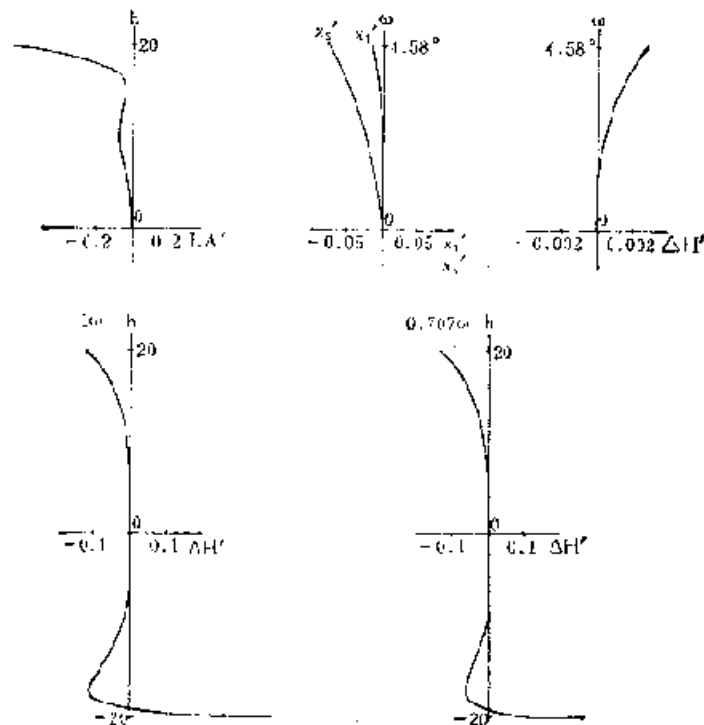
F. A. = $\pm 4.58^{\circ}$ **



序号	r	d	n_D	v	序号	r	d	n_D	v
1	37.04	11.00	1.6233	58.1	6	28.36	5.62*		
2	-67.36	4.22	1.6122	37.3	7	69.82	4.68	1.5896	53.0
3	-354.50	3.60			8	22.36	10.30	1.6233	58.1
4	-61.12	5.62	1.6741	32.6	9	-88.28			
5	27.56	3.74	1.58158	49.3					

5.62* = 3.00 + 2.62

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	Hl	QP (1%)
	-0.045	-0.0024	0.0027	-0.0034	0.0010	8	0.053%
γ 或 α %	LA'	$\Delta H'$	x_1'	x_2'	$x_1' - x_2'$	K_{F1}'	$K_{F0.7}'$
100	-0.72	0.0026	-0.012	-0.082	0.070	0.13	-0.060
70	-0.073	0.00066	-0.0069	-0.041	0.0341	0.065	-0.049



编号: 02-00-017

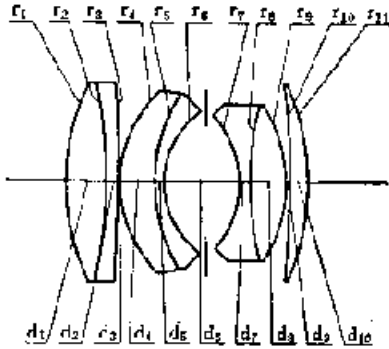
摄影物镜

E.F.L = 1

B.F.L = 0.684

FNo. = 2

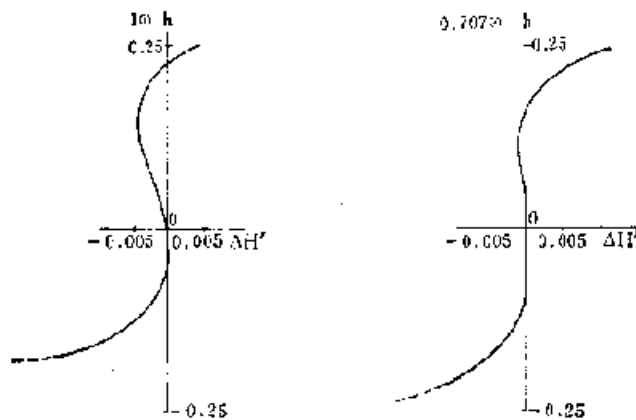
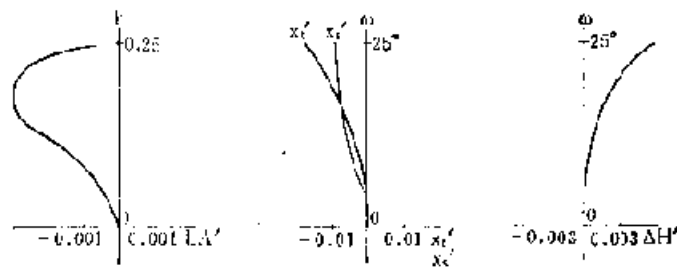
F.A. = $\pm 25^\circ$



序号	r	d	n_D	v	序号	r	d	n_D	v
1	0.6883	0.108	1.5338	55.4	7	-0.2823	0.030	1.5073	42.8
2	-1.2296	0.030	1.8727	32.2	8	0.8853	0.108	1.6204	60.3
3	-19.5850	0.002			9	-0.3787	0.002		
4	0.3325	0.098	1.6700	47.2	10	-19.5650	0.049	1.6074	56.7
5	0.4623	0.030	1.6645	35.9	11	-0.6709			
6	0.2351	0.207*							

0.207* = 0.116 + 0.091

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP (1°)
	-0.00112	0.000032	0.00059	0.0031	0.0022	0.48	1.27%
h 或 ω %	LA'	$\Delta H'$	x'_t	x'_s	$x'_t - x'_s$	K'_{T1}	$K'_{T0.7}$
100	-0.00073	0.0059	-0.009	-0.010	-0.0088	-0.036	-0.0099
70	-0.0030	0.0018	-0.0090	-0.0090	-0.00005	-0.0085	0.0020



编号: 02-00-018

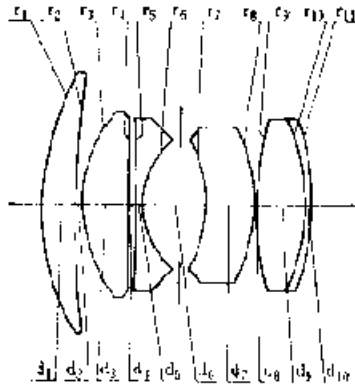
摄影物镜

E.F.L = 3

B.F.L = 1.883

FNo. = 1.35

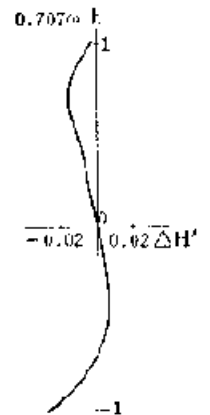
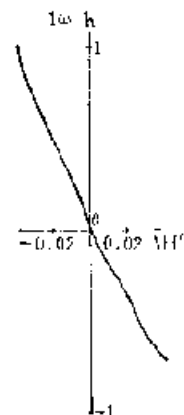
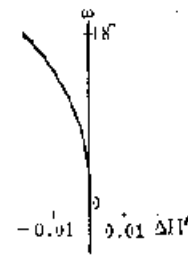
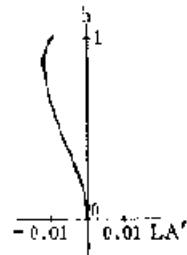
F.A. = $\pm 18^\circ$



序号	r	d	n_D	v	序号	r	d	n_D	v
1	2.615	0.340	1.6230	57.1	7	-1.214	0.492	1.6480	33.8
2	9.712	0.0486			8	-1.700	0.0061		
3	1.426	0.492	1.6230	57.1	9	3.398	0.492	1.6106	55.6
4	∞	0.0486			10	-2.069	0.067	1.6480	46.5
5	-19.423	0.037	1.5490	45.7	11	-2.461			
6	0.885	0.5430*							

$$0.8430^* = 0.4200 + 0.2230$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	IHI	QP (1%)
	-0.0070	0.003074	0.0058	0.012	-0.0070	0.97	-1.82%
h 或 ω %	LA'	$\Delta H'$	x_1'	x_2'	x_1' x_2'	K_{21}''	$K_{10.7}''$
100	0.010	0.017	-0.136	-0.068	-0.067		0.0013
70	-0.011	-0.0056	-0.060	-0.035	-0.024	-0.013	-0.0001



编号: 02-00-019

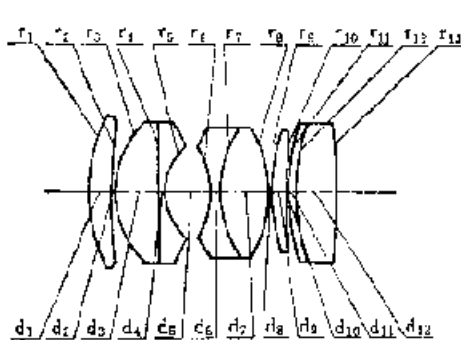
消球差、色差和象散的大孔径物镜

E. F. L = 100

B. F. L = 45.133

FNo. = 1.2

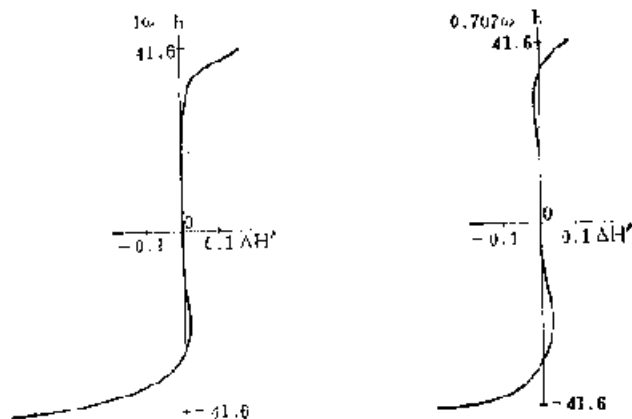
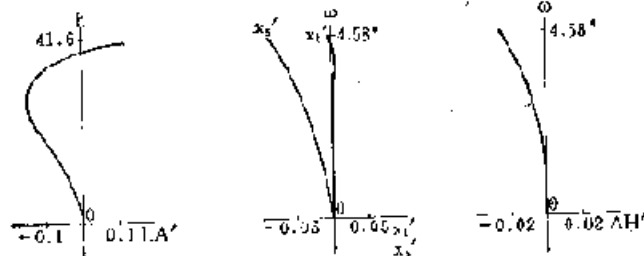
F. A. = $\pm 4.58^\circ$



序号	r	d	n _D	v	序号	r	d	n _D	v
1	50.980	12.53	1.61505	59.4	8	-63.893	0.60		
2	466.380	1.26			9	93.980	0.13	1.62020	56.2
3	54.480	23.96	1.61505	59.4	10	∞	0.63		
4	∞	3.99	1.56810	46.7	11	142.280	2.86	1.62020	36.5
5	23.316	25.10*			12	95.980	23.96	1.62230	44.8
6	-46.208	5.30	1.65250	56.2	13	-310.340			
7	63.893	26.24	1.62020	33.4					

25.10* = 18.00 + 7.10

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP (1%)
	-0.24	0.024	0.016	-0.040	-0.021	8	-0.32%
h 或 ω %	$\Delta A'$	$\Delta H'$	x'_t	x'_s	$x'_t - x'_s$	K_{T1}	$K_{T0.7}$
100	0.12	-0.026	-0.00013	-0.092	0.092	-0.18	0.0054
70	-0.16	-0.0092	0.00034	-0.046	0.047	-0.11	0.0067



编号: 02-00-020

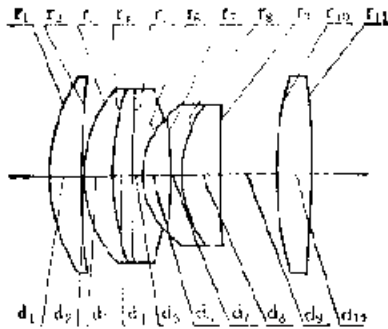
摄影物镜

E. F. L = 100

B. F. L = 41.3

FNo. = 2

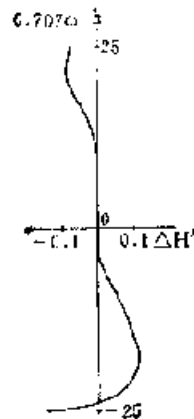
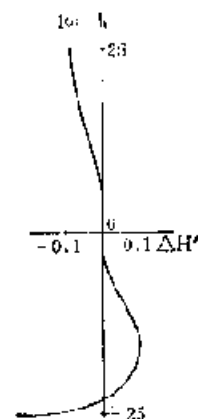
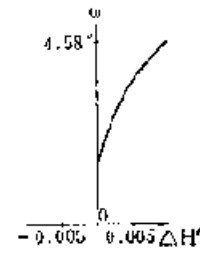
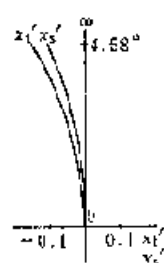
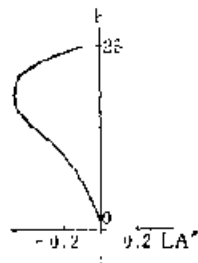
F. A. = 4.58' **



序号	r	d	n _D	v	序号	r	d	n _D	v
1	51.8	8.0	1.6203	60.4	7	-298.6	3.9	1.5017	53.5
2	179.3	0.6			8	30.2	10.8	1.6716	17.2
3	34.0	8.9	1.6716	17.2	9	285.9	15.6*		
4	78.4	5.0	1.5163	64.0	10	114.4	9.7	1.6716	17.2
5	767.3	2.8	1.6890	51.0	11	297.0			
6	32.3	7.2							

15.5'' = 8.0 + 7.6

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QD (∞)
	0.16	0.026	0.0035	-0.010	0.0048	8	0.11%
h 或 ω %	$\Delta A'$	$\Delta H'$	x'_1	x'_2	$x'_3 - x'_2$	k'_{21}	$k'_{10.1}$
100	-0.16	0.0092	-0.15	-0.10	-0.044	-0.17	0.023
70	-0.48	0.0033	-0.080	-0.055	-0.025	-0.10	0.020



编号: 02 00 021

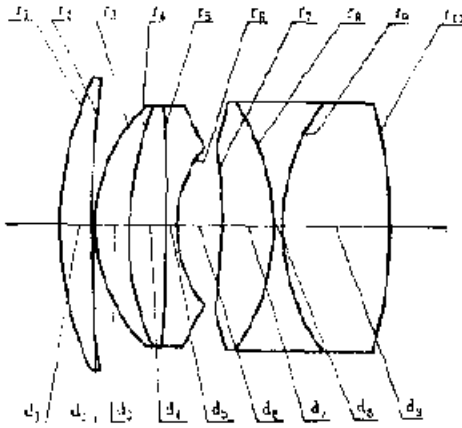
摄影物镜

E. F. L = 100

B. F. L = 54.53

FNo. = 2

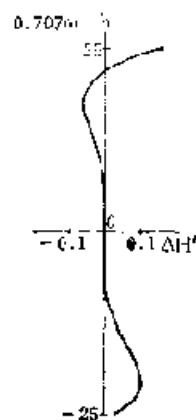
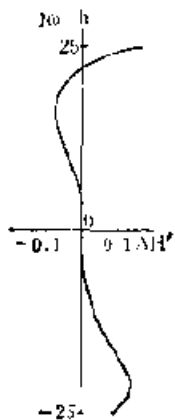
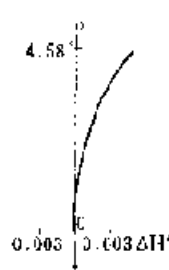
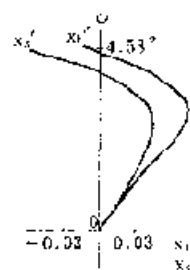
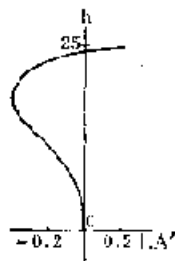
F. A. = $\pm 4.58''^{**}$



序号	r	d	n _D	v _D	序号	r	d	n _D	v _D
1	67.54	6.78	1.6204	60.3	6	24.08	9.44*		
2	386.08	0.38			7	-128.76	10.76	1.6204	60.3
3	34.01	7.17	1.7618	41.2	8	-44.87	1.13	1.5174	52.4
4	63.22	7.55	1.5400	59.6	9	41.14	22.46	1.6689	48.8
5	-461.81	1.89	1.6883	31.2	10	-89.32			

9.44* = 7.50 + 1.94

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (%)
	-0.20	-0.0062	0.0029	-0.010	0.0023	8	0.059%
h 或 ω %	LA'	$\Delta H'$	x'_1	x'_2	$x'_3 - x'_5$	K'_{T1}	$K'_{T1.7}$
100	0.21	0.0947	-0.014	-0.060	0.046	0.12	0.011
70	-0.12	0.0018	0.089	0.045	0.023	0.085	0.0088



编号: 02-00-022

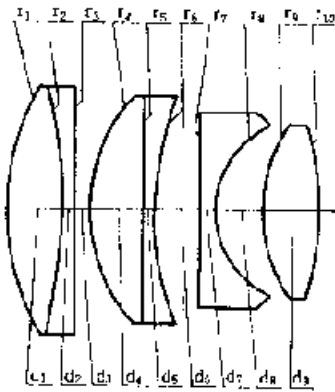
用于摄影或放映的物镜

E. F. L = 100

B. F. L = 35.23

FN₀ = 1.3

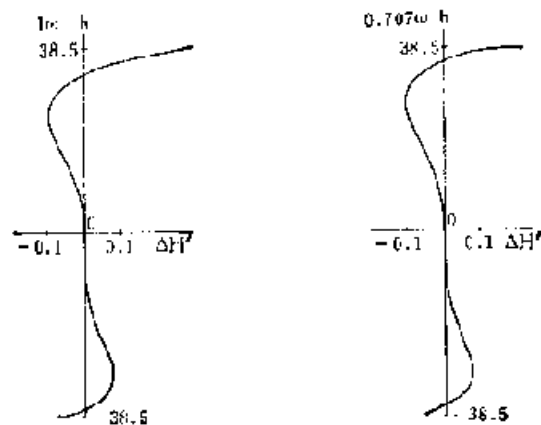
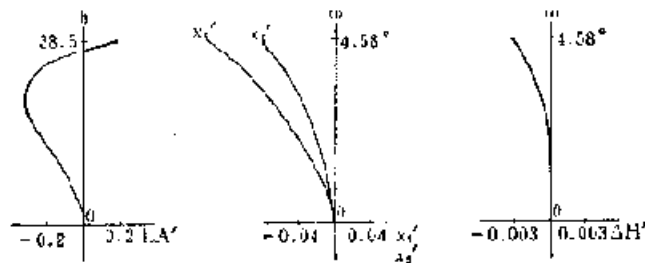
F. A. = ±4.58°**



序号	r	d	n _D	v _D	序号	r	d	n _D	v _D
1	74.34	16.64	1.5338	55.4	3	92.96	13.90*		
2	-158.04	3.72	1.6515	33.8	7	∞	4.60	1.6080	46.2
3	∞	4.50			8	28.08	14.68		
4	50.40	16.64	1.5204	60.3	9	45.50	16.64	1.6074	56.7
5	-929.33	3.72	1.7283	28.3	10	-96.19			

13.90* = 8.40 + 5.50

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	HI	QP (1ω)
	-0.34	-0.025	0.011	-0.658	-0.00090	8	-0.040%
h 或 ω %	LA'	ΔH'	x ₁ '	y ₁ '	x ₁ ' - x ₂ '	K ₁₁ '	K _{11.7} '
100	0.21	-0.0032	-0.085	-0.154	0.069	0.11	-0.015
70	-0.34	-0.00377	-0.040	-0.077	0.037	0.081	-0.011



编号: 02-00-023

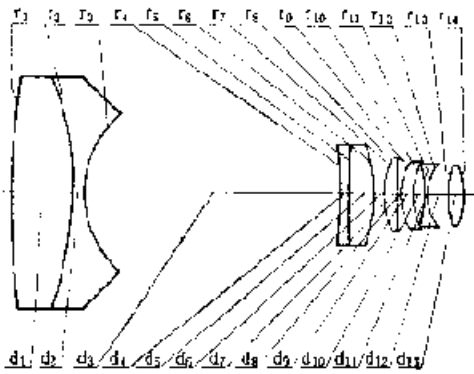
六组元大孔径物镜

E.F.L = 1

B.F.L = 1.316

FNo. = 1.9

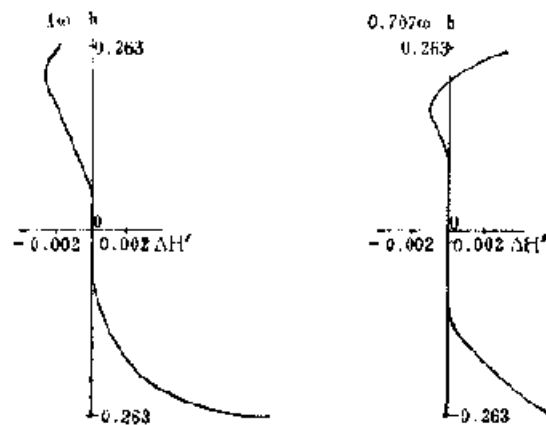
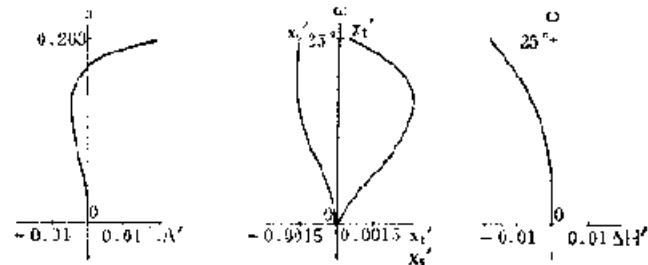
F.A. = $\pm 25^\circ$



序号	r	d	n _D	v _D	序号	r	d	n _D	v _D
1	13.320	0.925	1.6727	32.2	8	-22.940	0.004		
2	-5.027	0.182	1.5101	63.4	9	0.840	0.217	1.6204	60.3
3	1.600	3.850			10	1.077	0.148		
4	-8.158	0.182	1.6727	32.2	11	-2.800	0.062	1.6990	30.1
5	26.990	0.367	1.5101	63.4	12	0.722	0.298*		
6	-2.595	0.147			13	2.010	0.235	1.6385	56.5
7	1.406	0.250	1.6204	60.5	14	-1.101			

0.298* = 0.150 + 0.148

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP (1%)
	-0.0031	-0.00017	0.0000	-0.0016	-0.0094	0.46	-3.66%
± 或 %	LA'	ΔH'	x ₁ '	x ₂ '	x ₁ ' - x ₂ '	K _{T1}	K _{T10.7}
40	0.018	-0.017	0.0006	-0.0016	0.0022	0.6038	-0.000034
70	-0.0050	-0.0030	0.0034	0.0017	0.0051	0.6044	0.000033



编号: 02-00-024

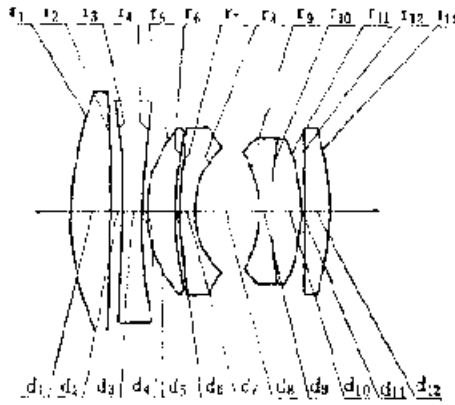
摄影物镜

E. F. L = 100

B. F. L = 61.47

FN_D = 2

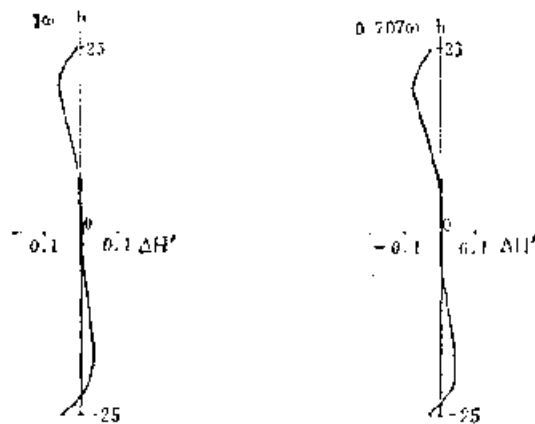
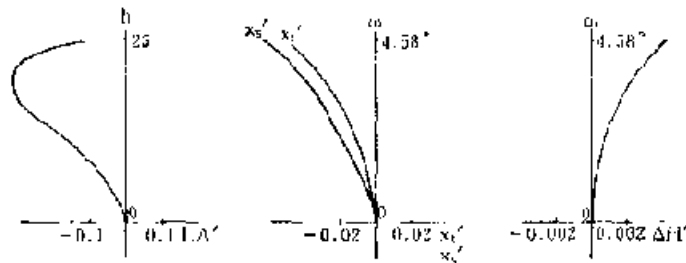
F. A. = ± 4.58° **



序号	r	d	n _D	v	序号	r	d	n _D	v
1	82.10	10.460	1.69100	54.9	8	24.70	13.180*		
2	-410.92	2.900			9	-36.12	3.770	1.58144	40.8
3	-364.46	6.870	1.62237	36.1	10	132.85	3.100	1.69100	54.9
4	209.11	0.182			11	-54.35	0.192		
5	33.68	8.480	1.69100	54.9	12	744.71	6.940	1.69100	54.9
6	109.64	0.515			13	-78.85			
7	-45.08	4.060	1.60140	38.3					

$$13.180^* = 9.000 + 9.180$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	II	QP (100)
	-0.12	-0.0034	0.00034	-0.0088	0.0021	8	0.053%
h 或 ω %	LΔ'	ΔH'	x ₁	x ₂	x ₃ - x ₅	K ₁	K _{T0.7}
100	-0.11	0.0042	-0.048	-0.067	0.014	-0.048	-0.016
70	-0.30	0.0015	-0.024	-0.031	0.0067	-0.034	-0.011



编号: 02-00-025

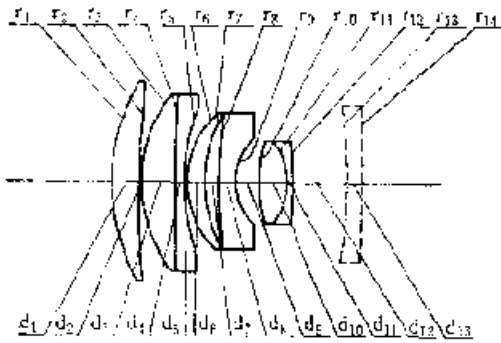
X 光屏图象成象用的物镜

E. F. L = 100

B. F. L = -7.4

FN₀ = 1

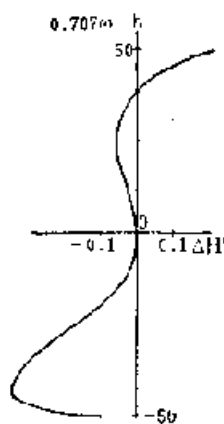
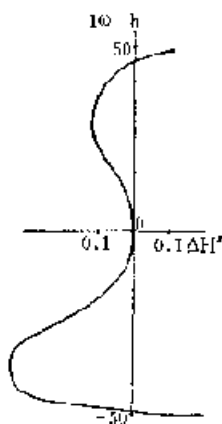
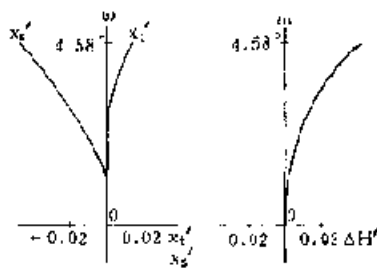
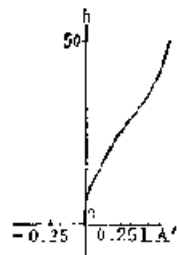
F. A. = ± 4.58°**



序号	r	d	n _D	n _F	序号	r	d	n _D	n _F
1	103.2	15.80	1.62470	1.62960	8	229.1	8.98	1.74727	1.75983
2	748.2	0.30			9	32.4	12.47*		
3	79.4	18.72	1.69353	1.69928	10	75.3	18.19	1.72637	1.73574
4	1401.6	5.37	1.74727	1.75986	11	-35.7	2.28	1.63084	1.63912
5	120.7	0.30			12	-248.2	31.24		
6	49.3	10.89	1.69353	1.69926	13	-246.1	7.67	1.51824	1.52191
7	76.7	7.07			14	∞			

12.47* = 7.00 + 5.47

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	HJ	QP(10)
	0.15	-0.22	0.014	-0.041	0.044	8	0.55%
h 或 ∞ %	LA'	ΔH'	x ₁ '	x ₂ '	x ₁ ' - x ₂ '	K ₁₁	K _{10.1}
100	0.57	0.044	0.014	-0.049	0.063	0.13	-0.23
70	0.42	0.015	0.0080	-0.026	0.028	0.035	-0.16



编号: 02-00-026

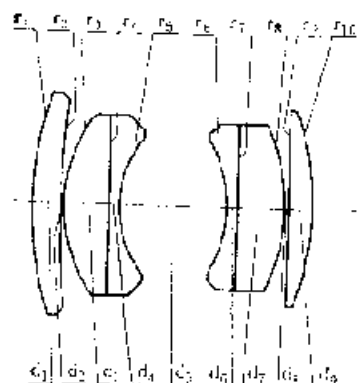
摄影或电影摄影用的多组元替换透镜系统

E. F. L = 0.616

B. F. L = 0.45

FNo. = 2

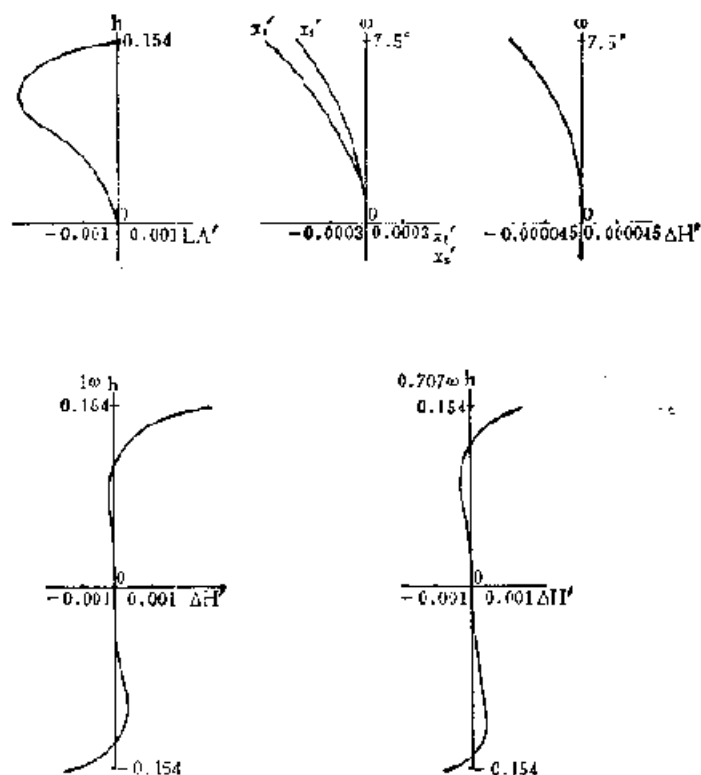
F. A. = $\pm 7.5^\circ$ **



序号	r	d	np	v	序号	r	d	np	v
1	0.4656	0.0405	1.6667	48.4	6	-0.1821	0.0150	1.6477	55.9
2	1.3516	0.0013			7	2.8524	0.0647	1.6910	54.8
3	0.2014	0.0641	1.6584	50.8	8	-0.2582	0.0007		
4	∞	0.0131	1.6513	38.5	9	∞	0.0353	1.6700	47.2
5	0.1495	0.1477*			10	-0.3919			

$$0.1477^* = 0.0628 + 0.0849$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (ω)
	-0.0011	-0.0000074	0.000021	-0.00015	-0.000044	0.38	-0.11%
h 或 $\omega\%$	LA'	$\Delta H'$	x_1'	x_2'	$x_1' - x_2'$	K_{21}^2	$K_{20.7}^2$
100	-0.000006	-0.000002	-0.00058	-0.00088	0.00030	0.00063	0.00011
70	-0.0028	-0.000032	-0.00029	-0.00045	0.00015	0.00039	0.000075



编号: 02-00-027

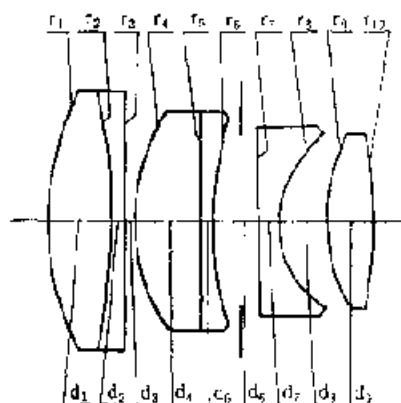
用于摄影或放映的物镜

E. F. L = 100

B. F. L = 34.68

FN₀ = 1.3

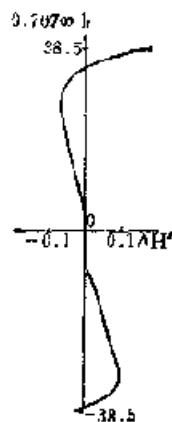
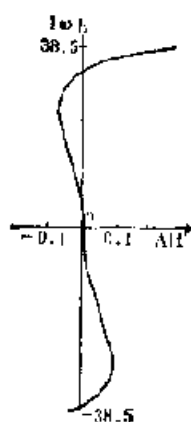
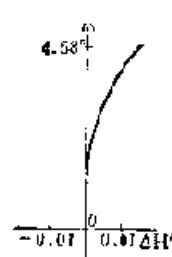
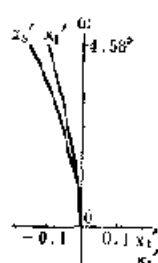
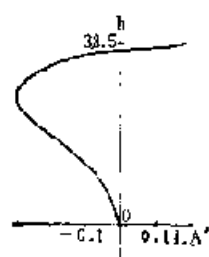
F. A. = ± 4.58' **



序号	r	d	n _D	v	序号	r	d	n _D	v
1	78.90	17.76	1.5338	55.4	6	98.64	12.82*		
2	-167.68	3.94	1.7283	28.3	7	∞	5.92	1.6073	49.2
3	-1185.92	2.95			8	28.60	12.82		
4	50.80	18.74	1.6230	58.1	9	47.34	13.32	1.6074	56.7
5	-986.34	3.94	1.7283	28.3	10	-108.60			

$$12.82^* = 7.82 + 5.00$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	II	QF (100)
	-0.30	-0.012	0.0071	-0.055	0.011	8	0.17%
h 或 ω%	$\Delta A'$	$\Delta H'$	x'_1	x'_2	$x'_1 - x'_5$	K'_{x1}	$K'_{x2.7}$
100	0.18	0.014	-0.10	-0.15	0.048	0.1	0.0042
70	-0.30	0.0053	-0.055	-0.079	0.024	0.07	0.00032



编号: 02-00-028

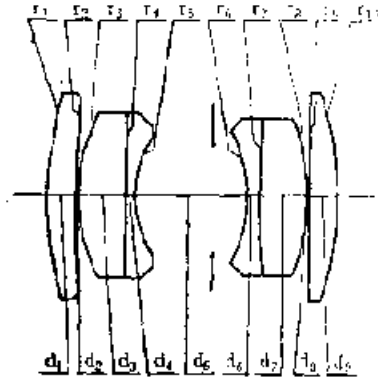
多组元替换透镜系统

E. F. L = 1.293

B. F. L = 0.946

FN₀ = 2

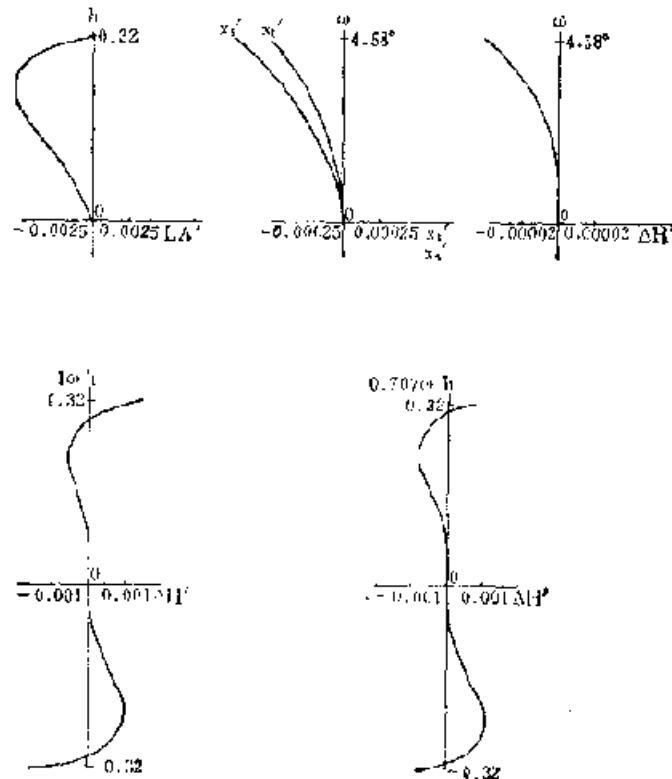
F. A. = ± 4.58° **



序号		d	n _D	v	序号		d	n _D	v
1	0.9758	0.0849	1.6067	48.46	6	-0.3816	0.0315	1.6477	33.9
2	2.8326	0.0027			7	5.9778	0.1355	1.6910	54.8
3	0.4222	0.1342	1.6584	50.878	8	-0.5411	0.0014		
4	∞	0.0274	1.6513	38.510	9	∞	0.0740	1.6700	47.2
5	0.3134	0.3096*			10	-0.8213			

$$0.3096^* = 0.2137 + 0.0959$$

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	III	QF(1ω)
	-0.0023	0.000026	0.000013	-0.00010	-0.000019	0.10	-0.030%
h 或 ω%	LA'	ΔH'	x _t '	x _s '	x _t ' - x _s '	K _{T1}	K _{T0.1}
100	-0.00067	-0.000040	-0.00055	-0.00076	0.00021	-0.00024	0.00014
70	-0.0057	-0.000014	-0.00027	-0.00038	0.00011	-0.000065	0.00012



编号: 02-00-029

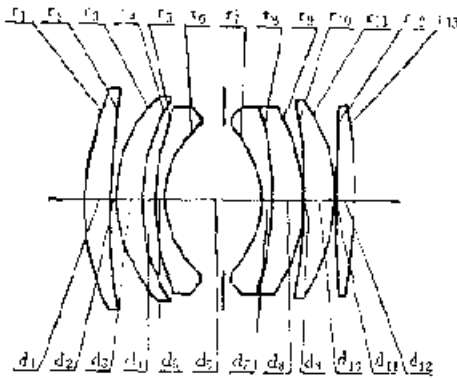
短的大孔径摄影物镜

E. F. L = 1

B. F. L = 0.741

FNo. = 1.4

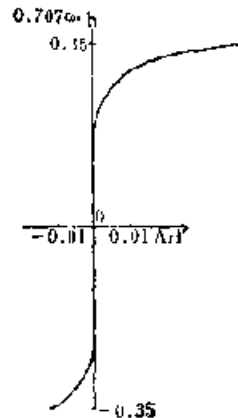
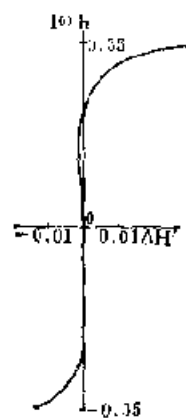
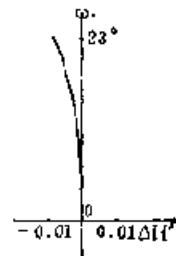
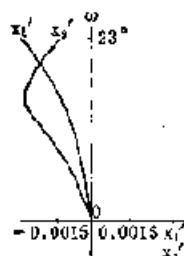
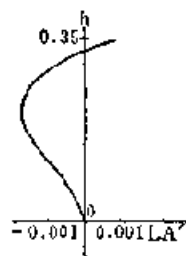
F. A. = $\pm 23^\circ$



序号	r	d	n	v	序号	r	d	n	v
1	0.78185	0.08861	1.8348	42.8	8	-0.95807	0.09981	1.8061	40.8
2	2.59815	0.00232			9	-0.52703	0.00193		
3	0.42438	0.08734	1.8361	40.8	10	-1.50994	0.09691	1.713	54.0
4	0.60180	0.08436			11	-0.50290	0.00232		
5	0.69415	0.02606	1.7347	26.22	12	3.38224	0.05174	1.713	54.0
6	0.28654	0.30888			13	-1.86805			
7	0.31531	0.02345	1.7347	25.7					

$$0.30886 = 0.15883 + 0.15003$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H	QP(100)
	-0.0026	-0.000050	0.0066	-0.0029	-0.0052	0.42	-1.95%
1. 或 $\omega/\%$	LA'	$\Delta H'$	x'_1	x_2	$x'_1 - x_2$	K'_{T1}	$K'_{T1.2}$
100	0.00093	-0.0042	-0.0020	-0.0015	-0.0015	0.0087	0.00053
70	-0.0016	-0.0029	-0.0015	-0.0030	0.0015	0.013	0.0010



编号: 02-00-030

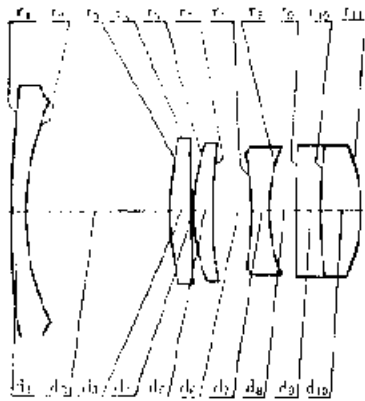
摄影物镜

E. F. L = 1

B. F. L = 1.0095

FN_D = 2.5

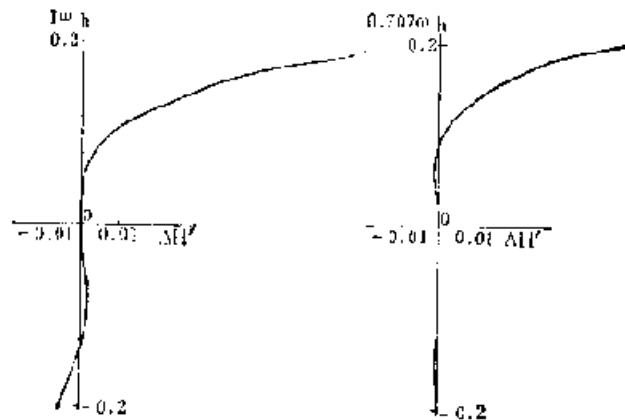
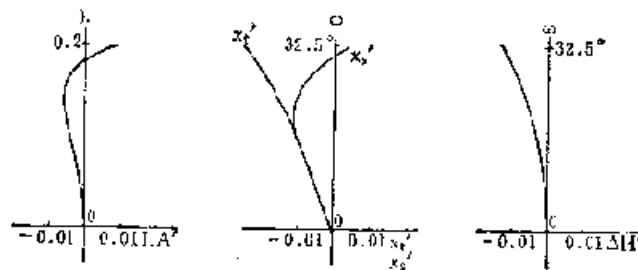
F. A. = ±32.5°



序号	r	d	n	v	序号	r	d	n	v
1	2.9000	0.010	1.51621	65.2	7	0.9400	0.055	1.68893	31.1
2	0.7890	0.420			8	0.5230	0.082		
3	0.9300	0.070	1.74400	44.7	9	3.8500	0.070	1.66580	31.1
4	-5.9000	0.002			10	1.4000	0.120	1.59100	54.9
5	0.6135	0.058	1.69347	53.5	11	-0.5290			
6	1.4000	0.113*							

$$0.113^* = 0.060 + 0.053$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (10%)
	-0.0015	-0.0010	-0.00015	-0.0029	-0.0061	0.62	-2.34%
h 或 $\omega\%$	LA'	AH'	x_+	x_+^2	$x_+^2 - x_+^2$	K_T^2	$F_{0.7}^2$
100	0.0084	0.014	-0.0250	0.0024	-0.0284	-0.19	0.013
70	-0.0058	-0.0057	-0.016	-0.012	-0.0034	0.031	0.0034



编号: 02-00-031

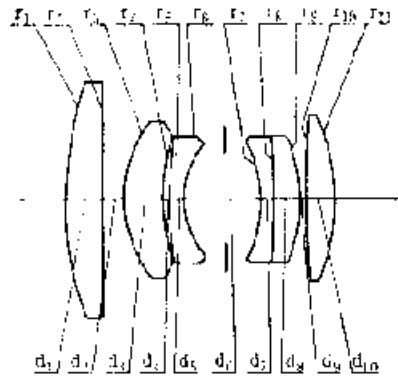
大 孔 径 物 镜

E. F. L = 1

B. F. L = 0.606

FN₀ = 2

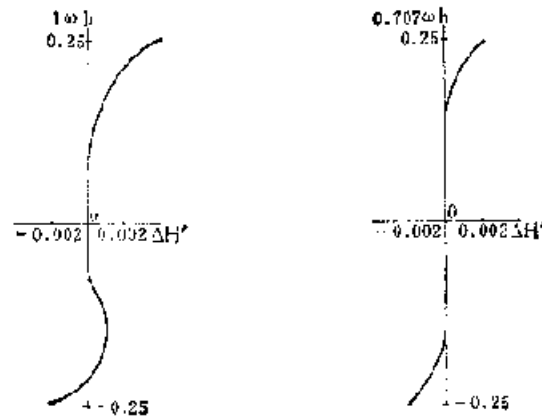
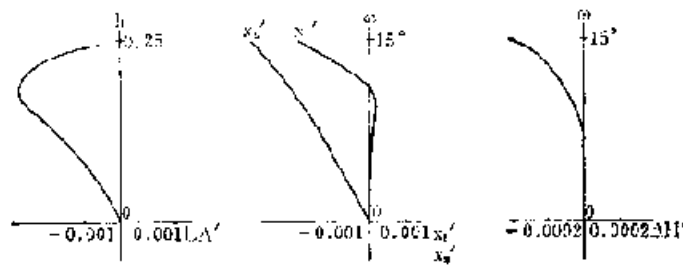
F. A. = ± 15°



序号	r	d	n _D	v	序号	r	d	n _D	v
1	0.96154	0.1017	1.62554	57.9	7	0.32173	0.0321	1.65221	53.6
2	-11.85620	0.0569			8	-2.88460	0.0769	1.66151	50.6
3	0.32692	0.1119	1.62237	60.1	9	-0.43454	0.0100		
4	0.64529	0.0125			10	1.92310	0.0769	1.66151	50.6
5	1.10951	0.0467	1.55221	33.6	11	-0.65000			
6	0.25115	0.2115*							

0.2115* = 0.1000 + 0.1115

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	II	QF (1ω)
	-0.0011	-0.000036	0.00019	-0.0011	-0.000086	0.355	-0.16%
h 或 ω%	LA'	ΔH'	x ₁ '	x ₂ '	x ₁ ' - x ₂ '	K ₁₁ '	K _{T0.7} '
100	-0.00032	-0.00043	-0.0020	-0.0034	0.0014	0.0310	0.00068
70	-0.0028	-0.00016	0.00022	-0.0022	0.0024	-0.00053	-0.000018



编号: 02-00-032

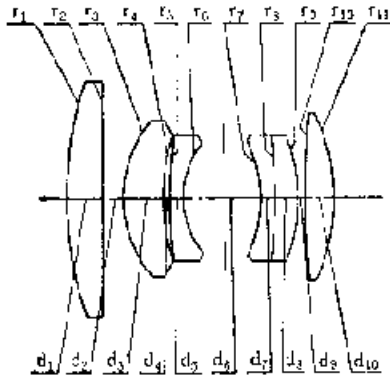
大 孔 径 物 镜

E. F. L = 1

B. F. L = 0.6196

FN₀ = 1.4

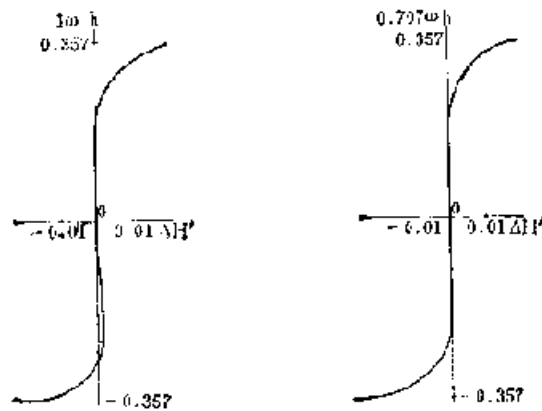
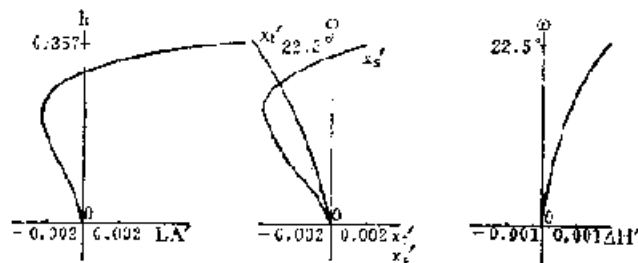
F. A. = ± 22.5°



序号	r	d	n _D	v	序号	r	d	n _D	v
1	0.96154	0.1017	1.72036	47.7	7	-0.24820	0.0321	1.76846	26.8
2	10.69580	0.0539			8	-0.67310	0.0769	1.78990	48.0
3	0.41770	0.1119	1.73390	48.0	9	-0.44880	0.0100		
4	0.34270	0.0200			10	2.91060	0.0846	1.78990	48.0
5	1.30770	0.0467	1.73346	26.8	11	-0.61900	0.6188		
6	0.33370	0.2115*							

$$0.2115^* = 0.1000 + 0.1115$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1%)
	-0.0032	-0.00023	0.00086	-0.0043	0.0021	0.41	0.44%
h at ω%	LA'	ΔH'	x'_t	x'_s	x'_t - x'_s	K'_{t1}	K'_{t0.7}
100	0.0032	0.0018	-0.0056	0.0018	-0.0074	-0.00056	0.0016
70	-0.0022	0.00037	-0.0027	-0.0039	0.0012	-0.0024	0.00049



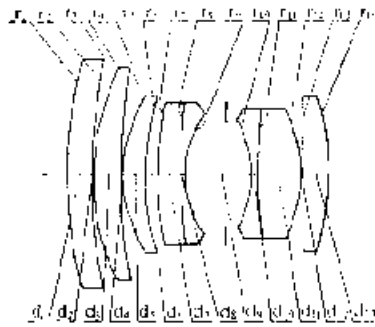
扩展的高斯型大孔径物镜

E. F. L = 1

B. F. L = 0.7114

FN₀ = 2.3

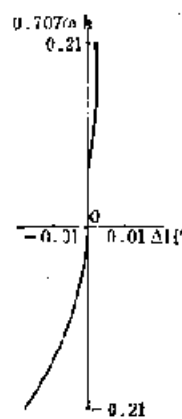
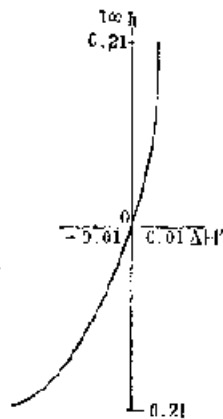
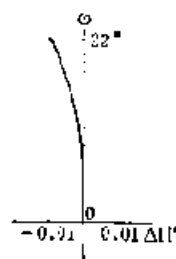
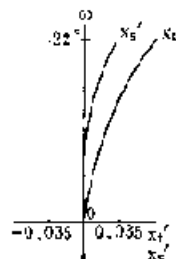
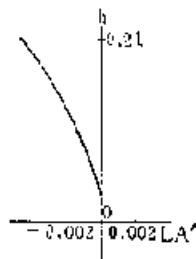
F A. = ± 22° **



序号	r	d	n _D	v	序号	r	d	n _D	v
1	1.300	0.0700	1.515		8	3.000	0.0150	1.803	
2	1.700	0.0010			9	0.300	0.1900*		
3	0.700	0.0800	1.700		10	0.280	0.0200	1.530	
4	3.000	0.0070			11	1.700	0.1200	1.730	
5	0.100	0.0700	1.600		12	0.400	0.0015		
6	0.750	0.0350			13	3.950	0.0730	1.741	
7	1.300	0.0630	1.770		14	-0.735			

C.1900* = 0.1000 ÷ 0.0900

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	HI	OP(1ω)
	-0.0051	-0.0013	0.0024	0.0010	0.0032	0.399	-2.55%
h 或 ω%	LA'	ΔH'	x _t	x _s	x _t ² x _s ²	K _{T1}	K _{T1.7}
100	-0.0014	-0.010	0.071	0.030	0.041	-0.011	-0.0019
70	-0.0025	-0.0029	0.035	0.010	0.024	-0.0080	-0.0035



编号: 02-00 034

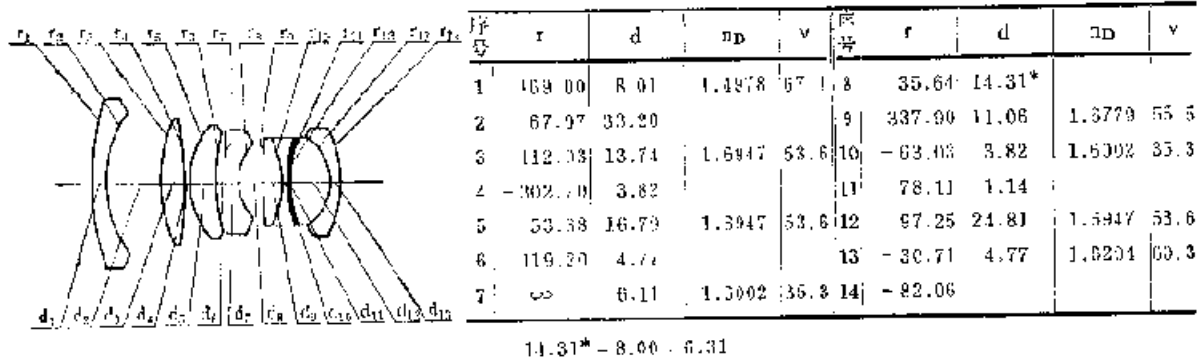
大 孔 径 物 镜

E. F. L = 100

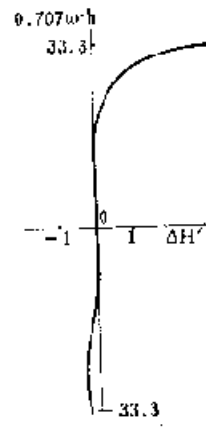
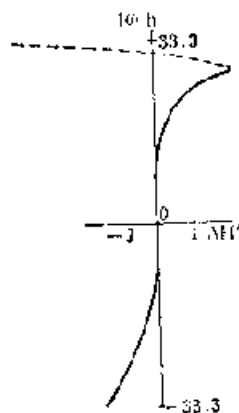
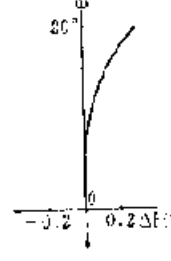
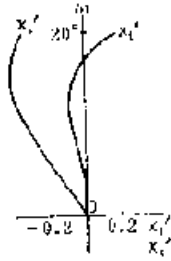
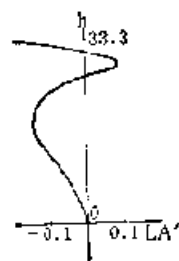
B. F. L = 68.16

FNo. - 1.5

F. A. = $\pm 20^{\circ}$ **



	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	$Q' (1m)$
	-0.20	-0.14	0.031	-0.21	0.11	36.94	0.76%
h 或 $\omega\%$	LA'	$\Delta H'$	x'_t	x'_s	$x'_t - x'_s$	K'_{x1}	$K'_{x0.5}$
100	0.19	0.28	0.17	-0.26	0.53		-0.036
70	-0.12	0.077	-0.099	-0.41	0.31	1.48	-0.004



编号: 02-00 035

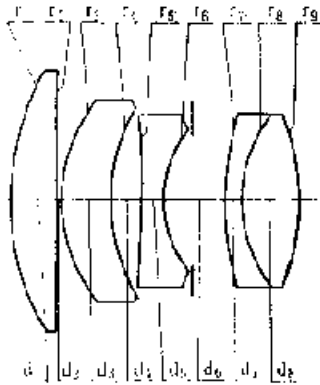
摄影物镜

E. F. L = 100

B. F. L = 41.55

FN₀ = 1.5

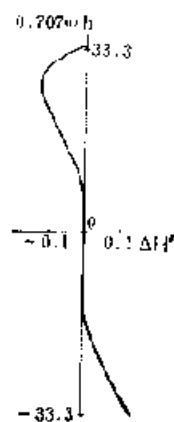
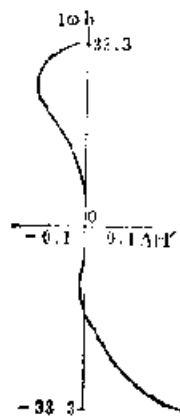
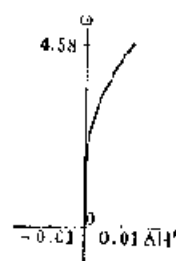
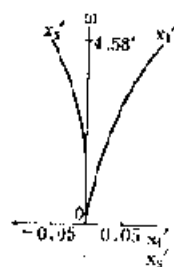
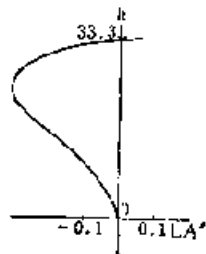
F. A. = $\pm 4.58^\circ$ **



序号	r	d	n_D	v_D	序号	r	d	n_D	v_D
1	70.61	12.72	1.6204	60.3	6	30.88	17.75*		
2	-751.28	0.59			7	95.41	4.08	1.6034	38.0
3	42.19	14.05	1.6204	60.3	8	39.19	15.78	1.6584	50.8
4	57.20	8.09			9	-71.15			
5	-722.95	6.21	1.7283	28.3					

17.75* = 7.90 + 9.85

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1%)
	-0.23	-0.038	0.018	-0.029	0.0081	8	0.15%
h 或 $\omega\%$	LA'	$\Delta H'$	x'_1	x'_2	$x'_3 - x'_4$	$K'_{2.1}$	$K'_{1.7}$
100	0.054	0.012	0.102	-0.048	0.150	0.12	-0.030
70	-0.341	0.0049	0.055	-0.024	0.070	0.058	0.030



编号: 02-00-036

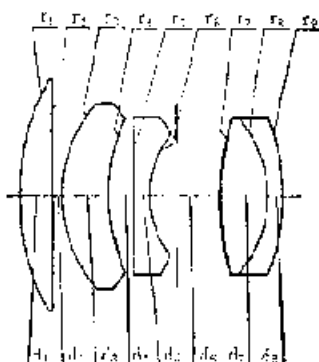
摄影物镜

E. F. L = 100

B. F. L = 46.82

FNo. = 1.5

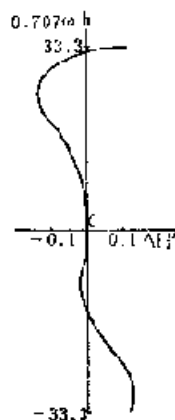
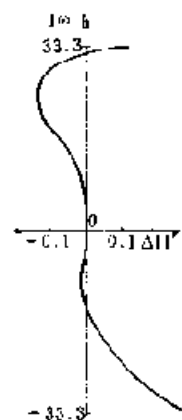
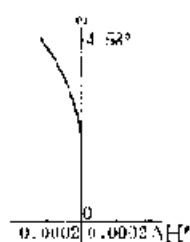
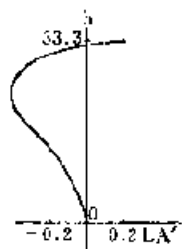
F. A. = $\pm 4.58^{\circ}$ **



$\frac{h}{l}$	r	d	n_D	v_D	$\frac{h}{l}$	r	d	n_D	v_D
1	67.77	12.25	1.6331	60.7	6	29.77	20.90*		
2	-753.45	0.66			7	89.09	15.20	1.6584	50.8
3	41.20	14.10	1.6204	60.3	8	-34.00	5.24	1.5814	40.8
4	55.09	7.79			9	-70.63			
5	-707.41	4.85	1.7100	28.2					

20.90* = 2.00 + 12.90

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP (%)
	-0.33	-0.040	0.021	-0.028	-0.00009	8	-0.005%
h 或 $\omega\%$	LA'	$\Delta H'$	x_+	x_+	$x_+^2 - x_+^2$	K_{11}^2	K_{21}^2
100	0.28	-0.00024	0.140	-0.023	0.171	0.20	-0.034
70	-0.43	-0.00005	0.075	-0.016	0.092	0.12	-0.023



编号: 02-00-037

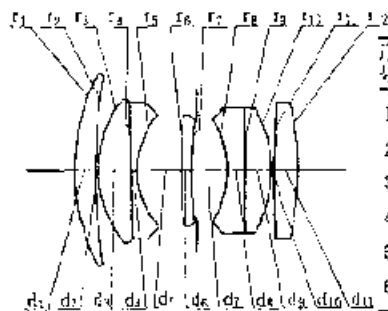
摄影物镜

E. F. L = 1

B. F. L = 0.692

FNo. - 2

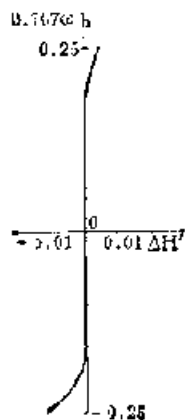
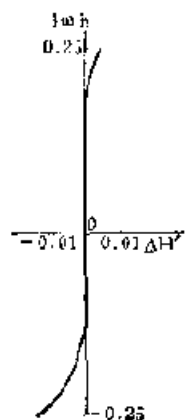
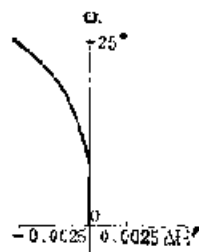
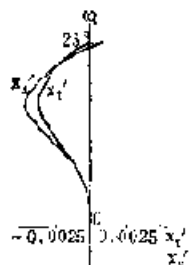
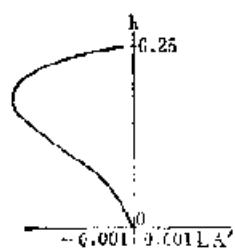
F. A. - $\pm 25^\circ$



序号	r	d	n _D	v	序号	r	d	n _D	v
1	0.35131	0.03695	1.74400	44.90	7	1.17235	0.10333*		
2	1.75435	0.00384			8	-0.30730	0.05937	1.72825	28.34
3	0.35799	0.03913	1.62041	60.20	9	-5.06331	0.07375	1.74400	44.90
4	7.51599	0.01477	1.58140	40.80	10	-0.40725	0.00384		
5	0.25314	0.13733			11	3.70875	0.07375	1.74400	44.90
6	1.78127	0.02954	1.62004	36.34	12	-0.89225			

$$0.10633^* = 0.00100 + 0.10533$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H	OP(1%)
	-0.0014	0.00056	0.00016	-0.0022	-0.0007	0.46	-1.23%
h 或 $\omega\%$	L.A'	$\Delta H'$	x'_1	x'_2	$x'_4 - x'_5$	K'_{T1}	$K'_{T0.7}$
100	-0.00034	-0.0037	-0.00026	0.00350	-0.00076	-0.0037	-0.0017
70	-0.0034						



编号: 02-00-038

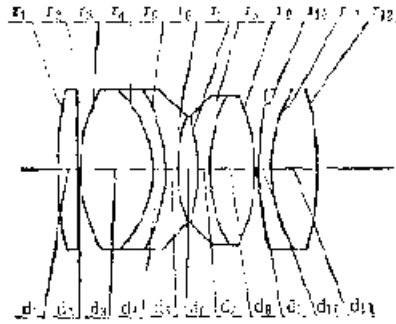
大 孔 径 物 镜

E. F. L = 60

B. F. L = 34.2

FN₀ = 2

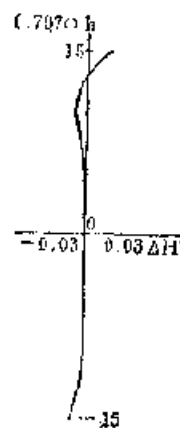
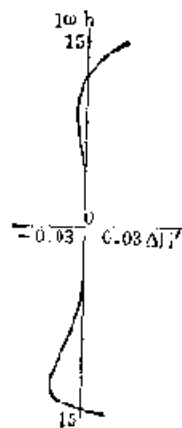
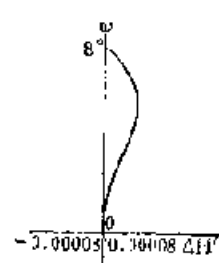
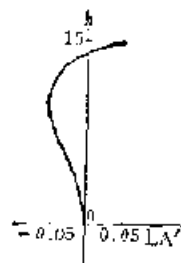
F. A. = ± 8' **



序 号	r	d	n	v	序 号	r	d	n	v
1	78.94	4.60	1.7174	29.57	7	-24.32	2.50	1.6200	36.3
2	∞	0.20			8	29.02	3.50	1.6200	60.3
3	33.61	15.16	1.6200	38.09	9	-37.55	0.20		
4	-21.22	2.50	1.6148	51.10	10	61.24	2.50	1.7174	29.5
5	-32.22	2.50	1.7174	29.57	11	29.02	3.30	1.6200	60.3
6	24.62	4.60*			12	-58.09			

4.00* = 2.00 + 2.00

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF (1.0)
	-0.031	-0.0028	0.013	-0.039	0.00023	8.45	0.0001%
h 或 ω%	LA'	$\Delta^1 P'$	x_t	x_s^*	$x_t^* - x_s^*$	K_{21}^*	$K_{20.7}$
100	0.350	0.000000	0.025	-0.194	0.219	0.028	-0.010
70	-0.356	0.00008	0.0082	-0.100	0.108	0.0038	-0.0078



编号: 02-00-039

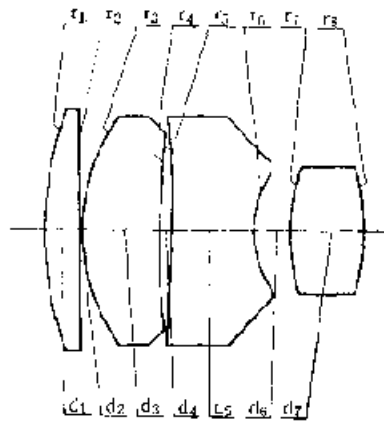
四 片 式 物 镜

E. F. L = 100

B. F. L = 38.84

FNo. = 1.4

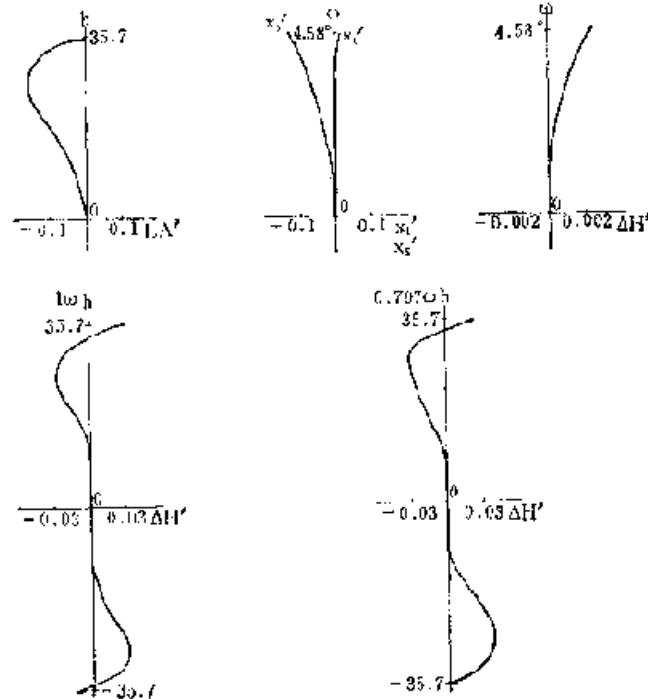
F. A. = $\pm 4.58''$ **



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	132.94	11.73	1.62061	30.3	5	-531.10	28.12	1.72825	28.3
2	3619.00	0.77			6	36.23	12.27*		
3	60.83	27.31	1.65160	38.5	7	84.94	28.57	1.71300	53.9
4	327.30	3.12			8	-65.80			

$$12.27^* = 6.00 + 6.27$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HU	QP (1%)
	0.12	0.00043	0.017	-0.051	0.0020	8	0.027%
h 或 ω 毫	LA'	ΔIP	x'_1	x'_2	$x'_1 - x'_2$	Z'_{T1}	$K'_{T0.7}$
100	-0.0092	0.0022	0.0084	-0.131	0.139	0.0097	-0.00055
70	-0.16	0.00090	0.1032	-0.066	0.069	0.0088	0.0012



编号: 02-00-040

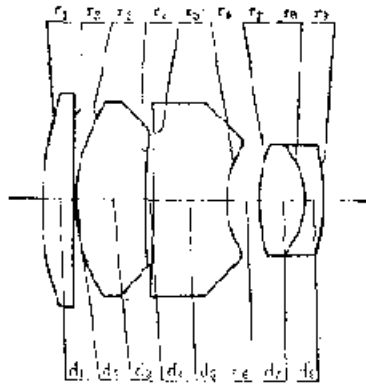
四 组 元 物 镜

E. F. L = 100

B. F. L = 38.35

FN₀ = 1.2

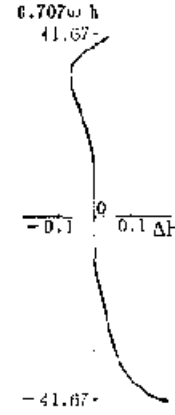
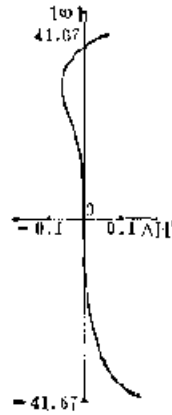
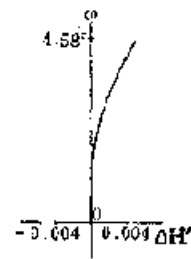
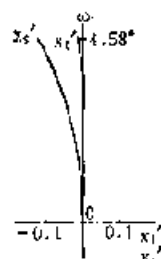
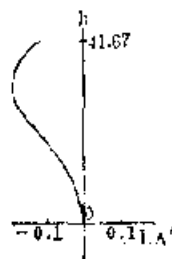
F. A. = ± 4.58' **



序号	r	d	n _D	v	序号	r	d	n _D	v
1	128.12	11.23	1.62061	60.3	6	34.74	11.83*		
2	3488.00	0.74			7	64.36	17.25	1.71800	53.9
3	64.51	26.61	1.65830	57.5	8	-31.15	7.39	1.65850	57.0
4	307.60	3.01			9	-103.49			
5	-534.30	27.11	1.72832	28.3					

$$11.83^* = 6.00 + 5.83$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H	QP (100)
	-0.23	-0.0045	0.019	0.003	0.0000	8	0.062%
h 或 ω%	LA'	ΔH'	x ₁ '	x ₂ '	x ₃ ' x ₄ '	K _T	K _{T0.7}
100	-0.12	0.0049	-0.011	-0.120	0.108	0.18	-0.0077
70	-0.20	0.0018	-0.0068	-0.054	0.086	0.11	-0.0034



编号: 02-00-041

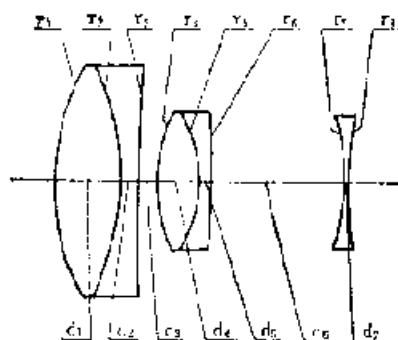
用于摄影或放映的物镜

E. F. L = 94

B. F. L = -1.85

FNo. = 1.45

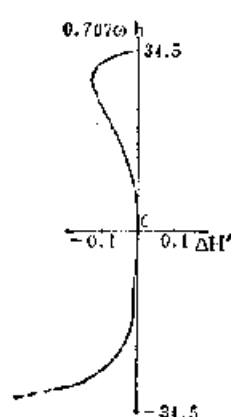
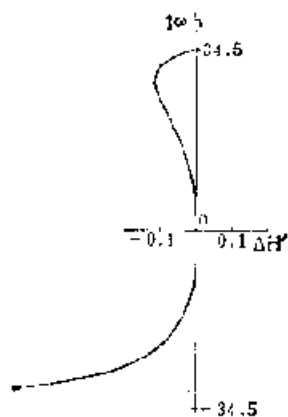
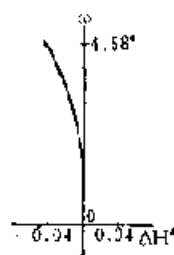
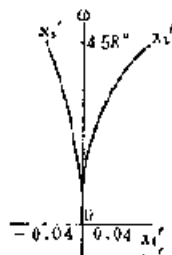
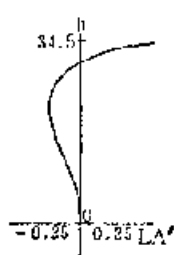
F. A. = $\pm 4.58^{\circ}$ **



序号	r	d	n _D	v	序号	r	d	n _D	v
1	70.91	19.50	1.5625	50.9	5	-42.72	3.50	1.6166	36.6
2	-21.41	5.50	1.6689	30.1	6	-589.33	40.00		
3	677.10	65.00*			7	75.93	1.35	1.5171	64.1
4	51.37	12.10	1.5932	58.1	8	138.25			

65.00* = 25.00 + 39.00

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HJ	QF(1 ω)
	-0.27	-0.023	0.014	-0.026	-0.030	7.54	-0.56%
ω 或 $\omega\%$	LA'	$\Delta H'$	x'_1	x'_2	$x'_1 - x'_2$	Kf_1	$Kf_{0.7}$
100	0.51	-0.042	0.078	-0.040	0.118	-0.52	-0.12
70	-0.24	-0.015	0.035	0.021	0.056	-0.35	-0.084



编号: 02-00-042

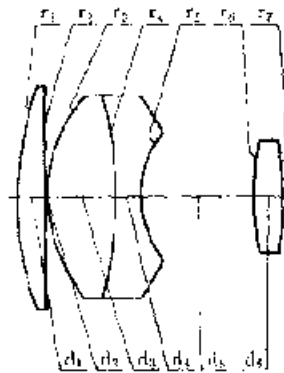
用于摄影、电影摄影和放映的大孔径物镜

E. F. L = 1

B. F. L = 0.368

FNo. = 1.4

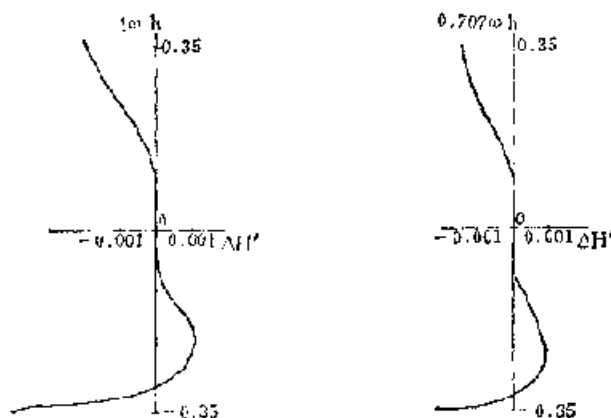
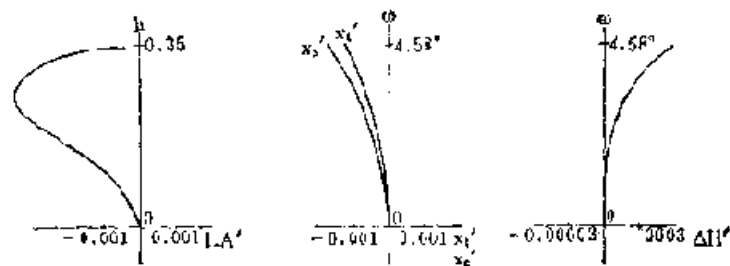
F. A. = $\pm 4.58^\circ$ **



$\frac{r}{\text{mm}}$	r	d	n_D	v	$\frac{r}{\text{mm}}$	r	d	n_D	v
1	1.04000	0.10000	1.74400	44.90	5	0.36840	0.58000*		
2	11.02800	0.00200			6	0.89876	0.10000	1.74400	44.90
3	0.32034	0.24000	1.63854	55.48	7	1.76742			
4	-1.34239	0.08000	1.75182	26.52					

$$0.58000^* = 0.19000 + 0.19000$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H	QP(1%)
	-0.0027	0.00027	0.000354	-0.00030	0.000044	0.05	0.058%
h 或 ω %	$\Delta A'$	$\Delta H'$	x_1'	x_2'	$x_1' - x_2'$	K_{11}'	$K_{10.7}'$
100	-0.00042	0.000055	-0.0012	-0.0017	0.00051	-0.0028	-0.00013
70	-0.0035	0.000020	-0.00084	-0.00088	0.00004	-0.0018	-0.000060



编号: 02-00-043

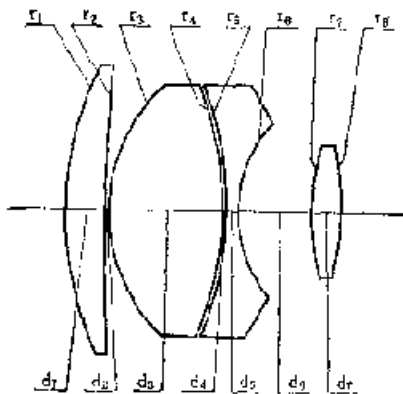
用于摄影、电影摄影和放映的大孔径物镜

E. F. L = 1

B. F. L = 0.424

FNo. = 1.3

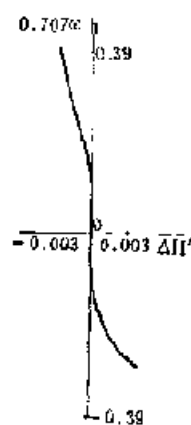
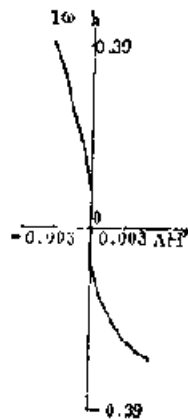
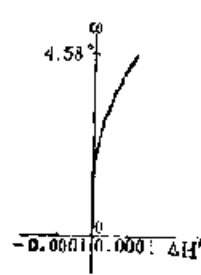
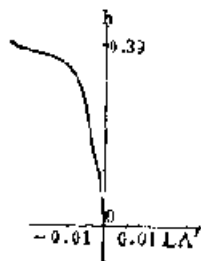
F. A. = $\pm 4.58''$ **



序号	r	d	n _D	v	序号	r	d	n _D	v
1	0.02060	0.12000	1.78443	43.77	5	-1.10030	0.05000	1.78470	26.10
2	4.68920	0.00300			6	0.38335	0.22500*		
3	0.51855	0.35000	1.53996	59.66	7	0.90790	0.08000	1.78443	43.77
4	-1.10030	0.00300			8	-1.35005			

$$0.22500^* = 0.10000 + 0.12500$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF(100)
	-0.0052	0.00043	0.000027	-0.00057	0.00010	9.98	0.15%
h 或 ω %	LA'	$\Delta H'$	x_1'	x_2'	$x_1' - x_2'$	K_{T1}^f	$K_{T(1.7)}^f$
100	-0.026	0.00012	-0.0015	-0.0017	0.00018		0.0017
70	-0.0066	0.000045	-0.00079	-0.00088	0.000094		0.00090



编号: 02-C0-044

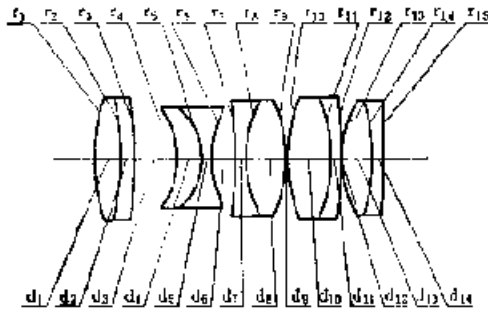
消球差、色差、象散和彗差的大孔径摄影物镜

E. F. L = 100

B. F. L = 66.8

FNo. = 0.9

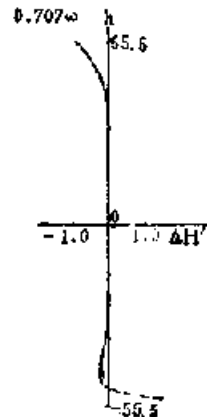
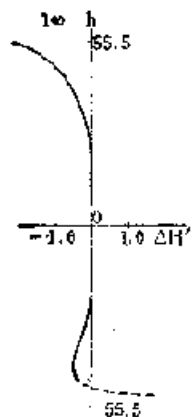
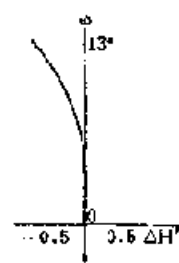
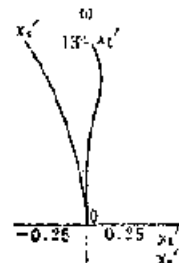
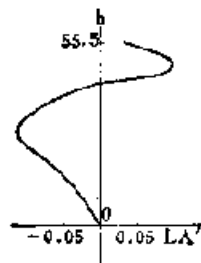
F. A. = $\pm 13^\circ$



序号	r	d	n _D	v	序号	r	d	n _D	v
1	212.20	23.48	1.74400	44.9	9	-139.08	1.56		
2	237.30	11.74	1.54769	33.9	10	180.00	20.00	1.71300	53.9
3	-548.80	37.56			11	-156.50	9.40	1.74077	27.7
4	-82.90	21.12	1.74077	27.7	12	-612.20	1.56		
5	-57.44	9.40	1.58144	40.8	13	119.12	25.06	1.71300	53.9
6	105.50	21.12*			14	-203.70	9.40	1.74077	27.7
7	-323.70	9.40	1.57270	52.2	15	-1306.00			
8	116.75	34.44	1.71300	53.9					

21.12* = 10.00 - 11.12

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1m)
	-0.51	0.20	0.23	-0.56	0.01	22.36	-3.36%
h 或 ω %	LA'	$\Delta H'$	x'_t	x'_s	x'_t x'_s	K'_{T1}	$K'_{T0.7}$
100	0.024	-0.73	0.025	-0.430	0.455		-0.42
70	-0.337	-0.26	0.083	-0.240	0.323		-0.10



编号: 02-00-045

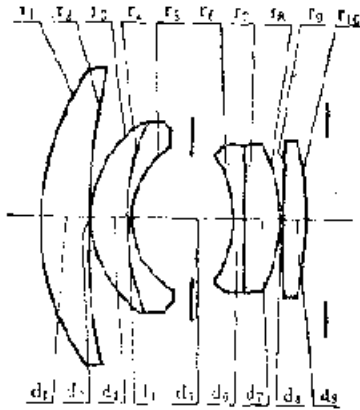
大 孔 径 摄 影 物 镜

E. F. L = 1

B. F. L = 0.63664

FNo. = 1.9

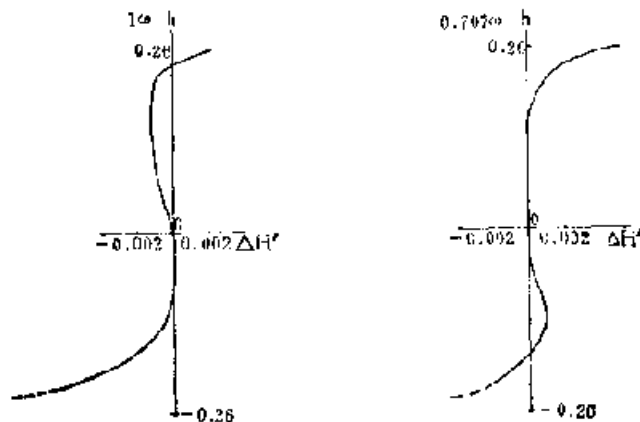
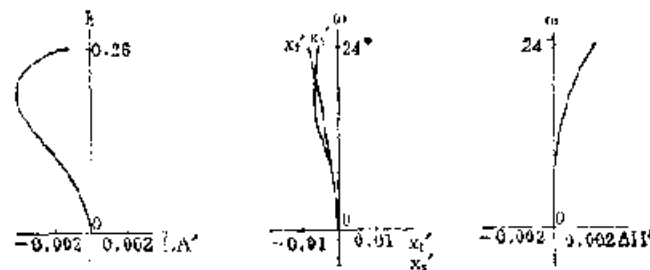
F. A. = $\pm 24'$



序号	r	d	n _D	v _D	序号	r	d	n _D	v _D
1	0.73853	0.12463	1.52000	50.01	6	-0.31542	0.03865	1.59385	30.05
2	2.26732	0.00103			7	-5.25016	0.09693	1.60100	51.30
3	0.31416	0.09801	1.65830	57.29	8	-0.39155	0.00034		
4	0.62268	0.07642	1.65446	33.79	9	5.42415	0.05061	1.74050	35.00
5	0.23655	0.27818*			10	-0.92023			

$$0.27818^* = 0.18000 + 0.09818$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP(1%)
	0.0017	0.00077	0.000009	-0.0028	0.0014	0.45	0.19%
h 或 ω %	'LA'	$\Delta H'$	x'_1	x'_2	$x'_1 - x'_2$	K'_{T1}	$K'_{T0.7}$
100	-0.0012	0.0021	-0.0089	-0.0075	-0.0014	-0.0080	-0.0018
70	-0.0013	0.00082	-0.0054	-0.0071	0.0016	-0.0019	-0.00007



编号: 02-00-046

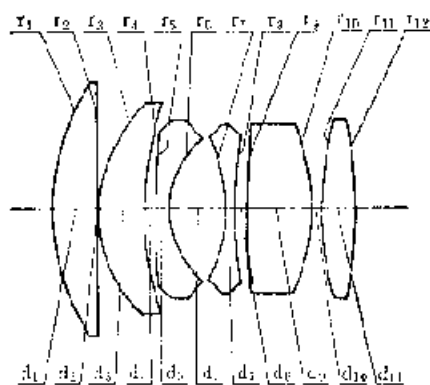
六 片 式 物 镜

E. F. L = 100

B. F. L = 56.6

FNo. = 1.6

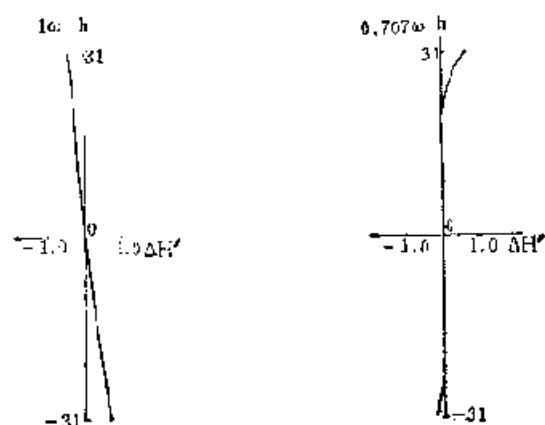
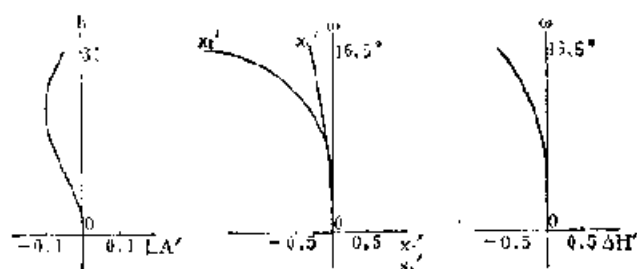
F. A. = 16.5' **



序 号	r	d	n_D	v_D	序 号	r	d	n_D	v_D
1	60.741	12.76	1.6203	60.2	7	-41.538	2.38	1.7270	23.5
2	1029.586	0.13			8	174.265	3.37		
3	39.890	12.00	1.6054	60.4	9	305.105	17.73	1.6242	46.9
4	93.753	2.42			10	57.444	2.55		
5	203.534	3.57	1.6057	58.6	11	88.333	9.57	1.6203	60.2
6	21.899	15.05*			12	-112.535			

$$15.05^* = 8.50 + 6.55$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP(100)
	-0.080	-0.045	0.002	0.17	-0.27	22.76	-2.37%
Γ 或 ω %	LA'	$\Delta H'$	x'_t	x'_s	$x'_t \quad x'_s$	K'_t	$K'_{10.7}$
100	-0.048	-0.68	-1.76	-0.25	-1.50	0.052	-0.040
70	-0.10	-0.19	-0.33	-0.21	-0.12	0.16	-0.024



编号: 02-00-047

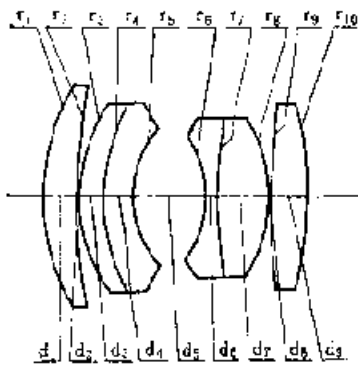
摄影物镜

E.F.L=101

B.F.L=73.7

FNo.=2

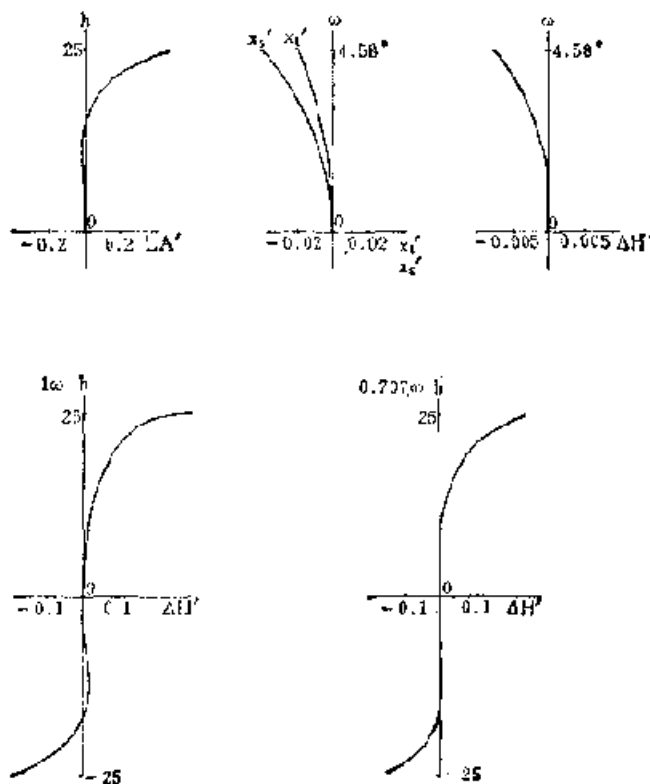
F.A.=+4.58' **



序号	r	d	n _D	v	序号	r	d	n _D	v
1	57.9	8.2	1.66200	56.1	6	-30.1	3.8	1.50156	35.2
2	174.9	0.2			7	137.0	14.1	1.66200	56.1
3	43.5	6.7	1.66200	56.1	8	-42.8	0.3		
4	53.5	8.4	1.67246	32.5	9	227.3	9.5	1.66200	56.1
5	26.7	19.9*			10	-96.0			

19.9* = 10.0 + 9.9

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QPL (%)
	-0.026	0.0063	0.0013	-0.0066	-0.0035	8	-0.089%
h 或 ω %	LA'	$\Delta H'$	x'_t	x'_s	$x'_t - x'_s$	K'_{T1}	$K'_{T1.7}$
100	0.46	0.0072	0.021	-0.042	0.021	0.047	0.321
70	0.055	-0.0025	-0.010	-0.021	0.011	0.036	0.915



编号: 02-00-048

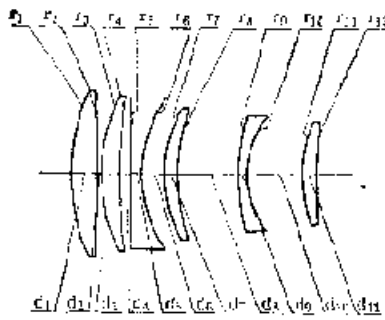
远 摄 物 镜

E. F. L = 122

B. F. L = 47.5

FNo. = 1.9

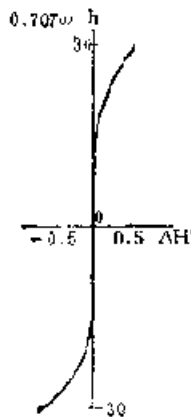
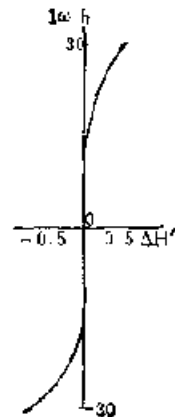
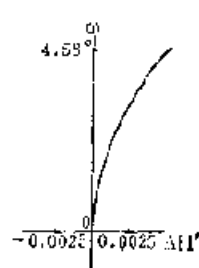
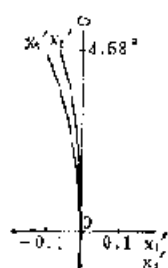
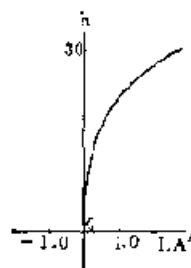
F. A. = $\pm 4.58''$



序号	r	d	n_D	v	序号	r	d	n_D	v
1	61.96	8.00	1.51771	62.9	7	39.36	4.00	1.60736	55.7
2	-940.79	0.27			8	60.02	18.67*		
3	49.30	6.67	1.60729	59.5	9	67.40	2.67	1.74080	28.0
4	200.19	3.97			10	27.21	17.34		
5	∞	3.33	1.64769	33.9	11	43.00	4.00	1.64769	33.9
6	40.50	6.67			12	202.50			

18.67* = 9.00 + 9.67

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QI'(1 ω)
	0.11	0.0035	0.0023	-0.014	0.0034	8.6	0.062%
h 或 ω %	IA'	AI'	x'_s	x'_e	$x'_e - x'_s$	K'_{F1}	$K'_{F0.7}$
100	2.68	0.0051	-0.062	-0.098	0.036	-0.13	-0.015
70	0.84	0.0022	-0.031	-0.050	0.019	-0.099	-0.014



编号: 02-00-049

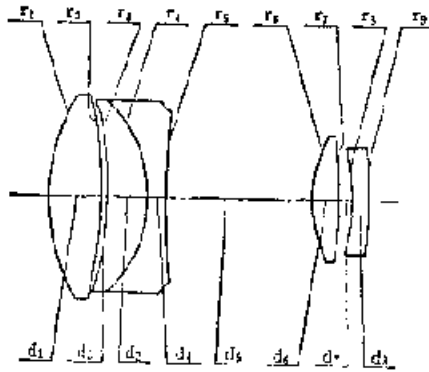
消色差、球差、象散和彗差的大孔径达尔美尔型摄影物镜

E. F. L = 100

B. F. L = 36.5

FNo. = 1.4

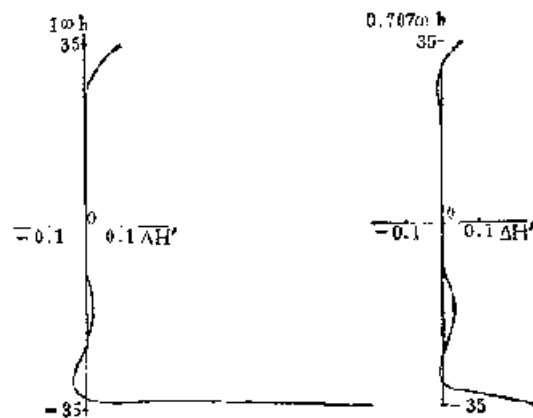
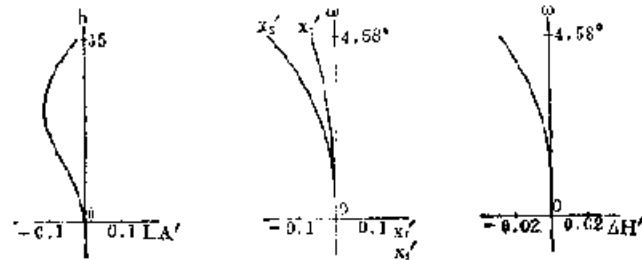
F. A. = $\pm 4.58''$



序号	r	d	n_D	v	序号	r	d	n_D	v
1	73.64	19.28	1.6073	59.5	6	56.58	9.64	1.6516	18.5
2	-173.64	3.80			7	131.21	5.69		
3	-120.30	13.77	1.7408	28.0	8	-71.62	5.51	1.7408	28.0
4	-46.75	6.88	1.7174	29.5	9	-305.78			
5	373.09	55.10*							

55.10* = 25.00 + 30.10

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	FI	QF(1 ω)
	-0.14	0.018	0.015	-0.063	-0.019	8	-0.36%
h 或 ω %	LA'	$\Delta H'$	x'_t	x'_s	$x'_t - x'_s$	K'_{11}	$K'_{10.1}$
100	-0.076	-0.029	-0.062	-0.152	0.130	0.47	-0.0097
70	-0.12	-0.010	-0.034	-0.098	0.064	0.15	-0.0044



编号: 02-00-050

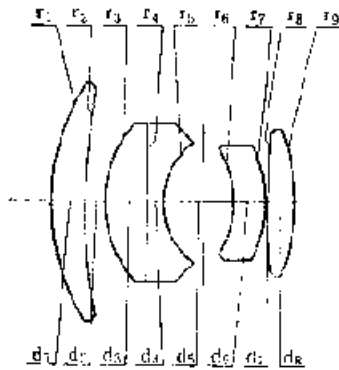
摄影及放映用的大孔径物镜

E. F. L=1

B. F. L=0.579

FN₀ = -2.5

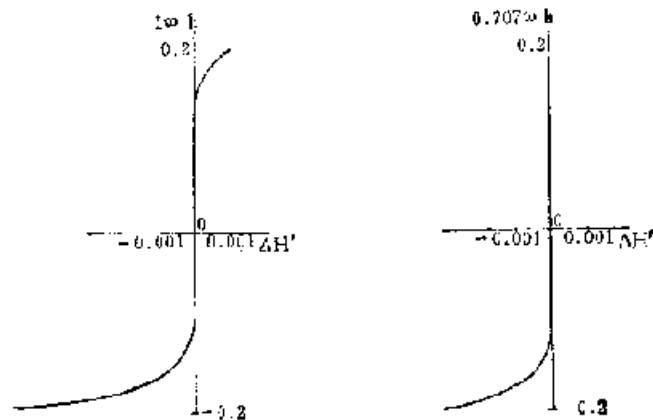
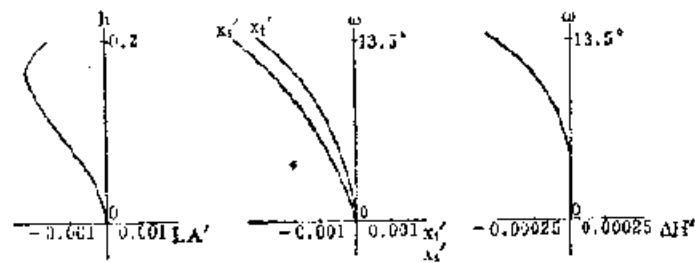
F. A. = ±13.5°



序号	r	d	n _D	v _D	序号	r	d	n _D	v _D
1	0.8010	0.0931	1.658	50.8	6	-0.2739	0.0783	1.755	27.5
2	1.8430	0.0521			7	-0.4378	0.0094		
3	0.3211	0.1118	1.658	50.8	8	2.2670	0.0699	1.639	55.5
4	∞	0.0480	1.673	32.2	9	-0.5240			
5	0.2100	0.1834*							

$$0.1834^* = 0.1000 + 0.0834$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H'	QP(1°)
	-0.00017	0.000000	0.000091	-0.00044	-0.000054	0.23	-0.24%
h 或 ω %	I A'	ΔH'	x ₁ '	x ₂ '	x ₃ ' - x ₂ '	K _{A1}	K _{A1.7}
100	-0.0017	-0.00056	-0.0027	-0.0033	0.00059	-0.0020	-0.00013
70	-0.0020	-0.00012	-0.0012	-0.0019	0.00077	-0.0015	-0.00013



编号: 02-00-051

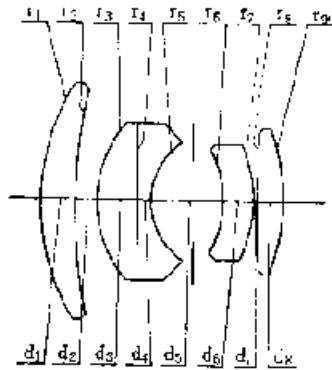
摄影及放映用的大孔径物镜

E. F. L = 1

B. F. L = 0.564

FN₀ = 2

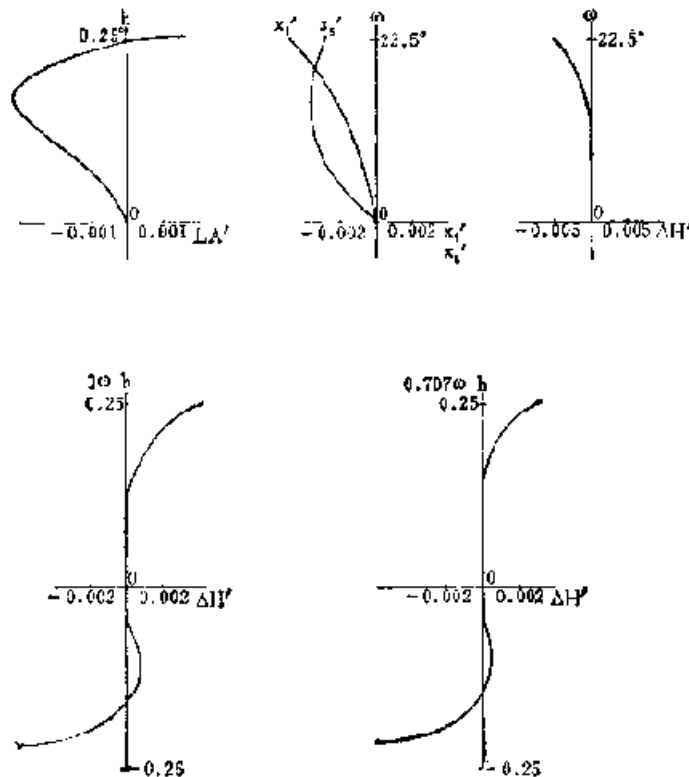
F. A. = +22.5°



序号	r	d	n _D	v _D	序号	r	d	n _D	v _D
1	0.5379	0.0948	1.744	44.9	6	-0.2665	0.0673	1.755	27.5
2	1.1950	0.0577			7	-0.3913	0.0192		
3	0.3289	0.1138	1.717	47.9	8	7.0923	0.0712	1.713	53.9
4	1.9231	0.0173	1.728	28.7	9	-0.5150			
5	0.2263	0.2212*							

$$0.2212^* = 0.1100 + 0.1112$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF(100°)
	-0.0015	0.00017	0.00027	-0.0018	0.00037	0.41	-1.21%
h 或 ω %	LA'	ΔH'	x'_1	x'_2	x'_1 - x'_2	K _{T1}	K _{T0.1}
100	0.0017	-0.0050	-0.0047	-0.0039	-0.0017	-0.010	-0.00016
70	-0.0032	-0.00061	-0.0027	-0.0041	0.0014	-0.0084	-0.00055



编号: 02-00-052

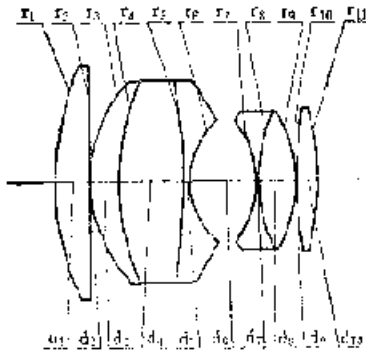
四组元大孔径高斯物镜

E. F. L = 1

B. F. L = 0.527

FNo. = 1.5

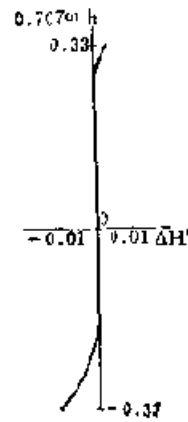
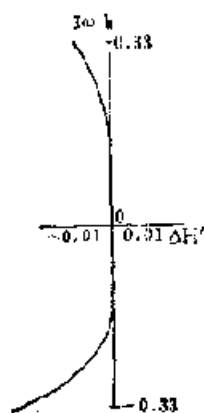
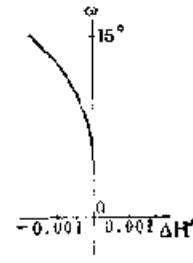
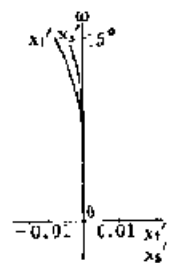
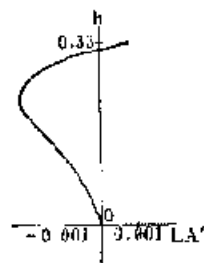
F. A. = $\pm 15^\circ$



序号	r	d	n _D	v _D	15°	r	d	n _D	v _D
1	0.827	0.105	1.6228	56.9	7	-0.310	0.016	1.5317	48.9
2	0.300	0.002			8	0.572	0.103	1.5084	56.8
3	0.440	0.088	1.6285	55.5	9	0.440	0.002		
4	0.800	0.150	1.5183	64.0	10	1.500	0.060	1.6385	55.5
5	-1.850	0.020	1.6089	51.1	11	-0.816			
6	0.252	0.190*							

0.190* = 0.100 + 0.090

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF(10°)
	-0.0020	0.00053	0.00010	-0.0013	-0.00028	0.28	-0.66%
或 QF	$\Delta A'$	$\Delta H'$	x'_1	x'_2	$x'_2 - x'_3$	K'_{H1}	$K'_{10.7}$
	-0.00088	-0.0017	-0.0076	-0.0024	-0.0032	-0.017	-0.0037
	-0.0024	-0.00038	-0.0028	-0.0020	-0.0008	-0.0039	-0.0010



编号: 02-00-053

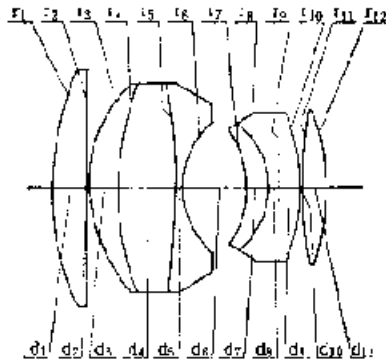
四组元大孔径高斯物镜

E. F. L = 1.03

B. F. L = 0.578

FNo. = 1.4

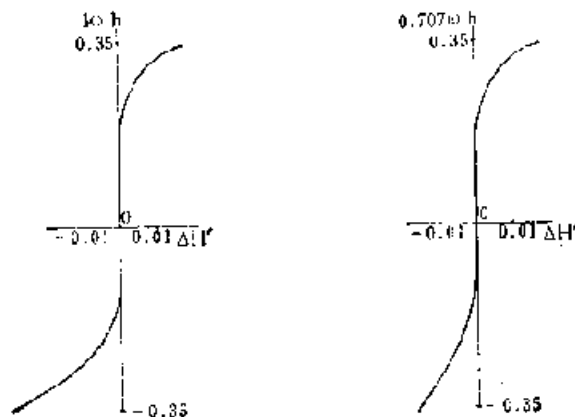
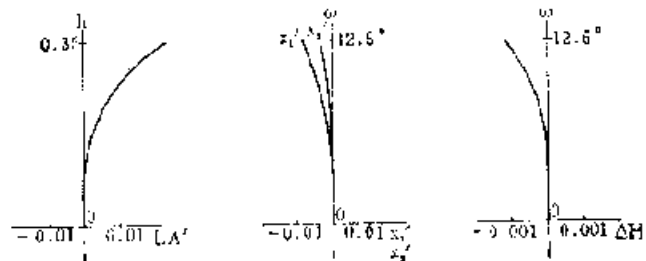
F. A. = $\pm 12.5^\circ$



序号	r	d	r_D	v_D	序号	r	d	r_D	v_D
1	0.855	0.105	1.6204	60.3	7	-0.304	0.069	1.5891	61.2
2	∞	0.002			8	-0.227	0.039	1.5263	51.0
3	0.440	0.085	1.6385	55.5	9	-5.710	0.058	1.6385	55.5
4	0.900	0.178	1.5163	64.0	10	-0.539	0.003		
5	-1.700	0.020	1.6727	32.2	11	1.300	0.065	1.6385	55.5
6	0.247	0.190*			12	-0.680			

0.190* = 0.100 + 0.090

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	F	QE(100)
	0.0013	-0.00334	-0.00014	-0.00053	-0.00031	9.23	-0.32%
1 或 ω %	LA'	$\Delta H'$	λ'_1	λ'_2	$\lambda'_3 - \lambda'_2$	K_{T1}	$K_{T0.1}$
100	0.023	-0.0012	-0.0083	0.0018	0.0065	-0.0057	-0.0033
70	0.0063	-0.00035	-0.0031	-0.0012	-0.0019	0.00086	-0.0016



编号: 02-00-054

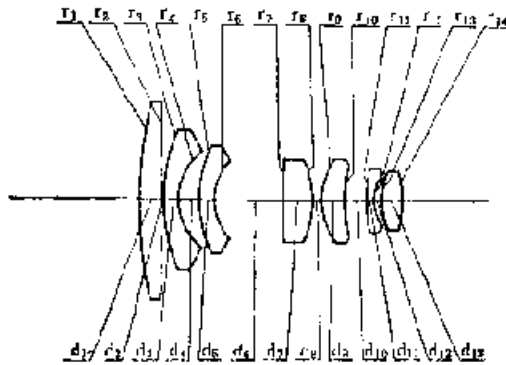
具有负前组的大孔径物镜

E. F. L = 100

B. F. L = 124.8

FN₀ = 2

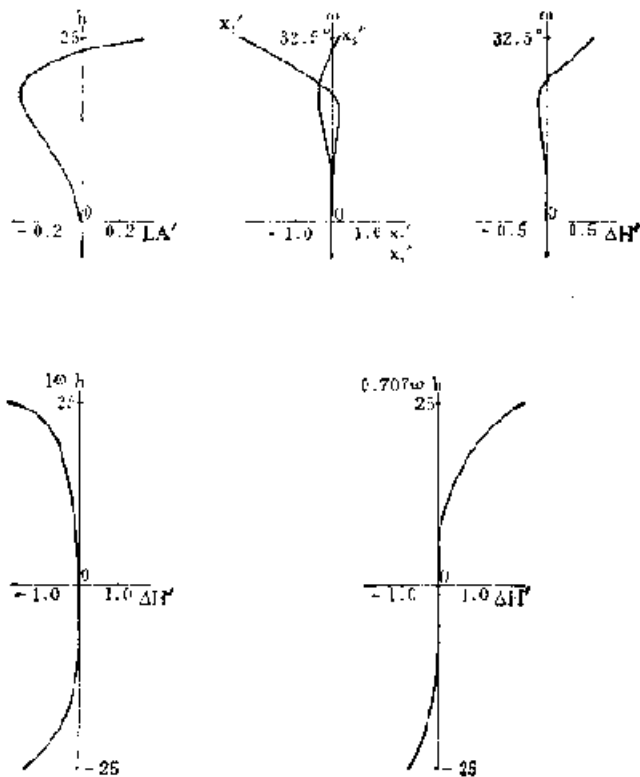
F. A. = ± 32.5°



序号	r	d	n _D	v _D	序号	r	d	n _D	v _D
1	645.25	32.3	1.7114	29.5	8	-155.10	14.0		
2	∞	5.9			9	101.05	37.0	1.5687	62.1
3	289.25	21.0	1.5587	63.1	10	250.15	32.0*		
4	89.04	32.0			11	246.20	9.5	1.8052	25.5
5	186.75	21.0	1.5322	42.0	12	66.15	10.8		
6	80.17	105.1			13	102.94	32.0	1.6779	55.5
7	985.60	44.6	1.5387	63.1	14	-196.14			

32.0* = 16.0 + 16.0

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	HI	QP(1ω)
	-0.16	0.28	-0.19	-0.20	-0.10	62.69	1.01%
h 或 ω %	LA'	ΔH'	x ₁ '	y ₁ '	x ₁ ' - x ₅ '	K _{T1}	K _{Tc.r}
100	0.24	0.63	-2.57	0.11	-2.68	-1.73	-0.45
70	0.25	-0.081	0.14	0.55	0.49	0.74	0.26



编号: 02-00-055

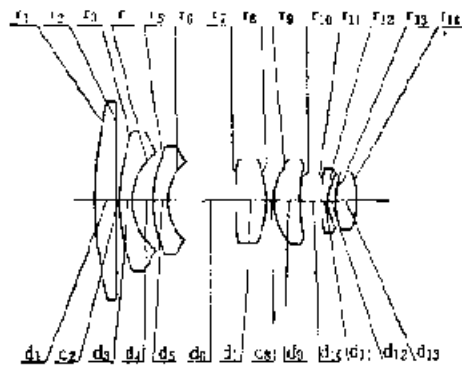
具有负前组的大孔径物镜

E. F. L = 100

B. F. L = 129.7

FNo. = 2

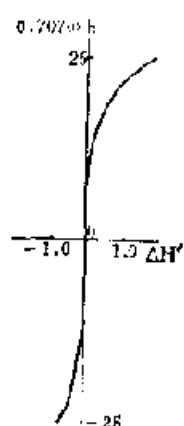
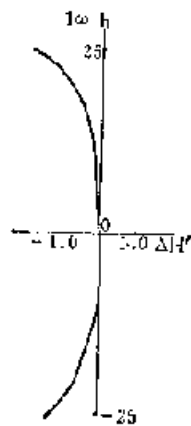
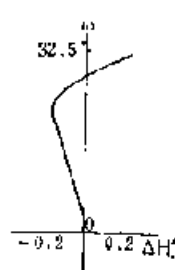
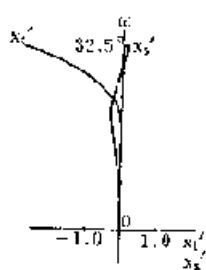
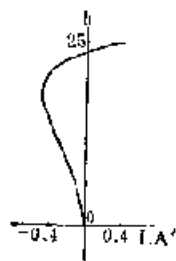
F. A. = $\pm 32.5^\circ$



序号	r	d	n_D	v_D	序号	r	d	n_D	v_D
1	737.70	30.5	1.6052	25.5	8	-170.10	9.0		
2	∞	5.0			9	108.12	38.0	1.6200	60.3
3	359.05	21.5	1.5225	59.1	10	249.10	35.0*		
4	91.64	35.7			11	371.08	8.5	1.6052	25.5
5	182.45	21.5	1.6477	33.9	12	70.42	9.5		
6	83.82	108.0			13	103.10	31.0	1.6935	53.6
7	1161.55	46.0	1.6200	60.3	14	-174.95			

35.0* = 17.5 + 17.5

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1 ω)
	-0.21	0.20	-0.004	-0.16	-0.31	62.72	0.36%
h 或 ω %	$\Delta A'$	$\Delta H'$	x'_1	x'_2	$x'_3 - x'_5$	K_{T1}	$K_{T6.7}$
100	0.43	0.21	-2.73	0.11	-2.84	-1.68	-0.49
70	-0.50	0.19	0.031	0.281	0.250	0.67	0.13



编号: 02-00-056

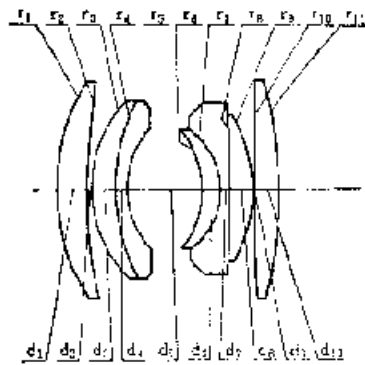
大 孔 径 摄 影 物 镜

E.F.L=1.05

B.F.L=0.725

FN₀ = 1.8

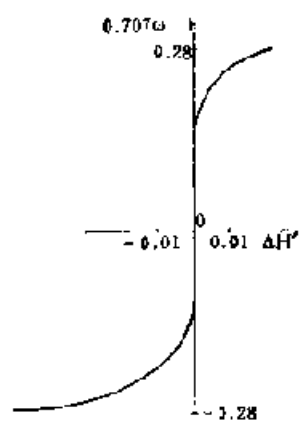
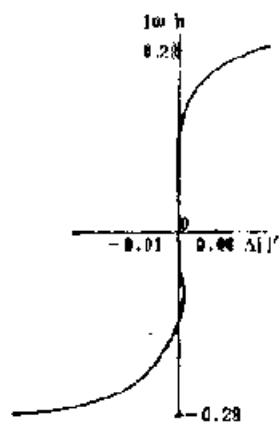
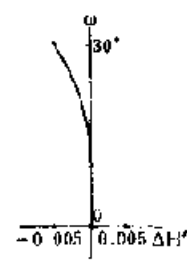
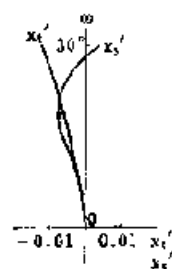
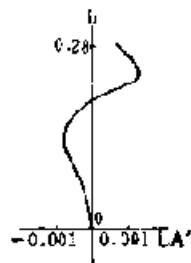
F.A. = $\pm 30^\circ$



序 号	r	d	n _D	v _D	序 号	r	d	n _D	v _D
1	0.579	0.097	1.6534	50.8	7	-0.215	0.026	1.5750	41.3
2	1.787	0.005			8	-3.299	0.069	1.6779	55.3
3	0.369	0.079	1.6534	50.8	9	-0.422	0.001		
4	0.373	0.032	1.6987	30.1	10	4.259	0.083	1.6395	55.5
5	0.267	0.230*			11	-1.057			
6	-0.297	0.055	1.6204	60.3					

0.230* = 0.120 + 0.110

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H'	$Q^2(1\omega)$
	-0.00089	-0.00074	0.00063	-0.00343	-0.00062	0.60	-0.85%
h 或 ω %	LA'	$\Delta H'$	x'_1	x'_2	$x'_1 - x'_2$	$K'_{1.1}$	$K'_{1.7}$
100	0.00087	-0.0051	-0.011	0.0036	-0.015	-0.012	-0.0029
70	-0.000093	-0.0011	-0.0086	-0.0089	-0.00056	-0.016	-0.0030



编号: 02-00-057

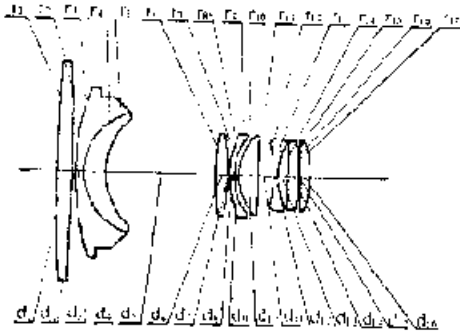
摄影或电影摄影用的广角物镜

E.F.L-100

B.F.L=126.9

FN₀=2

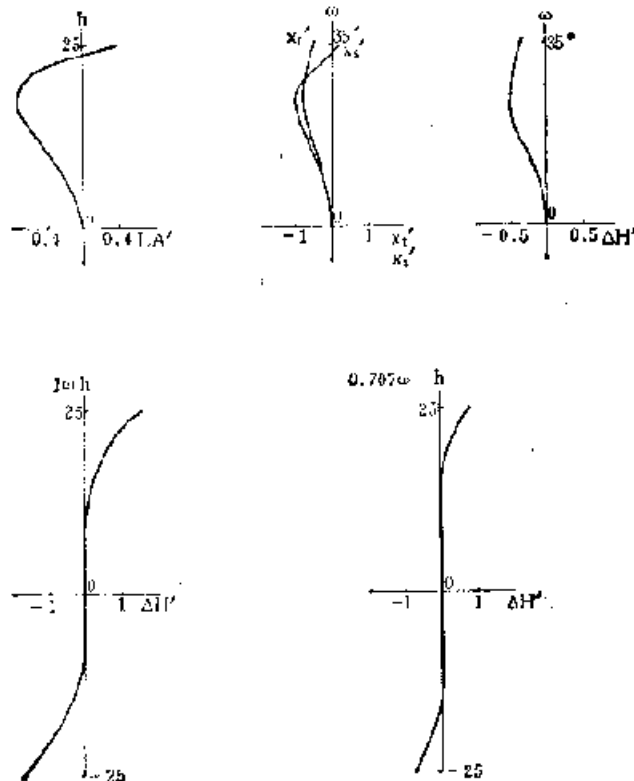
F.A.=±35°**



序号	r	d	n _D	v	序号	r	d	n _D	v
1	1451.90	16.43	1.52350	51.00	10	56.49	19.63	1.71700	47.90
2	-1451.90	2.49			11	15706.80	18.00*		
3	263.32	9.03	1.71760	47.90	12	-165.15	5.79	1.78470	23.10
4	67.70	24.93	1.61293	33.95	13	76.77	10.17		
5	78.34	123.04			14	991.49	11.78	1.71300	53.89
6	458.38	12.01	1.69968	34.95	15	-239.62	0.59		
7	-297.45	0.33			16	875.30	0.21	1.71300	53.89
8	104.55	6.02	1.62364	36.75	17	-102.45			
9	58.55	3.22							

$$18.00^* = 9.00 - 9.00$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(100)
	-0.29	0.044	-0.018	-0.31	-0.66	68.52	0.50%
h 或 ω %	LA'	ΔH'	x'_1	x'_2	$x'_3 - x'_4$	K'_{T1}	$S'_{T1.7}$
100	0.36	0.34	0.53	0.21	0.74	-0.11	-0.12
70	-0.72	-0.50	-0.85	-0.93	0.082	-0.025	-0.035



编号: 02-00-058

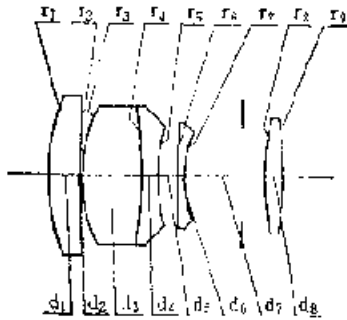
摄影或电影摄影用的大孔径物镜

E.F.L=100

B.F.L=44.59

FN₀=1.9

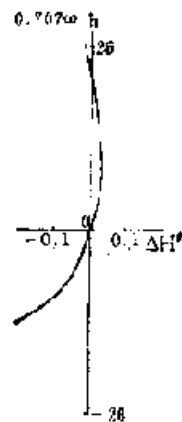
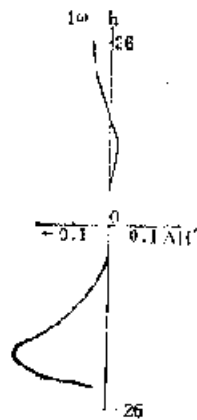
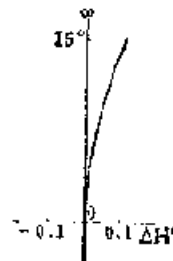
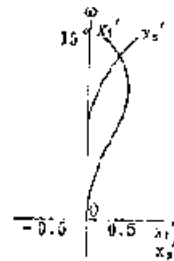
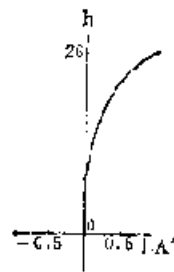
F.A.=±15°



序号	r	d	n _D	v	序号	r	d	n _D	v
1	59.04	8.91	1.7279	37.76	6	∞	1.67	1.747	27.50
2	1513.25	0.11			7	30.08	22.28*		
3	45.93	16.71	1.6255	57.87	8	83.52	5.57	1.748	36.25
4	-111.41	4.46	1.7471	27.50	9	-89.11			
5	54.60	5.57							

22.28* = 12.28 + 10.00

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	IB	QP(1ω)
	0.915	-0.077	0.12	-0.11	0.13	25.60	0.41%
h 或 ω %	L.A'	ΔH'	κ_1'	κ_2'	$\kappa_3' - \Delta_1'$	K_{T1}'	$K_{T0.7}'$
100	1.30	0.11	0.16	0.38	-0.55	1.72	-0.13
70	0.24	0.075	0.39	0.13	0.46	-0.99	-0.25



编号: 02-00-059

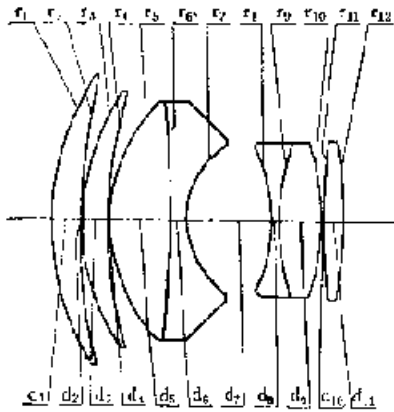
大 孔 径 高 斯 型 物 镜

E.F.L=102

B.F.L=46.03

FNo.=1.3

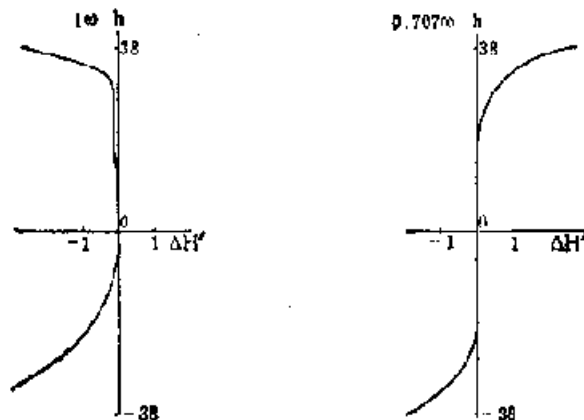
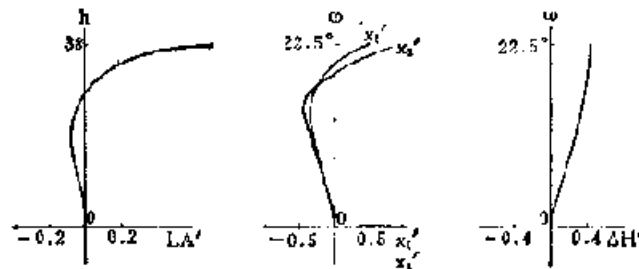
F.A.=±22.5°



序号	r	d	n _D	v	序号	r	d	n _D	v
1	83.496	8.75	1.6780	55.5	7	26.951	20.19*		
2	202.980	0.10			8	-44.198	2.35	1.54072	47.2
3	70.207	7.53	1.6910	54.2	9	81.438	12.74	1.7170	47.9
4	132.340	0.60			10	-74.430	0.10		
5	49.059	18.98	1.6393	44.9	11	263.439	6.85	1.7310	51.1
6	319.460	4.70	1.72825	28.3	12	-97.021			

20.19* = 8.00 + 12.19

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HJ	Q _P (1m)
	-0.15	0.064	-0.037	-0.46	0.95	42.05	1.02%
l 或 ω %	LA'	$\Delta H'$	x'_1	x'_2	$x'_1 - x'_2$	K'_{T1}	$K'_{T0.7}$
100	0.69	0.43	0.50	0.73	-0.23	-4.95	-0.88
70	-0.037	-0.35	-0.36	-0.41	0.05	0.25	-0.021



编号: 02-00-060

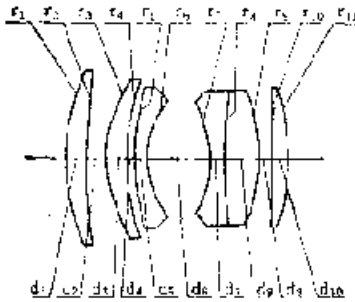
摄影物镜

E.F.L = 1

B.F.L = 0.745

FN₀ = 2

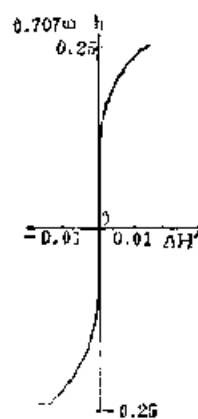
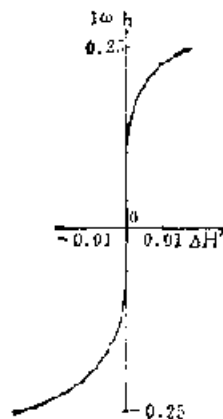
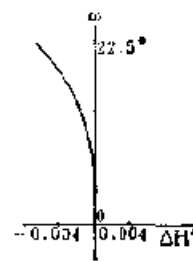
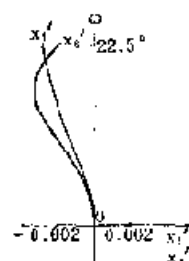
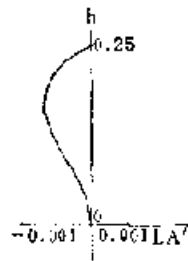
F.A. = ±22.5°*



序号	r	d	n _D	v	序号	r	d	n _D	v
1	0.8164	0.057	1.7234	150.1	7	-0.3203	0.036	1.67764	32.0
2	1.7313	0.051			8	1.5023	0.103	1.69400	54.6
3	0.4079	0.068	1.69400	54.6	9	0.5003	0.035		
4	0.7224	0.020			10	∞	0.056	1.82450	43.2
5	0.7245	0.036	1.84416	34.4	11	-0.8521			
6	0.2630	0.100*							

$$0.190^* = 0.100 + 0.090$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H1	QP(∞)
	-0.00074	0.00050026	0.00028	-0.0016	-0.0023	0.41	-1.84%
h 或 ω%	LA'	ΔH'	λ'_s	λ'_s	$\lambda'_s - \lambda'_s$	K'_{T1}	$K'_{T0.7}$
100	0.00010	-0.00267	-0.0029	-0.0021	-0.00079	-0.0067	-0.0022
70	-0.0014	-0.0020	-0.0024	-0.0036	0.0012	-0.0011	-0.00061



编号: 02-00-061

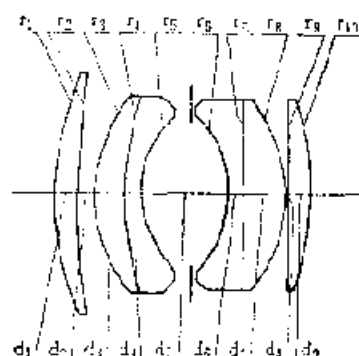
大孔径高斯型物镜

E.F.L=1

B.F.L=0.757

FN₀=1.6

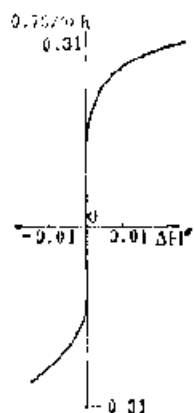
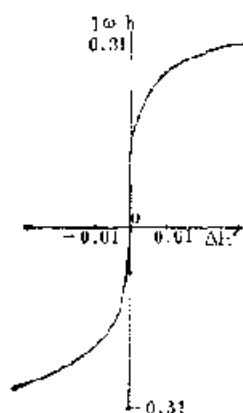
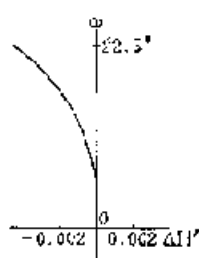
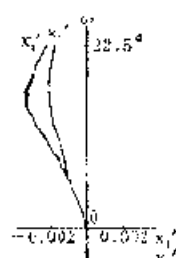
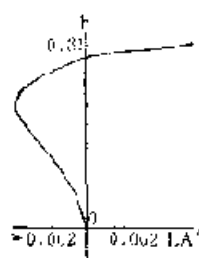
F.A.=±22.5°**



序号	r	d	n _D	v	序号	r	d	n _D	v
1	0.7874	0.0513	1.74843	50.45	5	-0.3036	0.0419	1.66880	33.09
2	1.9038	0.0419			7	∞	0.1130	1.71300	55.89
3	0.4195	0.0855	1.69160	54.80	8	-0.4185	0.001		
4	0.8206	0.0431	1.32588	36.84	9	12.5545	0.0639	1.73350	51.04
5	0.2844	0.2359*			10	-0.7805			

0.2359* = 0.1359 + 0.1000

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	ΣI	QI'(1∞)
	-0.0033	-0.000076	-0.00032	-0.0025	-0.0021	0.41	-1.17%
h 或 ω %	LA'	ΔH'	v _t '	γ _t '	κ _t ' - κ _s '	K _T '	K _f ' _{1.7}
100	0.0051	-0.0048	-0.0014	-0.0023	0.00051		-0.0053
70	0.0041	0.0015	-0.0021	-0.0030	0.0015	-0.021	-0.0019



编号: 02-00-062

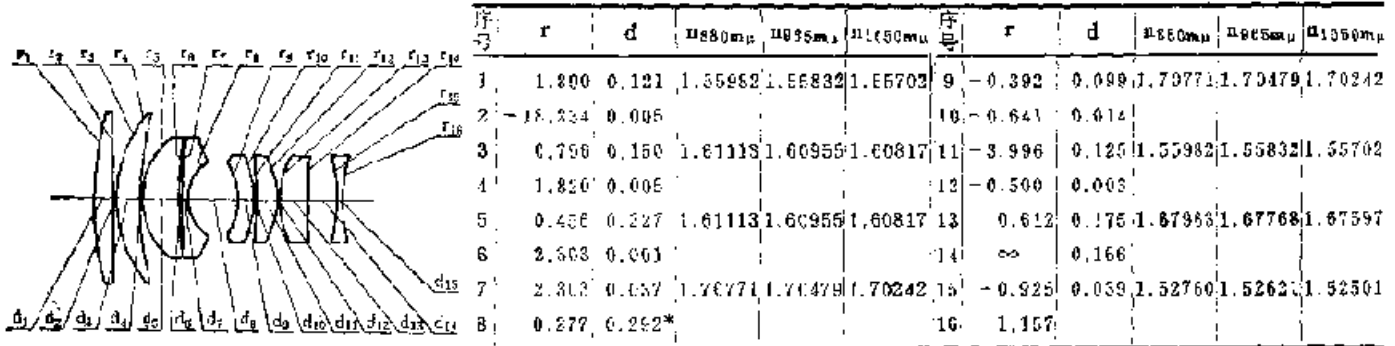
红 外 物 镜

E.F.L = 1

B.F.L = 0.054

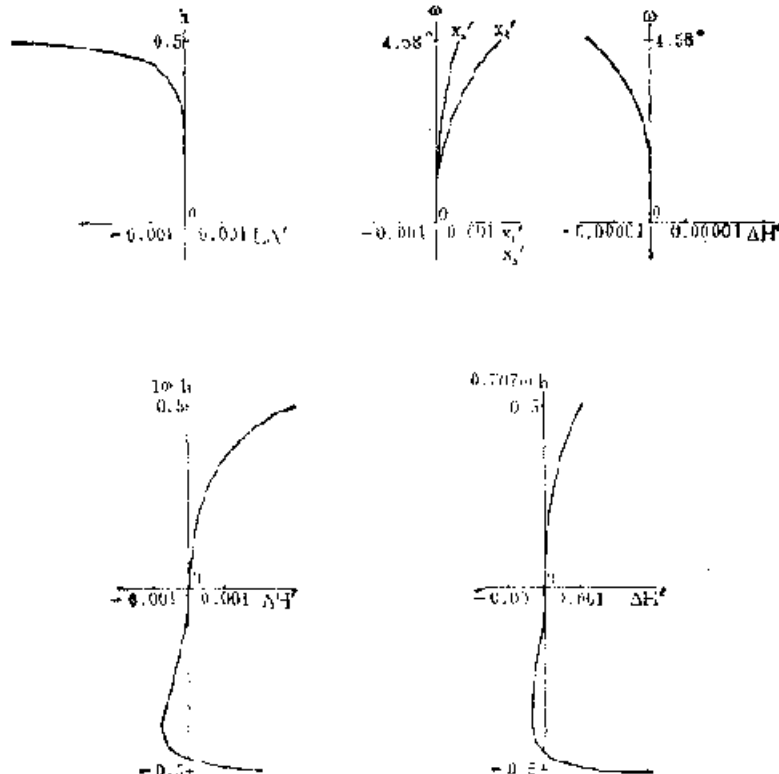
FN₀ = 1

F.A. = ± 4.58° **



0.292* = 0.150 + 0.142

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	II	QP(1 ω)
	0.00018	0.000043	0.00020	0.000056	0.000016	0.08	-0.02%
h 或 ω %	LA'	$\Delta H'$	x'_1	x'_2	x'_3 x'_4	K'_{II}	$K'_{I\omega, II}$
100	-0.0017	-0.000016	0.0017	0.00053	0.0012	0.0030	0.00013
70	-0.0015	-0.000005	0.00085	0.00025	0.00050	0.0021	0.00010



编号: 02-00-063

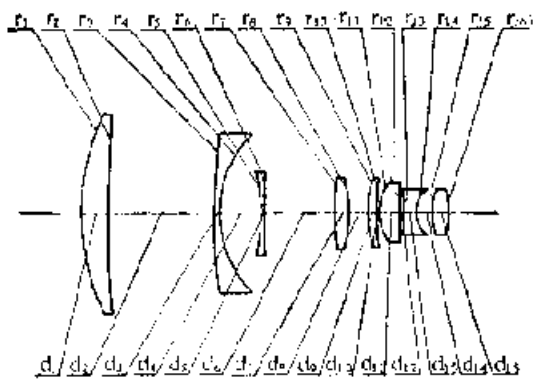
大 孔 径 物 镜

E.F.L=100

B.F.L=37.2

FN₀=1.8

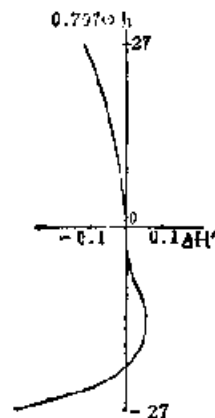
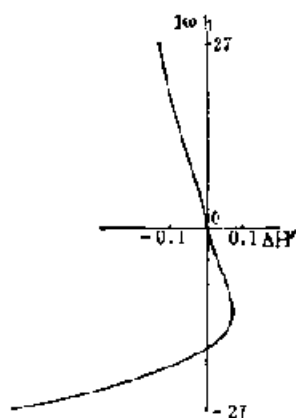
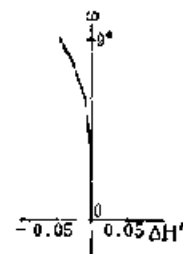
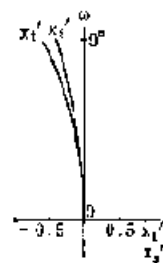
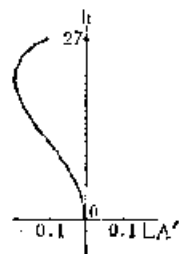
F.A.=19'33"



序号	d	n _D	v _D	序号	r	d	n _D	v _D
1	291.94	31.25	1.71915	9	91.01	11.09	1.68081	55.3
2	1621.97	131.58		10	250.05	0.50		
3	924.46	6.25	1.64648	11	57.13	28.75	1.69400	54.0
4	136.48	50.25		12	∞	0.81		
5	-173.49	6.25	1.32410	13	-424.87	16.38	1.76846	26.8
6	∞	87.01		14	32.07	20.13*		
7	587.81	12.50	1.52010	15	59.04	18.07	1.67341	46.9
8	-225.62	25.00		16	-168.78			

20.13* = 10.13 + 10

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	HI	GP(1ω)
	-0.087	0.027	-0.010	-0.064	-0.0023	16.13	-0.29%
h 或 ω %	LA'	ΔH'	x ₁ '	x ₂ '	x ₃ ' - x ₂ '	K ₁₁	K _{10.7}
100	-0.11	-0.047	-0.58	-0.44	-0.14	-0.49	-0.054
70	-0.19	-0.010	-0.29	-0.23	-0.06	-0.21	-0.012



编号: 02-00-064

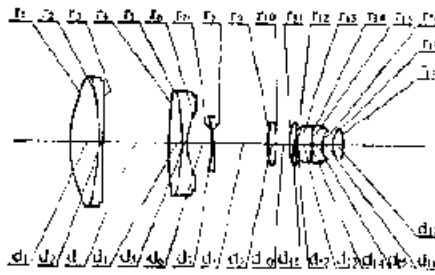
大 孔 径 物 镜

E.F.L = 100

B.F.L = 37.2

FNo. = 1.8

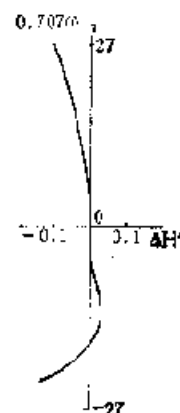
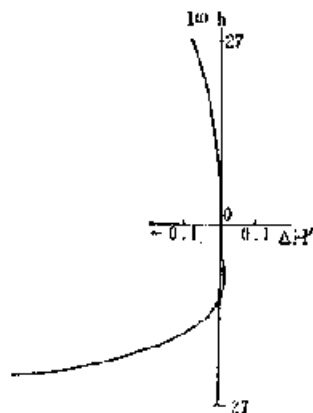
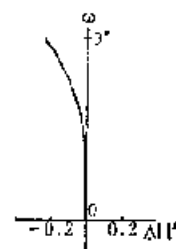
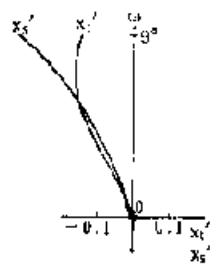
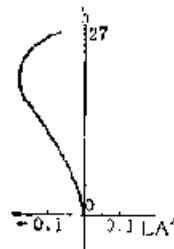
F.A. = $\pm 9^\circ$



序号	r	d	n_D	v_D	序号	r	d	n_D	v_D
1	270.37	50.01	1.6207	49.5	10	-225.62	25.00		
2	-438.45	9.38	1.76846	26.8	11	91.01	11.69	1.68081	55.3
3	15883.03	122.08			12	250.04	0.50		
4	944.50	21.88	1.76846	26.8	13	57.13	28.75	1.69400	54.6
5	-375.06	6.25	1.62287	60.1	14	∞	0.81		
6	111.99	49.88			15	-124.87	16.35	1.76846	26.8
7	-172.49	6.25	1.62410	36.1	16	32.67	20.13*		
8	∞	56.89			17	59.04	18.07	1.67341	46.9
9	587.81	12.50	1.52013	65.0	18	-168.78			

20.13* = 10.13 + 10.00

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (100)
	-0.081	0.014	-0.0047	-0.059	-0.058	16.14	-1.47%
100 或 70	11A'	$\Delta H'$	x'_1	x'_2	$x'_3 - x'_2$	K_{T1}	$K_{T0.7}$
100	-0.073	-0.25	-0.15	-0.31	0.16	-0.81	-0.12
70	-0.17	-0.068	-0.17	-0.19	0.016	-0.28	-0.036



编号: 02-00-065

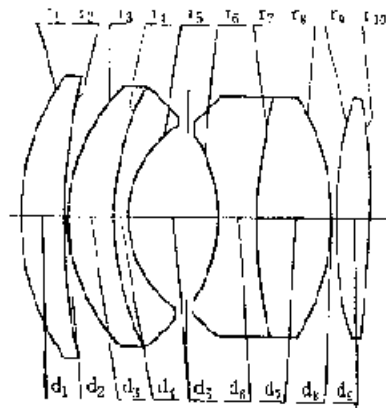
大孔径高斯型物镜

E.F.L = 1

B.F.L = 0.655

FN₀ = 1.2

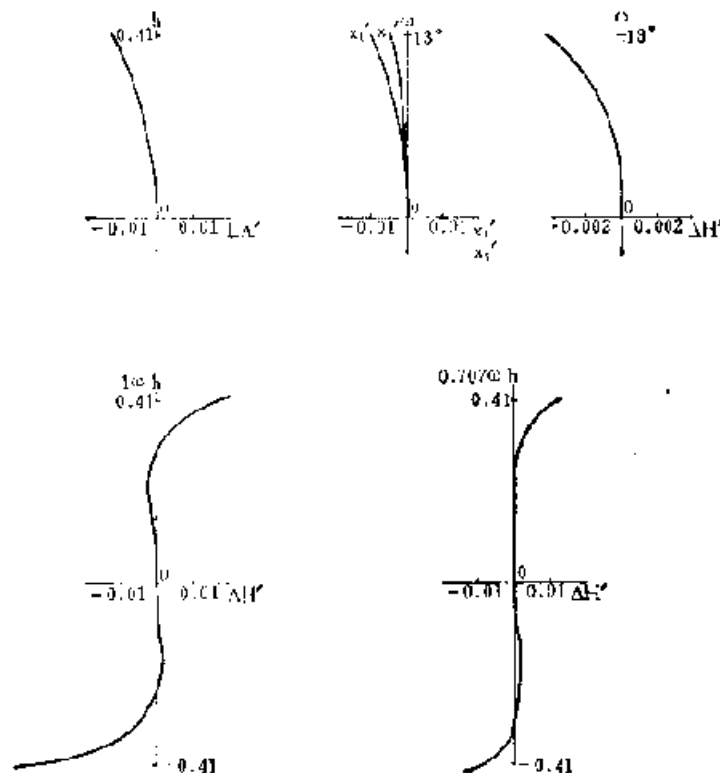
F.A. = ± 13°



序 号	r	d	n	v	序 号	r	d	n	v
1	0.587	0.126	1.758	30.5	6	-0.419	0.110	1.74	23.1
2	1.895	0.0007			7	1.431	0.213	1.734	51.0
3	0.510	0.28	1.807	50.6	8	-0.537	0.034		
4	0.760	0.007	1.609	50.1	9	1.102	0.103	1.788	47.4
5	0.300	0.256*			10	-2.143			

0.256* = 0.167 + 0.089

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	10	QP(100)
	-0.0041	0.000069	-0.00051	-0.0012	-0.0030	0.23	-1.43%
h 或 ω %	LA'	ΔH'	x ₁ '	x ₂ '	x ₁ ' - x ₂ '	K _{T1}	K _{T0.7}
100	-0.012	-0.0042	-0.0094	-0.0044	-0.0050	-0.014	-0.0018
70	-0.0053	-0.0014	-0.0044	-0.0024	-0.0020	-0.00095	-0.00020



编号: 02-00-066

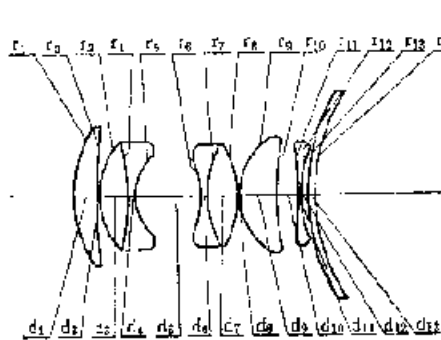
电 视 摄 影 物 镜

E.F.L = 102

B.F.L = 1.52

FNo. = 1.5

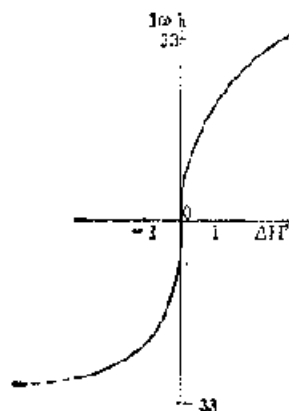
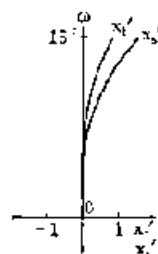
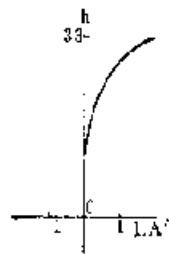
F.A. = $\pm 15^\circ$



$\frac{1}{r}$	r	d	n	v	$\frac{1}{r}$	r	d	n	v
1	73.0	12.00	1.694	54.6	8	58.9	0.30		
2	170.0	0.30			9	41.1	23.80	1.673	47.0
3	44.4	17.90	1.694	54.6	10	132.3	12.55		
4	-70.0	4.80	1.813	25.3	11	-239.9	1.8	1.813	25.3
5	30.8	30.50*			12	68.8	3.6		
6	-59.6	7.30	1.678	32.0	13	111.5	5.4	1.512	53.1
7	66.6	18.20	1.694	54.6	14	106.3			

39.50* - 20.00 + 19.50

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	h-l	QI'(100)
	0.059	-0.096	-0.021	0.17	-1.77	27.24	-14.79%
h 或 ω %	LA'	AH'	x'_t	x'_s	$x'_t - x'_s$	n'_T	$K'_{(0.7)}$
100	1.94	-4.00	0.75	1.40	-0.65	-3.34	-0.052
70	0.45	-1.21	0.28	0.54	-0.26	-1.88	-0.30



编号: 02-00-067

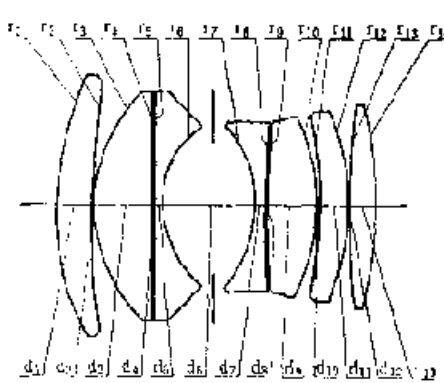
摄影物镜

E.F.L = 1

B.F.L = 0.66

FN₀ = 1.4

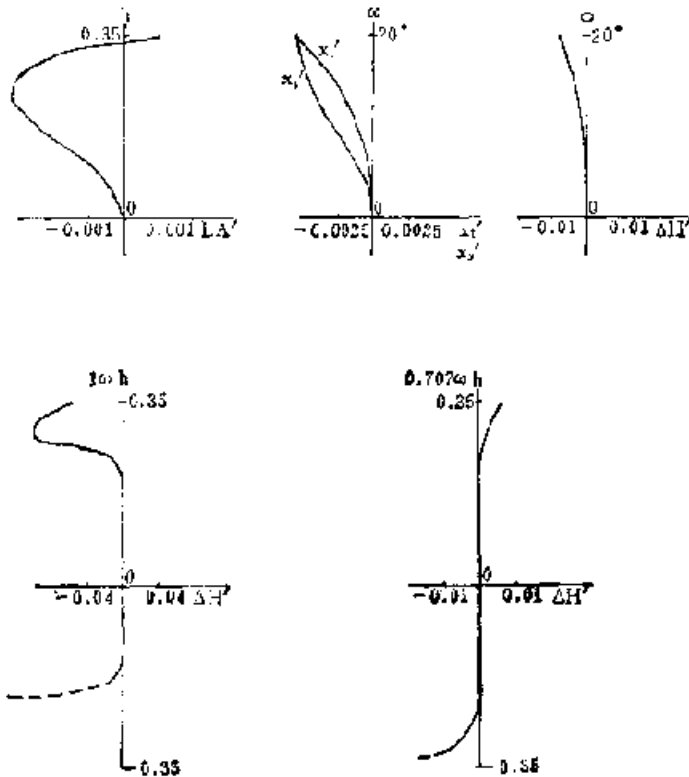
F.A. = ±20°



序号	r	d	nd	vd	序号	r	d	nd	vd
1	0.8460	0.1148	1.71700	47.90	8	3.7272	0.0000		
2	3.7160	0.0017			9	3.7272	0.1436	1.78443	43.77
3	0.4830	0.1774	1.62299	58.12	10	-0.6125	0.0017		
4	∞	0.0000			11	-1.6178	0.0345	1.78443	43.77
5	∞	0.0253	1.67501	41.31	12	-0.7766	0.0017		
6	0.3004	0.2872*			13	2.3360	0.0345	1.71700	47.90
7	-0.5622	0.0372	1.80518	25.46	14	-1.1371			

$$0.2872^* = 0.1872 + 0.1000$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(100)
	-0.0030	0.00090	0.00067	-0.0034	-0.0042	0.36	-1.92%
n 或 ω %	LA'	AI'	α'_1	Δ'_s	$\alpha'_t - \alpha'_s$	K'_{T1}	$R'_{f0.7}$
100	0.0010	-0.0070	0.0032	-0.0052	0.000037		
70	-0.0032	-0.0024	-0.0021	-0.0042	0.0021		-0.00040



编号: 02-00-068

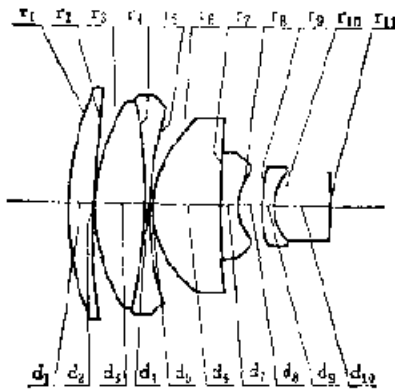
大 孔 径 摄 影 物 镜

E.F.L=100

B.F.L=6.89

$FNo. = 1$

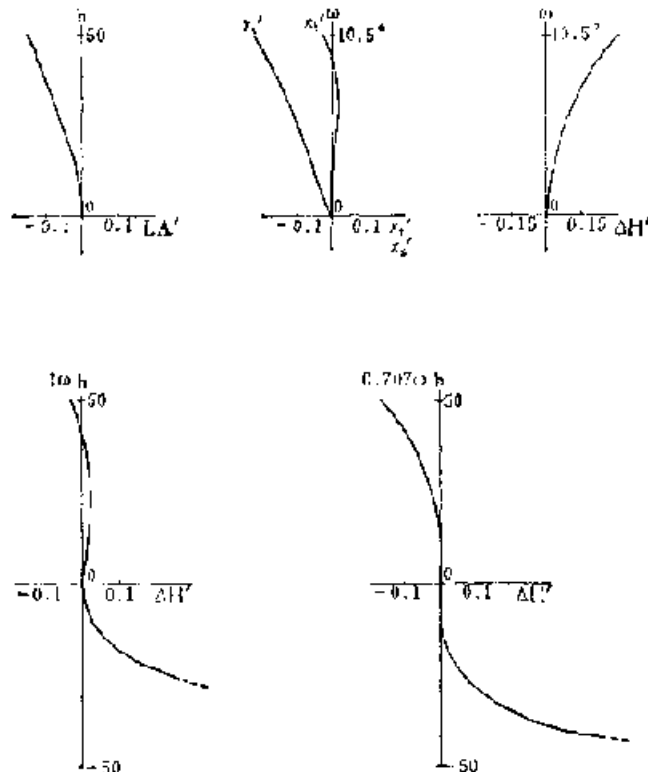
$F.A. = \pm 10.5^\circ$



序 号	r	d	n	v	序 号	r	d	n	v
1	152.6	5.4	1.6089	30.0	7	957.4	9.5	1.795	28.4
2	537.2	6.2			8	23.9	12.4*		
3	108.1	27.8	1.694	53.4	9	53.0	6.4	1.602	60.7
4	-259.1	5.4	1.728	22.7	10	26.7	31.4	1.788	50.5
5	179.2	6.8			11	-338.3			
6	56.1	37.5	1.691	54.8					

$12.4^* = 8.0 + 4.4$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF(10)
	-0.13	-0.060	0.10	-0.28	0.50	13.17	1.66%
h 或 ω %	LA'	$\Delta H'$	x'_1	x'_2	$x'_1 - x'_2$	K'_{f1}	$K'_{f0.7}$
100	0.15	0.00	0.026	0.22	0.194	3.05	0.42
70	-0.13	0.15	0.015	-0.15	0.165	0.44	0.077



编号: 02-00-069

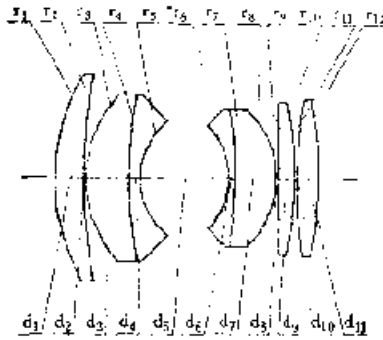
改进的高斯型物镜

E.F.L = 1

B.F.L = 0.575

FN₀ = 1.4

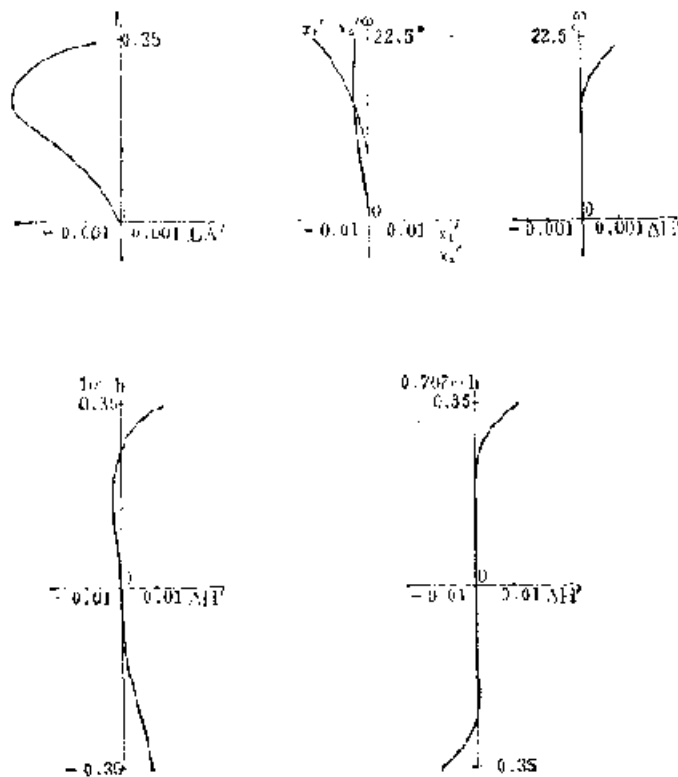
F.A. = ±22.5°**



$\frac{1}{10^3}$	r	d	n_d	v	$\frac{1}{10^3}$	r	d	n_d	v
1	0.7261	0.3141	1.65103	58.60	7	-2.5000	0.1530	1.69680	55.61
2	2.2321	0.6020			8	-0.3691	0.0020		
3	0.4391	0.1031	1.69680	55.61	9	20.0000	0.0650	1.60350	53.51
4	2.5000	0.0330	1.60545	38.03	10	-1.5104	0.0020		
5	0.2733	0.3376*			11	2.2805	0.0750	1.69350	53.51
6	-0.2785	0.0220	1.70035	30.28	12	-1.6535		1	

$$0.3510^* = 0.1700 + 0.1615$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP(1%)
	-0.0028	0.00013	0.00041	0.0031	0.000046	0.41	0.29%
校正量	LA'	$\Delta H'$	x'_1	x'_2	x'_3, x'_4	K'_{f1}	$K'_{F0.7}$
1.00	-0.00074	0.0012	-0.015	-0.00407	-0.011	0.010	0.0026
7.0	-0.0011	0.000060	-0.0049	-0.00405	0.00085	0.0011	0.00072



编号: 02-00-070

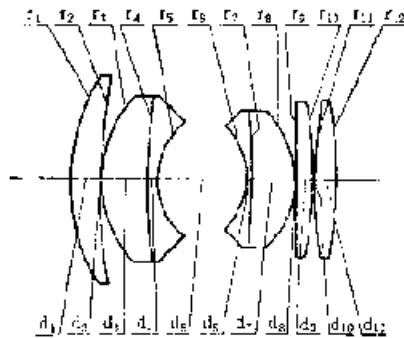
改进的高斯型物镜

E.F.L = 1

B.F.L = 0.562

FN₀ = 1.4

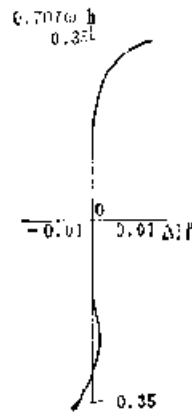
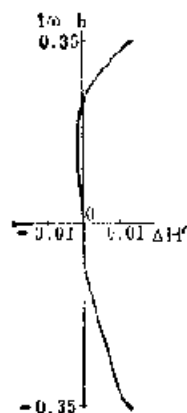
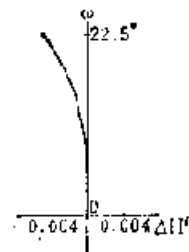
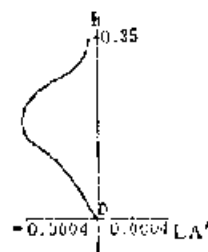
F.A. = ±22.5°**



序号	r	d	n _d	v	序号	r	d	n _d	v
1	0.7354	0.1320	1.65672	58.65	7	-6.2246	0.1454	1.69109	54.66
2	2.2884	0.3020			8	-0.3658	0.0341		
3	0.4508	0.1654	1.69109	54.66	9	7.4289	0.0661	1.50109	54.66
4	3.2679	0.0341	1.60936	33.70	10	-2.0712	0.0029		
5	0.2602	0.3362*			11	1.6893	0.0853	1.69109	54.66
6	-0.2813	0.0322	1.70659	33.27	12	-2.0400			

$$0.3362^* = 0.1700 + 0.1662$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.0012	0.00043	0.00037	-0.0033	-0.0030	0.41	-1.15%
h 或 ω %	LA'	ΔH'	x ₁ '	x ₂ '	x ₂ ' - x ₁ '	K _{T1}	K _{T1.7}
100	-0.00074	-0.0047	-0.014	-0.0054	-0.009	0.013	0.0037
70	-0.00074	0.0017	-0.0049	-0.0045	-0.00039	0.0058	0.0017



编号: 02-00-071

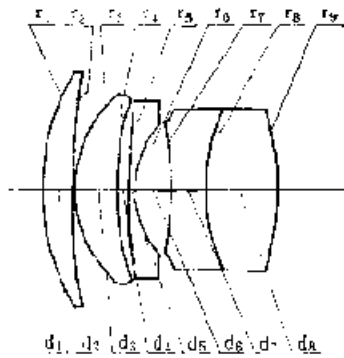
四组元大孔径摄影和电影摄影物镜

E.F.L=100

B.F.L=55.04

FN₀=2

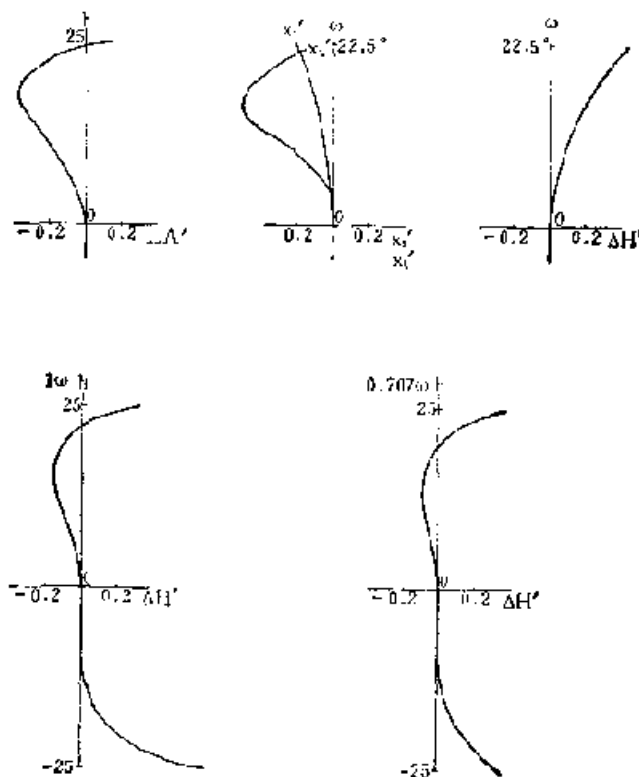
F.A.=±22.5°



序 号	r	d	n _e	v _e	γ 号	i	d	n _e	v _e
1	65.83	8.6	1.60100	54.8	6	23.85	9.6*		
2	200.00	0.2			7	-505.40	10.0	1.50048	66.0
3	35.99	12.0	1.09100	54.8	8	47.06	20.0	1.71360	53.9
4	87.46	3.0			9	-100.00			
5	103.99	2.0	1.72830	58.7					

9.6* 5.0+4.6

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	HT	QP (100)
	-0.16	-0.057	0.061	-0.26	0.21	41.12	1.07%
h 或 ω %	LA'	ΔH'	α ₁ '	α ₂ '	α ₁ ' - α ₂ '	K _{1.1}	K _{T0.7}
100	0.12	0.44	0.23	0.17	0.058	0.50	0.030
70	-0.37	0.21	-0.13	-0.54	0.41	0.35	0.0025



编号: 02-00-072

八片式高斯物镜

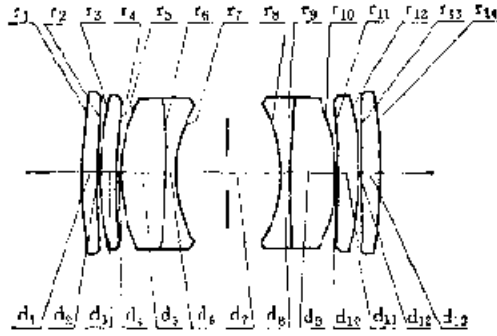
E.F.L=100

B.F.L=48.40

FN₀=2.5

F.A.=+10°**

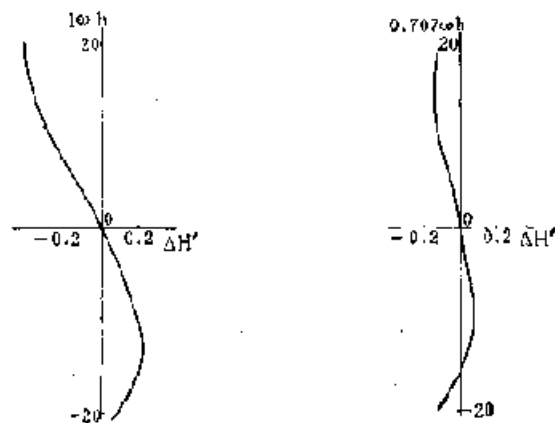
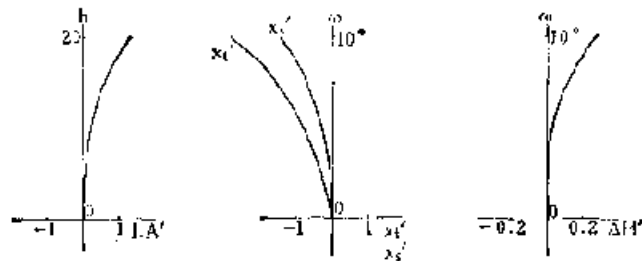
$l_1 = -\infty$



片号	r	d	n	v	片号	r	d	n	v
1	155.0	4.65	1.604	54.5	8	-35.6	2.25	1.704	34.7
2	6220.0	0.15			9	279.5	12.50	1.625	52.9
3	92.4	5.60	1.604	54.5	10	-45.7	0.15		
4	339.0	0.15			11	-339.0	5.60	1.694	54.5
5	46.7	2.60	1.625	52.9	12	-92.4	0.15		
6	-279.5	2.25	1.704	34.7	13	-6220.0	4.65	1.604	54.5
7	35.6	29.80*			14	-155.0			

29.85* = 14.03 + 14.93

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP(100)
	0.082	0.321	0.015	-0.060	0.10	17.19	1.63%
h 或 $\omega\%$	LA'	$\Delta H'$	x'_t	x'_s	$x'_t - x'_s$	K'_{f1}	$K'_{f0.7}$
100	1.26	0.28	-2.53	-1.37	-1.16	-0.17	-0.076
70	0.57	0.164	-1.30	-0.68	-0.62	-0.12	-0.057



编号: 02-00-073

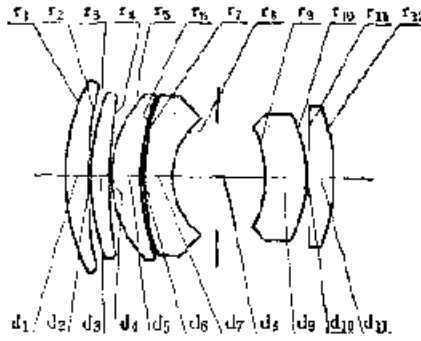
改进的高斯型摄影物镜

E.F.L=1

B.F.L=0.4473

FNo.=2

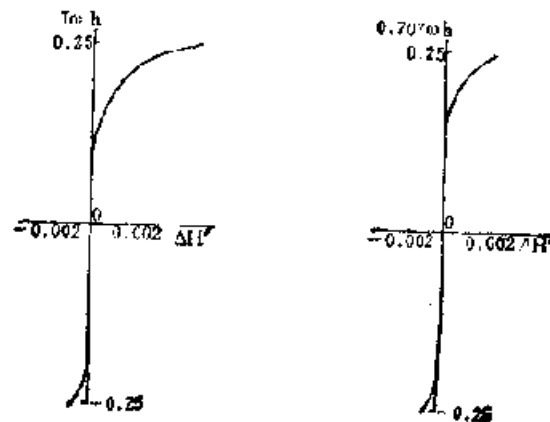
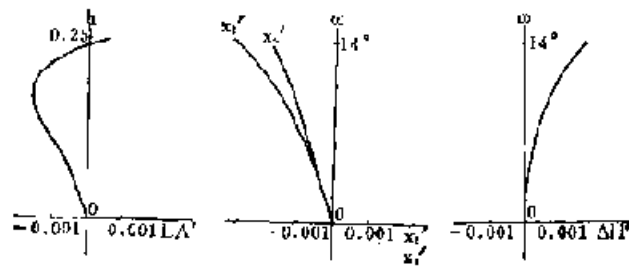
F.A.=±14°



序号	r	d	n_e	v_e	序号	r	d	n_e	v_e
1	0.61825	0.05712	1.62287	60.06	7	0.62712	0.07734	1.70444	29.84
2	1.22168	0.00118			8	0.19409	0.25223*		
3	0.62269	0.03355	1.62287	60.06	9	-0.27813	0.10650	1.81262	25.23
4	1.12335	0.00119			10	-0.41918	0.00050		
5	0.30538	0.09043	1.62287	60.06	11	2.94622	0.06188	1.62287	60.06
6	0.66435	0.00119			12	-0.52012			

$$0.25223^* = 0.08000 + 0.17226$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1%)
	-0.00077	-0.00012	0.000063	-0.00041	0.0010	0.24	0.72%
h 或 ω %	LA'	ΔH'	x_1'	x_2'	$x_1' - x_2'$	K_1'	$K_{10.7}'$
100	0.00040	0.0017	-0.0029	0.0019	0.0010	0.0025	0.00045
70	-0.0016	0.00070	-0.0015	-0.0013	-0.00018	0.00093	0.00011



编号: 02-00-074

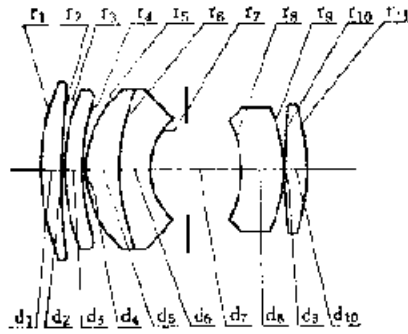
改进的高斯型摄影物镜

E.F.L=1

B.F.L=0.4448

FN₀=2

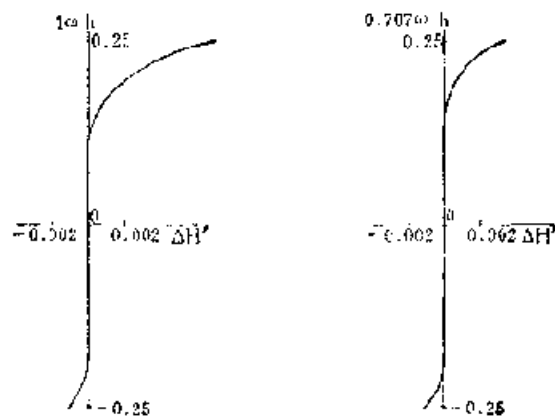
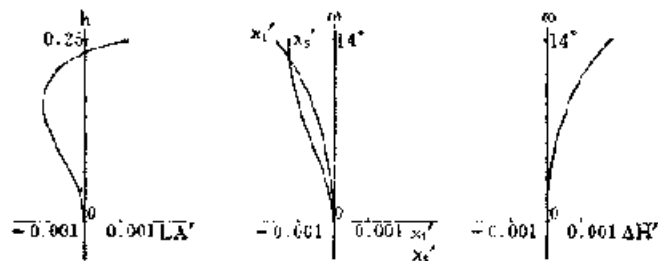
F.A.=±14°



序号	r	d	n _d	v	序号	r	d	n _d	v
1	0.63752	0.05682	1.62287	60.06	7	0.18447	0.25272*		
2	2.10488	0.09118			8	-0.28519	0.11009	1.81262	25.28
3	0.66383	0.05327	1.62287	60.06	9	-0.44156	0.00059		
4	0.87146	0.00116			10	2.35019	0.05082	1.62287	60.06
5	0.29347	0.09733	1.62287	60.06	11	-0.54814			
6	0.63752	0.07812	1.70414	29.84					

$$0.25272^* = 0.08000 + 0.17272$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HT	QP (%)
	-0.00060	-0.00012	0.000074	-0.00012	0.00013	0.24	0.72%
h 或 ω %	$\Delta L'$	$\Delta H'$	$\Delta x'_1$	$\Delta x'_5$	$\Delta x'_6 - \Delta x'_8$	K_{T1}^2	$h'_{T0.7}$
100	0.0011	0.0017	-0.0016	-0.0013	-0.00023	0.0029	0.00055
70	-0.0011	0.00074	-0.00077	-0.0010	0.00033	0.0011	0.00015



编号: 02-00-075

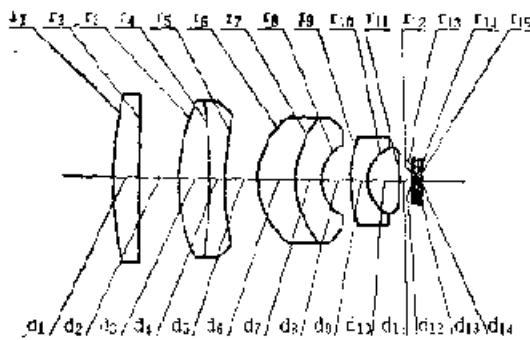
四组元大孔径物镜

E.F.L=1

B.F.L=0

FNo.=1.1

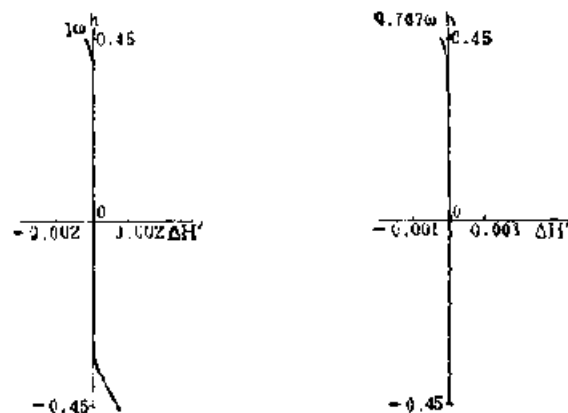
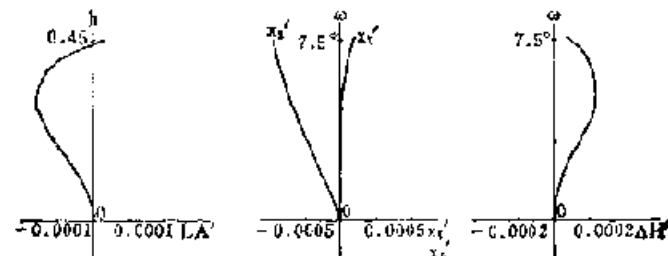
F.A.= $\pm 7.5^\circ$



序号	r	d	n	v	序号	r	d	n	v
1	2.0800	0.14200	1.721	47.7	9	0.6210	0.08200	1.592	52.9
2	23.6000	0.21000			10	0.2035	0.17000	1.752	50.2
3	0.9876	0.18200	1.721	47.7	11	11.32	0.07580		
4	-2.0000	0.07800	1.813	25.3	12	∞	0.02800	1.516	64.1
5	1.7710	0.17800			13	∞	0.00556		
6	0.4350	0.19400	1.694	54.6	14	∞	0.01500	1.516	64.1
7	0.5410	0.14200	1.768	26.8	15	∞			
8	0.2200	0.18000*							

$$0.18000^* = 0.07500 + 0.07500$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HT	QF (1m)
	-0.00025	-0.000043	0.00031	-0.0010	0.0010	0.13	0.048%
h 或 ω %	LA'	$\Delta H'$	x'_1	x'_2	$x'_3 - x'_4$	K'_{T1}	$K'_{T1.7}$
100	0.000015	0.000063	0.00016	-0.00095	0.0011	0.00069	-0.000050
70	-0.00016	0.00024	0.00069	-0.00071	0.00078	-0.000013	-0.000046



编号: 02-00-076

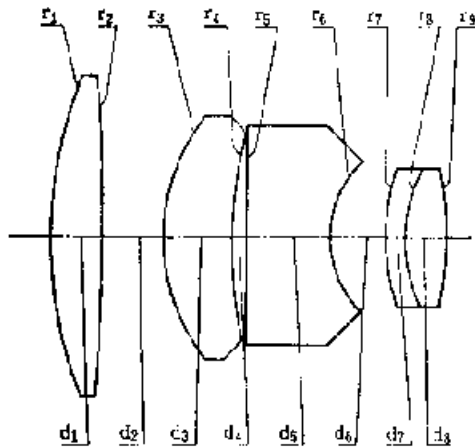
摄影物镜

E.F.L=100

B.F.L=35.54

FNo.=1.3

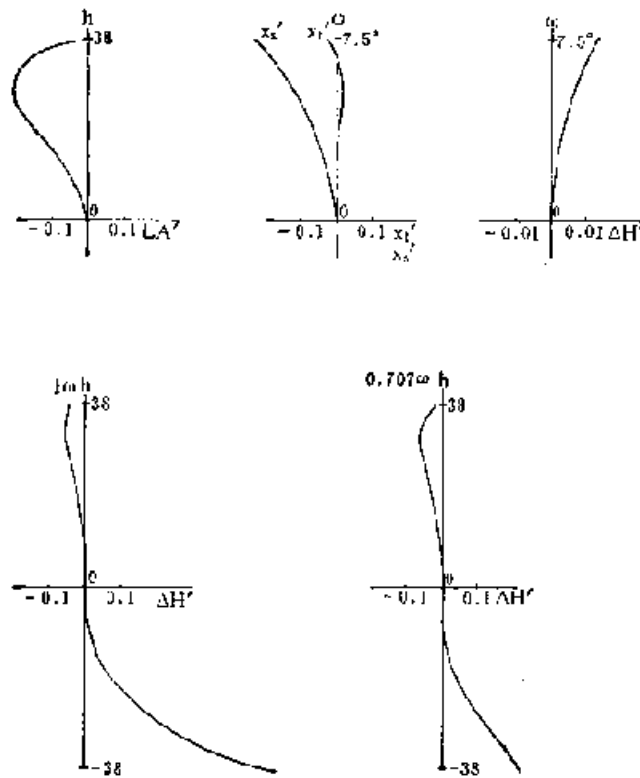
F.A.= $\pm 7.5^{\circ}$ **



序号	r	d	n_d	v_d	序号	r	d	n_d	v_d
1	124.34	12.91	1.5229	63.1	6	31.33	15.30*		
2	-756.07	16.74			7	94.55	4.78	1.5198	51.9
3	50.45	20.80	1.5229	60.1	8	11.06	11.95	1.7919	47.2
4	141.80	3.11			9	-92.20			
5	∞	23.91	1.7918	25.9					

$$15.30^* = 7.00 + 8.30$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HU	OP (%)
	-0.19	0.011	0.044	-0.12	0.019	13.06	0.16%
h 或 ω %	LA'	$\Delta H'$	x'_s	λ'_s	$\lambda'_T - \lambda'_s$	K_{T1}^h	$K_{T0.7}^h$
100	0.0013	0.015	-0.026	-0.23	0.20	0.24	0.077
70	-0.21	0.0072	0.0070	-0.13	0.13	0.097	0.033



编号: 02-00-077

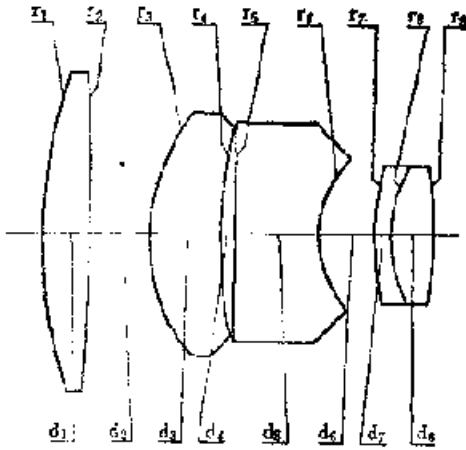
摄影物镜

E.F.L=100

B.F.L=35.30

FNo.=1.2

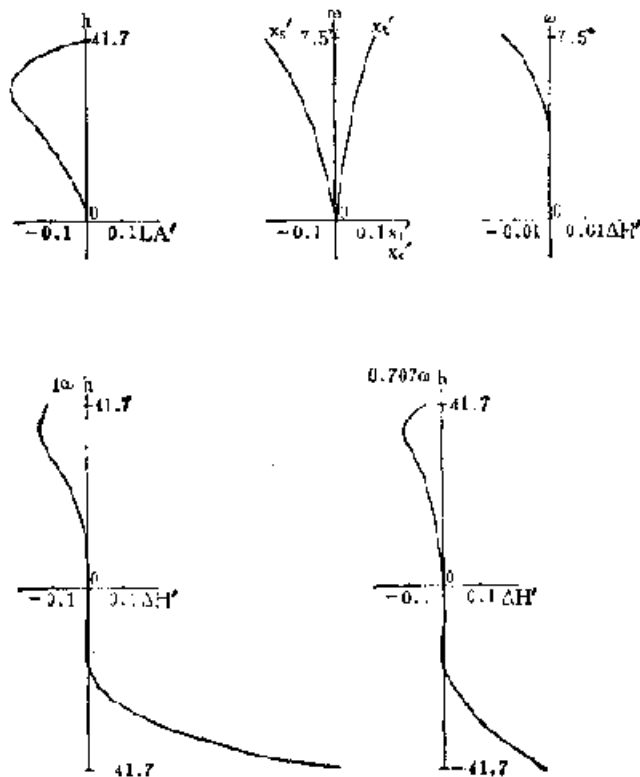
F.A.= $\pm 7.5^{\circ}$ **



序号	r	d	n_d	v_d	序号	r	d	n_d	v_d
1	150.76	13.47	1.6998	55.4	6	32.68	15.97*		
2	-1226.05	17.47			7	84.83	4.99	1.5198	51.9
3	53.74	21.71	1.6543	58.3	8	42.89	12.43	1.7919	47.2
4	140.32	3.24			9	-93.01			
5	∞	24.95	1.7918	25.9					

$$15.97^* = 7.00 + 8.97$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	Hl	QP (1%)
	-0.22	0.030	0.069	-0.15	0.0010	13.07	-0.10%
h 或 ω %	LA'	$\Delta H'$	x_1'	x_4'	x_1'' x_5''	K_{F1}'	K_{F2}'
100	0.01	-0.013	0.10	-0.20	0.30	0.29	0.633
70	-0.21	-0.0019	0.065	-0.11	0.17	0.11	0.0021



编号: 02-00-078

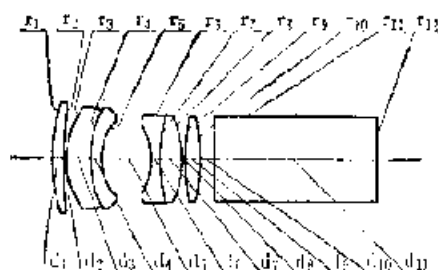
用于彩色摄影的附加物镜

E.F.L = 100

B.F.L = 13.91

FN₀ = 1.8

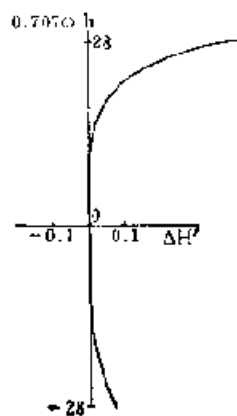
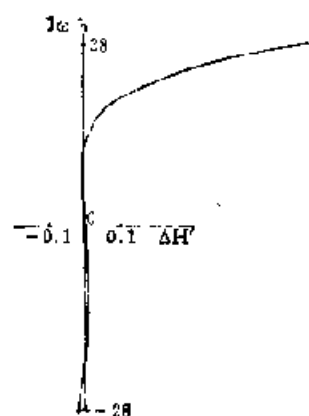
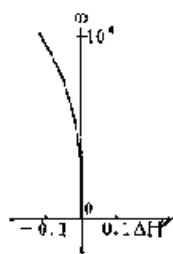
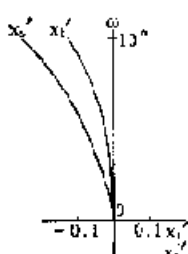
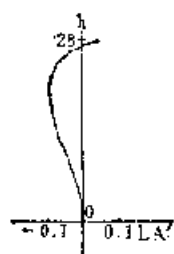
F.A. = ±10°



序号	r	d	n _d	v _d	序号	r	d	n _d	v _d
1	94.10	7.10	1.780	37.6	7	180.80	12.15	1.716	53.7
2	323.00	0.30			8	-49.30	0.30		
3	49.30	12.15	1.694	54.5	9	225.20	8.45	1.732	54.5
4	60.35	5.20	1.652	33.6	10	-102.50	6.90		
5	31.55	27.20*			11	∞	91.20	1.694	54.5
6	-37.45	5.30	1.672	32.0	12	∞			

27.20* = 13.60 + 13.60

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	Hl	QP (10)
	-0.057	-0.0922	0.012	-0.055	-0.063	17.19	-0.68%
h 或 10%	LA'	ΔH'	x ₁ '	x ₂ '	x ₁ ' - x ₂ '	K _{T1}	K _{T0.7}
100	0.022	-0.11	-0.12	-0.25	0.13	0.30	0.038
70	-0.10	-0.041	-0.054	-0.132	0.078	0.25	0.037



编号, 02-00-079

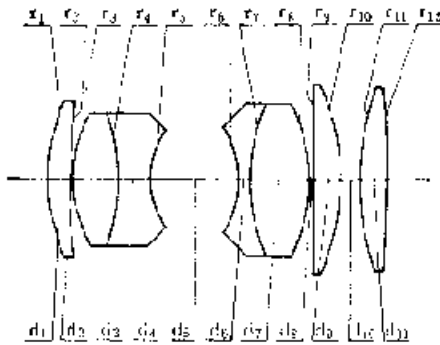
远 焦 点 物 镜

E.F.L=1

B.F.L=0.424

FN₀. = 2

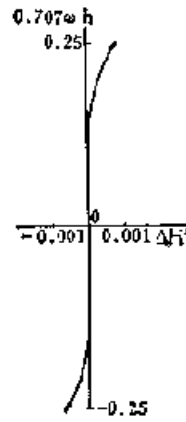
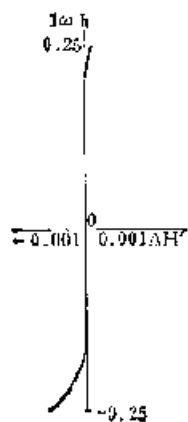
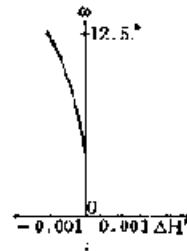
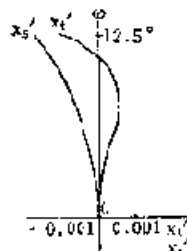
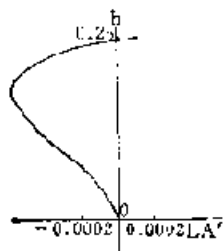
F.A. = $\pm 12.5^{\circ}$ **



序 号	r	d	n _d	v	序 号	r	d	n _d	v
1	0.0462	0.0867	1.691	54.8	7	0.7178	0.2070	1.651	54.8
2	2.5642	0.0010			8	-0.5335	0.0010		
3	0.4829	0.1510	1.691	54.8	9	-7.1736	0.0900	1.651	54.8
4	-0.6083	0.1068	1.700	41.2	10	-3.7853	0.0690		
5	0.2576	0.3124*			11	0.9960	0.0930	1.651	54.8
6	-0.2992	0.0400	1.648	33.8	12	-3.3146			

$$0.3124^* = 0.0500 + 0.2624$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	IH	QT (%)
	-0.00027	0.000013	0.00023	-0.00043	-0.00043	0.21	-0.45%
h 或 ω %	$\Delta A'$	$\Delta H'$	λ'_e	λ'_i	$\lambda'_e - \lambda'_i$	K_{T1}	$K_{T0.7}$
100	0.00011	-0.00010	-0.0012	-0.0018	0.00070	-0.00047	-0.00014
70	-0.00059	-0.00034	0.00056	-0.0008	0.00136	0.000029	0.000035

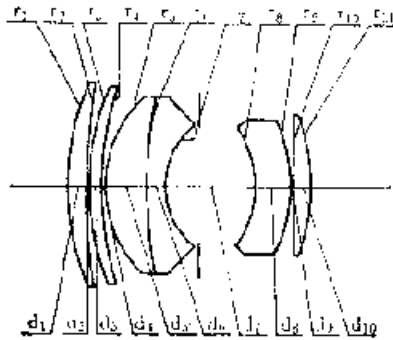


改进的高斯型摄影物镜

E.F.L=1

B.F.L=0.5345

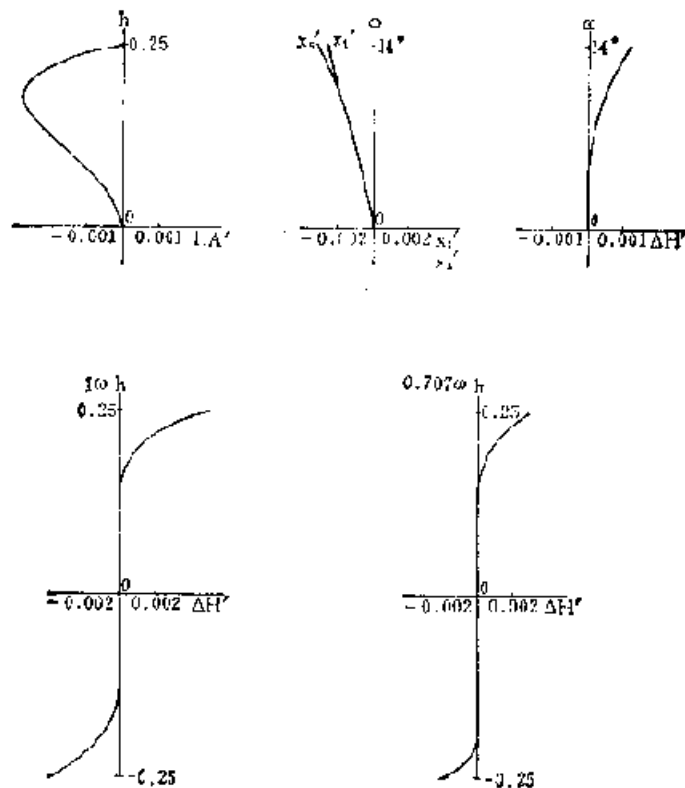
FNo.=2

F.A.= $\pm 14^\circ$ 

序号	r	d	n _d	v _d	序号	r	d	n _d	v _d
1	0.55502	0.05508	1.60300	54.80	7	0.21352	0.23553*		
2	0.96975	0.00059			8	-0.30375	0.08036	1.72825	28.34
3	0.57639	0.04616	1.69100	54.80	9	-0.47801	0.00059		
4	0.80828	0.00059			10	10.70055	0.06155	1.60100	54.80
5	0.34086	0.10770	1.69100	54.80	11	-0.52462			
6	1.90298	0.03847	1.66680	32.00					

$$0.23553^* = 0.13000 + 0.13553$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1 ω)
	-0.0012	-0.00011	-0.000015	-0.00003	0.00071	0.24	0.4655
h 或 ω %	I.A'	$\Delta H'$	x'	x'_s	$x'_1 - x'_s$	K'_{11}	$K'_{10.7}$
100	0	0.0011	-0.00125	-0.0028	0.00027	0.00067	0.00012
70	0.0026	0.00040	0.0018	-0.0012	0.0000	-0.000024	-0.000081



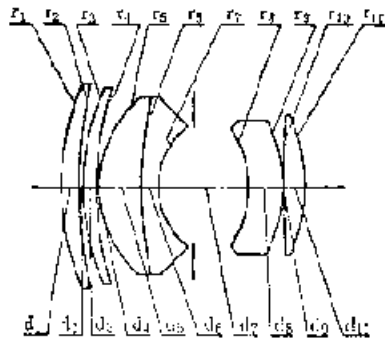
改进的高斯型摄影物镜

E.F.L=1

B.F.L=0.4934

FNo.=2

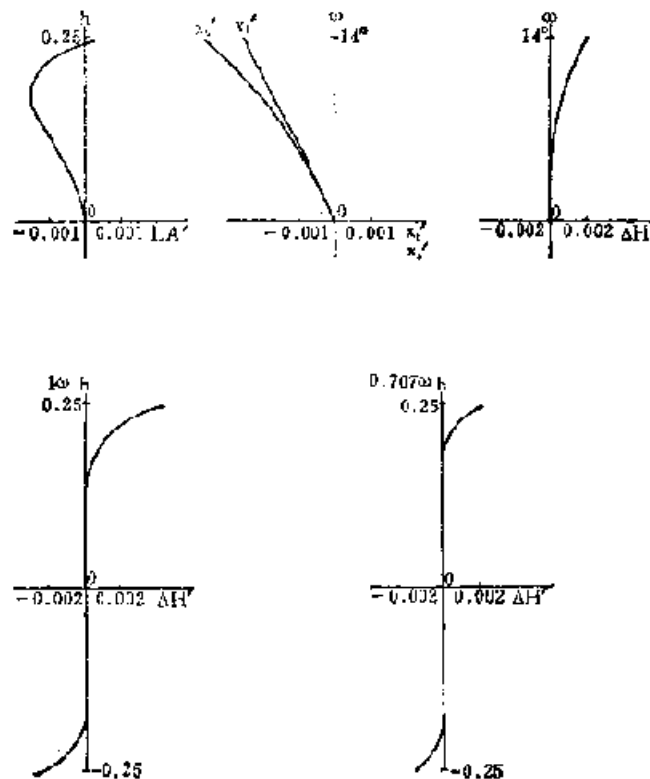
F.A.=14°



序号	r	d	nd	vd	序号	r	d	nd	vd
1	0.74046	0.05378	1.62041	60.29	7	0.21479	0.23122*		
2	1.70593	0.00119			8	-0.51907	0.10120	1.78472	25.51
3	0.68906	0.04167	1.62041	60.29	9	-0.45729	0.00000		
4	1.07103	0.00119			10	3.16788	0.05715	1.62041	60.29
5	0.32074	0.11906	1.69130	54.80	11	-0.66101			
6	1.27493	0.05001	1.66036	32.85					

$$0.23122^* = 0.13000 + 0.10122$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	FI	QP(1%)
	-0.00070	-0.00015	0.00046	-0.00070	0.0011	0.24	0.84%
h 或 ω %	LA'	$\Delta H'$	Δ_1'	κ_1'	$\kappa_1' - \kappa_2'$	κ_{F1}'	$\kappa_{F0.7}'$
100	0.60025	0.0020	0.0025	-0.0036	0.0011	0.00088	0.000073
70	-0.0015	0.00078	-0.0008	-0.0022	0.00045	0.00016	-0.000073



编号: 02-00 082

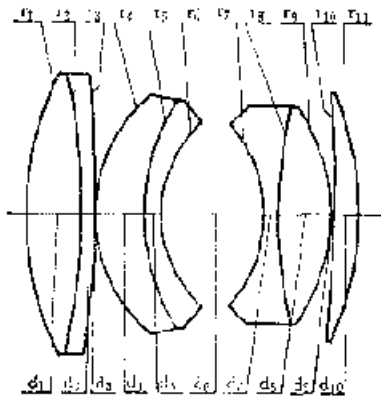
摄影物镜

E.F.L=1

B.F.L=0.684

FN₀ = 2

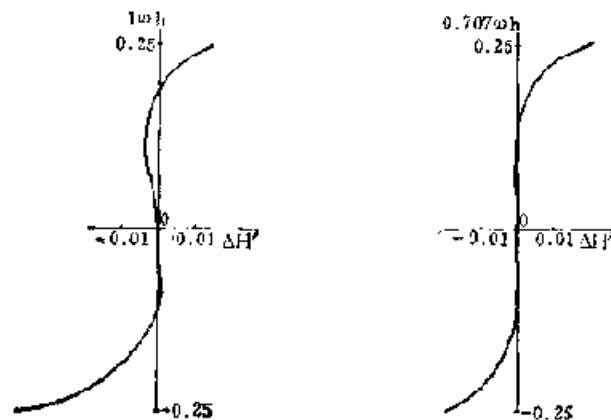
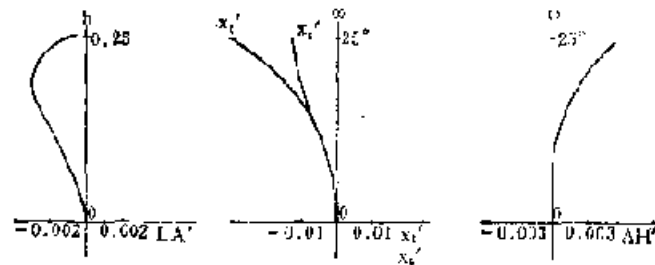
F.A. = ±25°



序号	r	d	n _D	v	序号	r	d	n _D	v
1	0.6886	0.108	1.5338	55.4	7	-0.2823	0.030	1.5673	22.8
2	1.2296	0.030	1.6727	32.2	8	0.8853	0.108	1.6204	60.3
3	-9.5650	0.002			9	-0.3727	0.602		
4	0.3325	0.098	1.6700	47.2	10	-19.5650	0.049	1.6074	53.7
5	0.4623	0.030	1.6645	35.9	11	-0.6709			
6	0.2351	0.207*							

$$0.207^* = 0.091 + 0.116$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP (1%)
	-0.0012	-0.003043	0.00039	-0.0021	0.0020	1.46	1.11%
h 或 ω%	LA'	ΔHP	Δ ₁ '	Δ ₂ '	Δ ₃ '	K _{F1}	K _{F1.7}
100	-0.00073	0.0052	-0.031	-0.013	-0.018	-0.010	-0.0044
70	-0.0030	0.0016	-0.01	-0.0055	-0.0015	0.0010	-0.00067



编号: 02-00-083

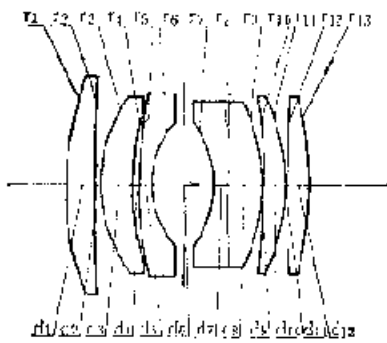
摄影物镜

E.F.L-1

B.F.L-0.734

FN₀ = 1.4

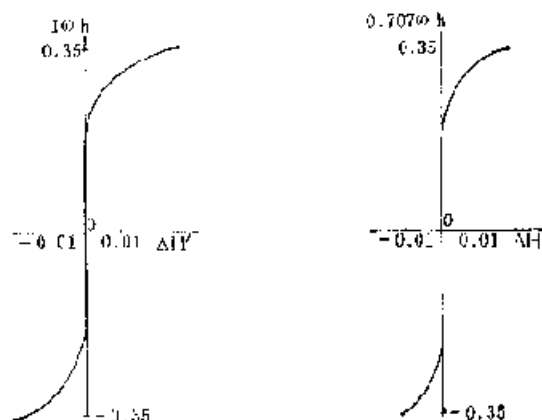
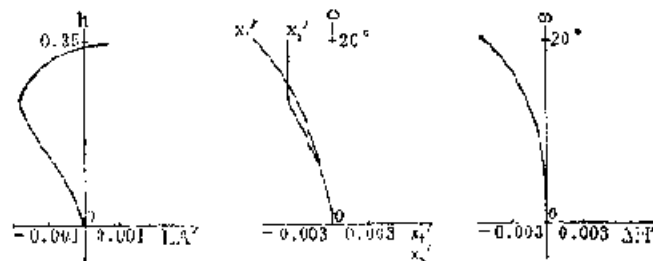
F.A. = ±20°



序号	r	d	n _d	v _d	序号	r	d	n _d	v _d
1	1.1331	0.1048	1.81500	45.2	8	4.9204	0.1237	1.80040	42.7
2	12.0000	0.6113			9	-0.7193	0.0019		
3	0.5136	0.1312	1.69400	54.6	10	-2.5179	0.0810	1.80040	42.7
4	1.0375	0.0160			11	-0.7526	0.0019		
5	1.6920	0.0451	1.63003	35.4	12	3.9826	0.0810	1.71615	55.7
6	0.3479	0.2286*			13	-1.2605			
7	-0.3895	0.0571	1.79180	25.9					

$$0.2286^* = 0.1100 + 0.1186$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	GP(100)
	-0.0019	0.000685	0.00037	-0.0029	-0.0037	0.36	-1.57%
h 或 ω %	LA'	AH'	x ₁ '	x ₂ '	x ₁ ' - x ₂ '	K _{T1}	K _{T0.7}
100	0.00054	-0.0057	-0.0005	-0.0039	0.0020	0.0039	0.00049
70	-0.0018	-0.0020	-0.0034	-0.0038	0.00047	0.0023	0.00048



编号: 02-00-084

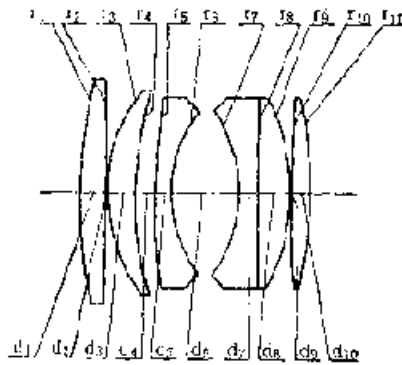
应用高折射率玻璃的摄影物镜

E.F.L = 100

B.F.L = 71.48

FN₀ = 1.7

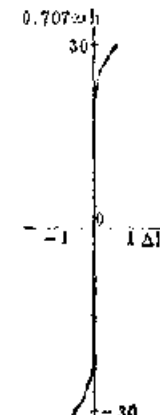
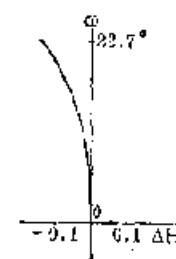
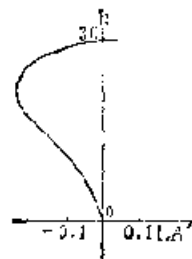
F.A. = ± 22.7°



序号	r	d	n	v	序号	r	d	n	v
1	150.28	6.00	1.81600	16.8	7	-38.37	4.82	1.86680	33.1
2	-6328.00	0.15			8	728.12	9.0	1.3600	6.8
3	44.80	0.95	1.81000	16.8	9	-52.83	0.19		
4	94.95	5.17			10	480.21	5.53	1.8600	16.8
5	205.55	4.70	1.72825	28.3	11	-109.11			
6	34.85	18.98*							

18.98* = 9.98 + 9.00

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H'	QI' (Jω)
	-0.15	-0.046	0.021	-0.22	-3.025	40.97	-0.3536
h 或 ω %	L.A'	Δt'	x _t '	x _s '	x _t ' - x _s '	K _t '	K _{s0.7} '
100	0.025	-0.14	-0.070	0.350	-0.430	-0.10	0.013
70	0.24	0.046	-0.260	-0.268	0.0080	0.0077	-0.020



编号: 02-00-085

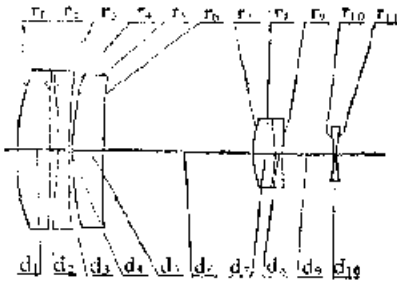
珀 兹 伐 型 物 镜

E.F.L=100

B.F.L=5.48

FNo.=1.7

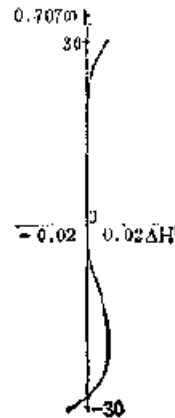
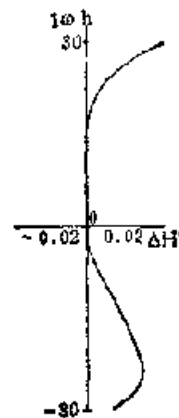
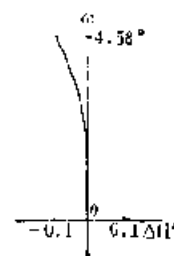
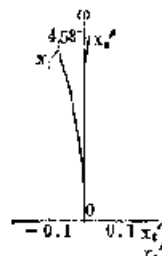
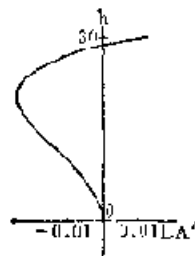
F.A.= $\pm 4.58^{\circ}$ **



序号	r	d	n_g	v_g	序号	r	d	n_g	v_g
1	100.20	13.40	1.605	60.4	7	35.65	10.30	1.625	56.6
2	4070.00	4.26			8	-57.70	2.71	1.702	38.3
3	-166.20	4.57	1.792	25.9	9	201.50	21.80		
4	496.50	1.30			10	-72.24	1.55	1.813	25.2
5	112.00	13.70	1.625	56.6	11	64.70			
6	3196.00	80.50*							

80.50* = 40.00 + 40.50

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP(100)
	-0.017	-0.00022	0.0073	0.0056	-0.051	s	-1.12%
h 或 ω %	LA'	$\Delta H'$	x_t	x'_t	x'_t x'_t	K'_t	$K'_{0.1}$
100	0.012	-0.090	-0.082	0.0013	-0.081	0.023	0.013
70	-0.024	-0.031	-0.042	-0.0015	-0.041	0.0010	0.0028



编号: 02-00-086

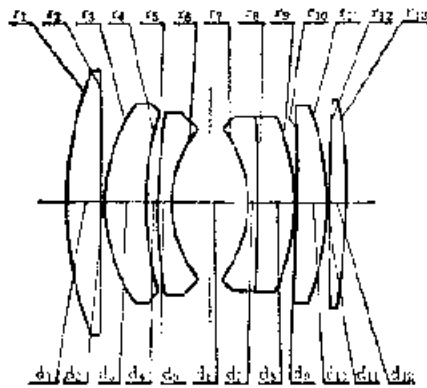
高斯型摄影物镜

E. F. L = 1

B. F. L = 0.6959

FNo. = 1.4

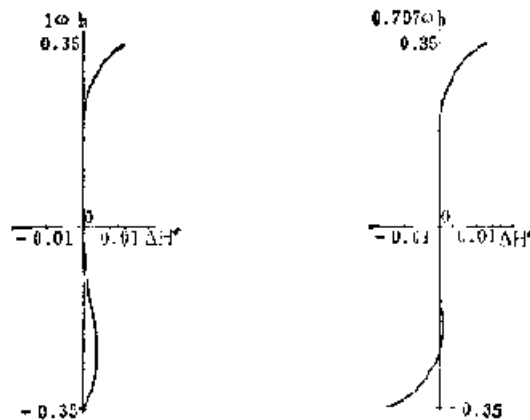
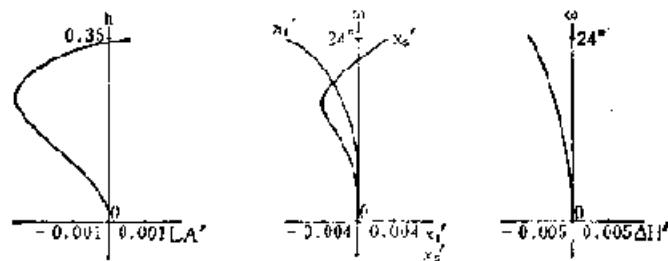
F. A. = $\pm 24^\circ$



序号	r	d	n_d	v_d	序号	r	d	n_d	v_d
1	1.15720	0.1044	1.72055	47.69	8	-7.84738	0.1149	1.78868	43.62
2	-76.27345	0.0019			9	-0.87576	0.0010		
3	0.81319	0.1369	1.78863	43.62	10	12.43738	0.0929	1.74795	44.49
4	0.98070	0.0306			11	-0.73012	0.0010		
5	1.75957	0.0440	1.72311	29.30	12	9.00032	0.0505	1.74795	44.49
6	0.35550	0.2346*			13	-1.73148			
7	-0.36599	0.0287	1.79150	25.90					

0.2346* = 0.1200 + 0.1146

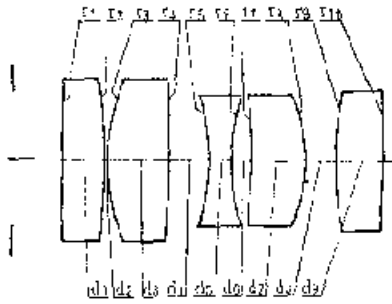
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H	OP (10)
	0.0025	0.00042	0.0010	-0.0018	-0.0044	0.44	-1.37%
h 或 ω %	I. A'	$\Delta H'$	κ'_1	κ'_2	κ'_3 κ'_4	K'_1	$K'_{10.7}$
100	0.00053	-0.0061	-0.0078	0.0031	-0.011	0.0050	0.0019
70	-0.0025	-0.0025	-0.0020	-0.0040	0.0020	-0.0019	0.00062



编号: 02-00-087

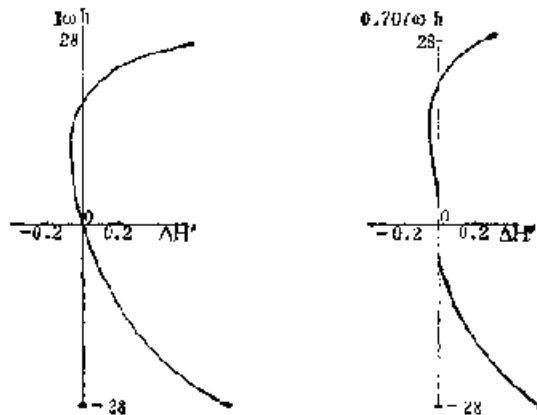
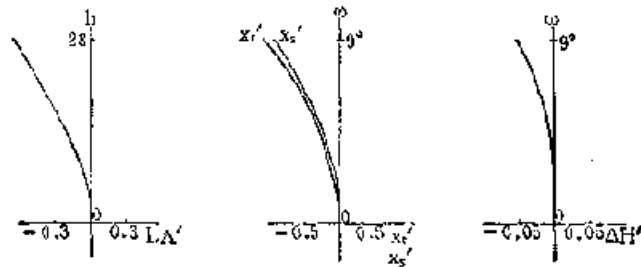
用于摄影、电影摄影和放映的物镜

E. F. L = 100 B. F. L = 45.26 FNo. = 1.8 F. A. = $\pm 9'^{**}$ $L'_{p1} = -18.9$



序号	r	d	n _d	v	序号	r	d	n _d	v
		18.0*							
1	∞	15.1	1.52	58	6	95.61	7.5		
2	-230.34	1.5			7	-159.36	19.6	1.60	57
3	81.00	23.1	1.70	53	8	-62.21	11.7		
4	-368.11	14.6			9	129.61	17.7	1.71	54
5	-82.12	8.3	1.75	28	10	-201.34			

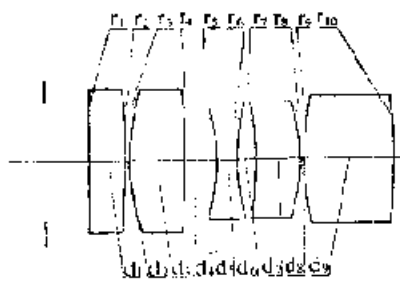
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF (1%)
	-0.15	0.016	0.016	0.12	0.030	18.20	0.32%
h 或 ω %	LA'	$\Delta H'$	x'_1	x'_2	$x'_1 \quad x'_2$	K'_{T1}	$K'_{T1.7}$
100	-0.61	-0.052	-1.12	-0.63	-0.19	0.72	0.20
70	-0.41	-0.019	-0.57	-0.47	-0.10	0.40	0.10



编号: 02 00 088

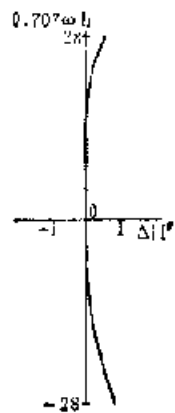
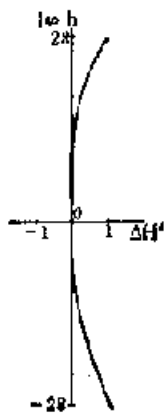
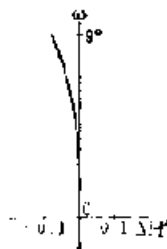
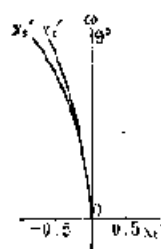
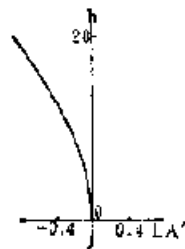
用于摄影、电影摄影和放映的物镜

E. F. L = 100 B. F. L = 46.3 FNo. = 1.8 F. A. = $\pm 9^\circ$ ** $L'_{p1} = -19.1$



序号	r	d	n _d	v	序号	r	d	n _d	v
		19.1*							
1	∞	15.3	1.62	58	6	96.88	7.6		
2	-233.41	1.5			7	-161.47	19.9	1.66	57
3	91.72	23.7	1.70	56	8	-70.75	1.5		
4	-245.34	14.1			9	149.80	38.2	1.71	54
5	-83.21	8.4	1.76	28	10	-164.70			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP (%)
	-0.18	0.167	0.0071	-0.13	-0.043	16.25	-0.47%
h 或 ω %	L.A'	$\Delta H'$	x'_1	x'_2	$x'_1 - x'_2$	K'_{F1}	$K'_{0.7}$
100	-0.82	-0.977	-0.64	0.73	0.14	1.02	0.35
70	-0.52	-0.027	-0.34	-0.33	0.05	0.63	0.21



编号: C2-00-089

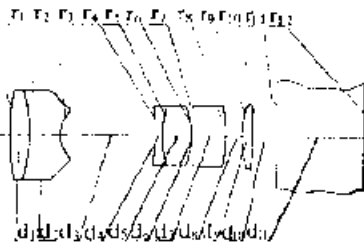
彩色摄影物镜

E.F.L=1

B.F.L=0.177

FNo. =2

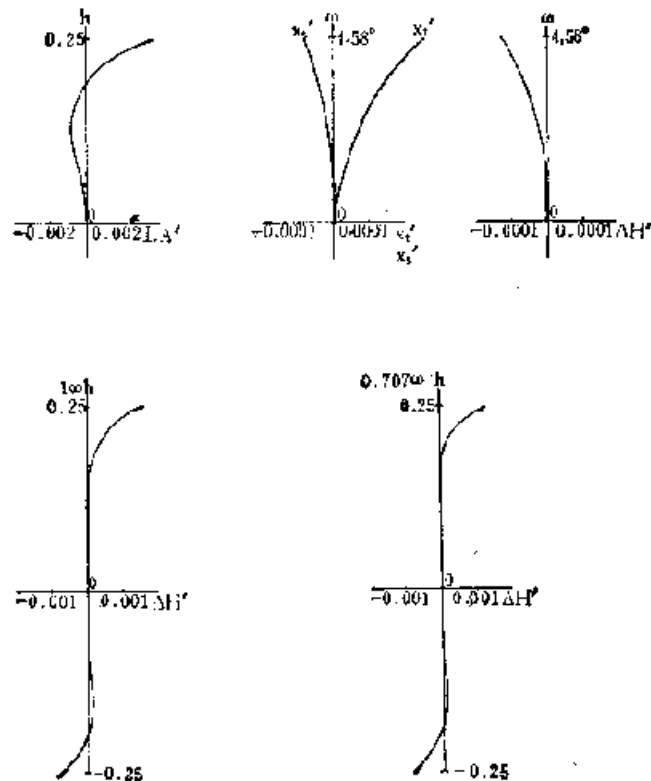
F.A. = $\pm 4.58''$



序号	r	d	n _d	v _d	序号	r	d	n _d	v _d
1	4.1350	0.425	1.802	28.2	7	7.0940	0.755	1.623	60.1
2	-3.2500	0.641	1.625	56.6	8	-3.2850	0.385		
3	0.7706	2.009*			9	2.7940	0.140	1.623	60.1
4	-7.4000	0.189	1.813	25.3	10	-10.3100	0.551		
5	1.8870	0.566	1.625	57.9	11	∞	.887	1.894	54.5
6	-1.8870	0.016			12	∞			

2.009* = 1.609 + 0.400

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QF(1 ω)
	-0.00058	-0.000027	0.000022	-0.000032	-0.000009	0.08	-0.17%
h 或 ω %	LA'	$\Delta H'$	x'_t	x'_s	$x'_t - x'_s$	Kf_1	$Kt_{0.7}$
100	0.0038	-0.00013	0.00025	-0.000084	0.00033	0.00032	0.000063
70	-0.00046	-0.000048	0.00013	-0.000041	0.00017	0.00023	0.000043



编号: 02-00-090

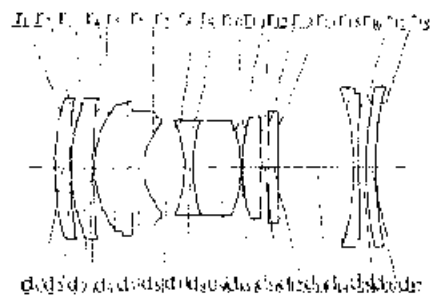
改进的高斯型物镜

E. F. L = 101

B. F. L = 1.04

FNo. = 1.7

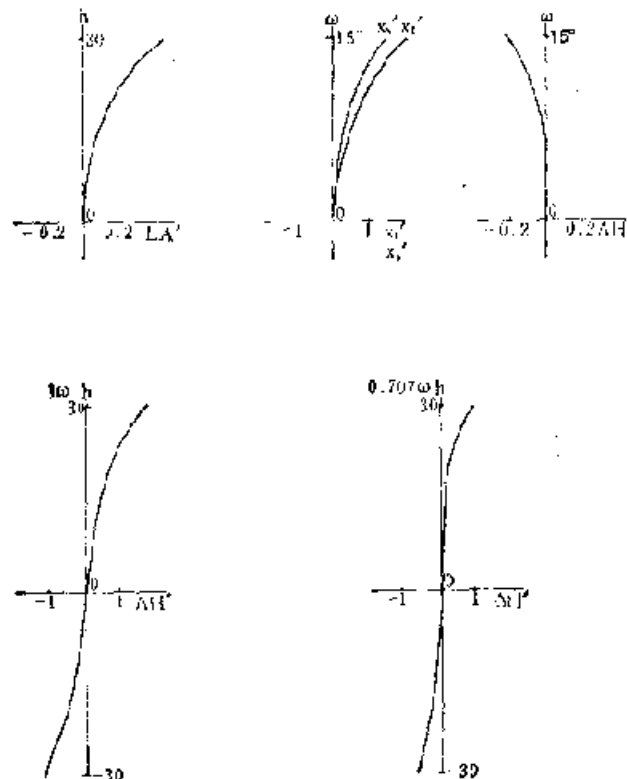
F. A. = 15°



序号	r	d	n_d	v_d	序号	r	d	n_d	v_d
1	98.26	6.60	1.62360.1		10	52.61	0.09		
2	223.40	0.09			11	80.31	5.23	1.67346.8	
3	86.61	0.45	1.62360.1		12	-818.00	3.00		
4	268.10	0.36			13	∞	4.50	1.54259.4	
5	41.82	10.06	1.69454.5		14	∞	32.00		
6	929.50	5.55	1.81325.3		15	-102.50	1.80	1.62466.1	
7	26.72	17.26*			16	403.70	3.00		
8	-47.48	3.75	1.67832.0		17	155.00	4.50	1.51060.9	
9	76.08	20.86	1.69454.5		18	180.00			

$$17.26^* = 9.00 - 8.26$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP (1%)
	0.044	-0.033	0.095	0.072	-0.036	27	-0.52%
h 或 ω %	LA'	LAH'	x'_t	x'_s	$x'_t - x'_s$	K'_{T1}	$K'_{T1.7}$
100	0.45	-0.24	2.04	1.49	0.55	0.20	0.0045
70	0.17	-0.064	1.04	0.61	0.43	0.16	0.0044



编号: 02-00-091

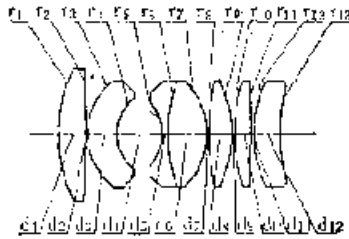
放 映 物 镜

E. F. L-1

B. F. L=0.5193

FNo. =1.7**

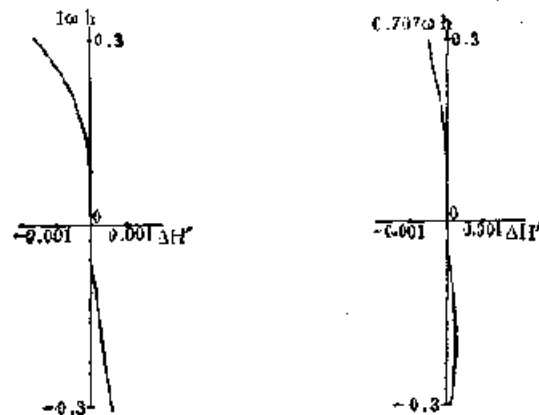
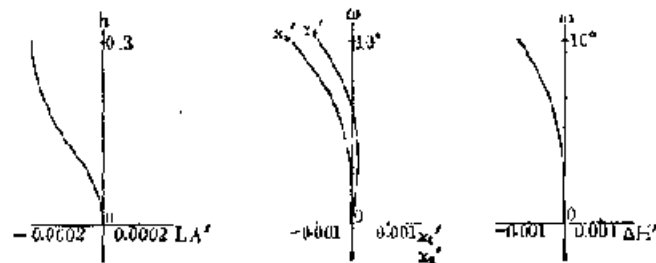
F. A. = $\pm 10^\circ$



序 号	r	d	n _e	v _e	序 号	r	d	n _e	v _e
1	1.57124	0.24880	1.64304	59.86	8	3.51792	0.21986	1.64304	59.86
2	14.72886	0.00254			9	-1.06540	0.00508		
3	0.61653	0.27369	1.81582	25.28	10	1.66467	0.15741	1.64304	59.86
4	0.33188	0.42957*			11	-30.24374	0.02540		
5	-0.43333	0.05332	1.81582	25.28	12	1.01310	0.23865	1.64304	59.86
6	1.41053	0.37321	1.64304	59.86	13	1.46232			
7	-0.71727	0.01676							

$$0.42957^* = 0.21000 + 0.21957$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF (1 ω)
	-0.00017	0.000039	0.00018	-0.00047	-0.00082	0.17	-0.75%
h 或 ω %	LA'	AH'	κ'_t	x'_s	κ'_t x'_s	κ'_{t1}	$\kappa'_{t0.7}$
100	-0.00011	-0.00013	-0.00010	-0.00017	0.00071	-0.00058	-0.00017
70	-0.00035	-0.00043	-0.00011	-0.00084	0.00073	-0.00015	-0.000027



编号: 02-00-092

放 映 物 镜

E. F. L = 1

B. F. L = 0.5309

FNo. = 1.7**

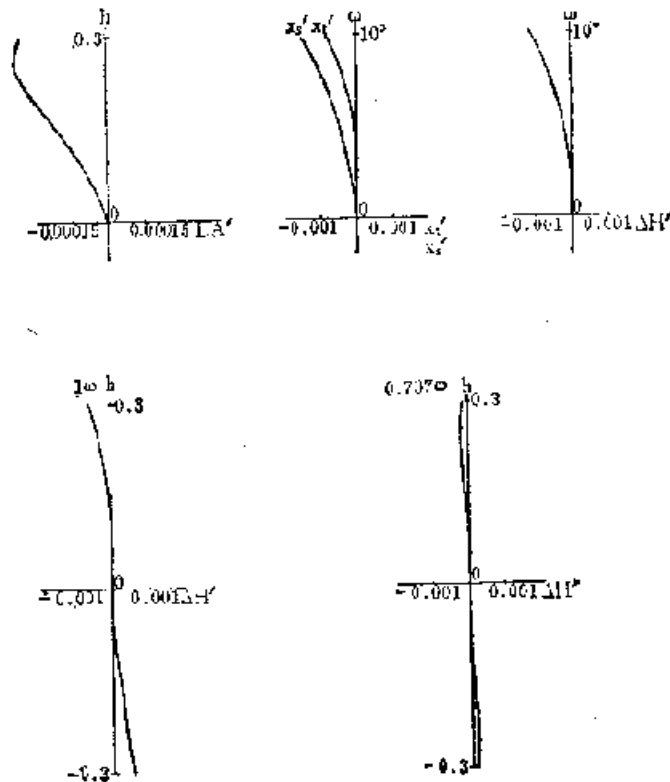
F. A. = $\pm 10^\circ$



序号	r	d	n_d	v_d	序号	r	d	n_d	v_d
1	1.57084	0.20813	1.61304	59.86	8	11.52931	0.24874	1.61304	59.86
2	-18.81000	0.00234			9	-0.94238	0.00508		
3	0.61638	0.27057	1.81262	25.28	10	1.65211	0.17767	1.64304	59.86
4	0.39178	0.45073*			11	-0.29950	0.00254		
5	-0.42726	0.05076	1.31262	25.28	12	0.99848	0.23296	1.64304	59.86
6	1.82705	0.33148	1.64304	59.86	13	1.29367			
7	-0.71181	0.00254							

$$0.45078^* = 0.22000 + 0.23078$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H'	QP (100)
	-0.00017	0.000024	0.00015	-0.00043	-0.00075	0.175	-0.67%
h 或 ω %	LA'	AIH'	x'_4	x'_5	$x'_6 - x'_5$	K'_{F1}	$K'_{F0.7}$
100	-0.00087	-0.0011	-0.00077	-0.0010	0.00083	-0.00010	-0.000023
70	-0.00033	-0.00043	-0.00015	-0.00079	0.00064	0.0000044	0.000012



编号: C2-00-093

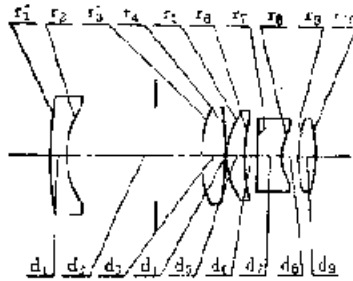
大孔径摄影或电影摄影物镜

E. F. L-1

B. F. L=0.7577

FN₀ = 1.8

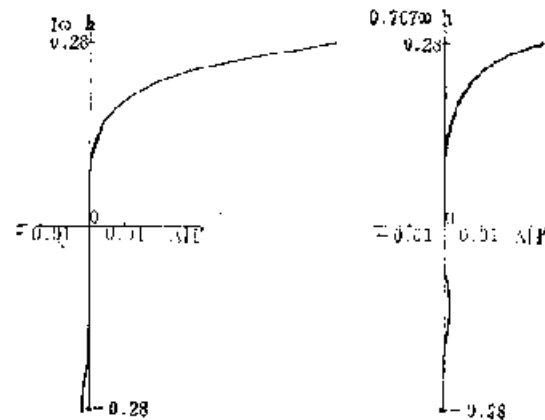
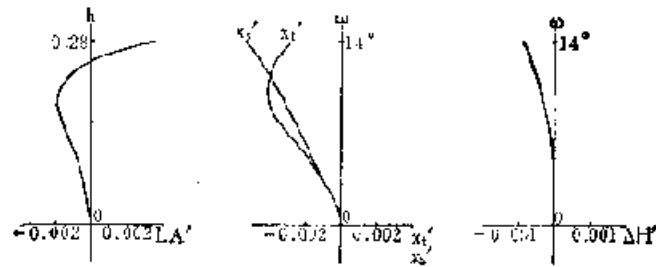
F. A. = +14°



序号	r	d	n _d	v	序号	r	d	n _d	v
1	2.369	0.160	1.50466.7		6	1.761	0.105		
2	0.808	1.245*			7	∞	0.216	1.78525.7	
3	1.185	0.244	1.71353.9		8	0.449	0.160		
4	-4.521	0.014			9	0.999	0.160	1.62060.3	
5	0.707	0.146	1.71353.9		10	-1.367			

1.243* = 1.006 + 0.240

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	H'	QP (1∞)
	-0.0012	0.0010	0.00036	0.00094	-0.00000	0.24	-0.33%
h 或 ω %	LA'	ΔH'	κ ₁ '	κ ₂ '	κ ₁ ' - κ ₂ '	K ₁₁ '	K _{10.7} '
100	0.0038	-0.00083	-0.0031	-0.0063	0.0032	0.035	0.0057
70	-0.0019	-0.00034	-0.0042	-0.0034	-0.00078	0.013	0.0015



编号: 02-00-094

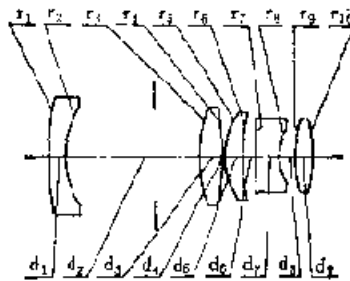
大孔径摄影或电影摄影物镜

E. F. L = 1

B. F. L = 0.80

FN₀ = 1.8

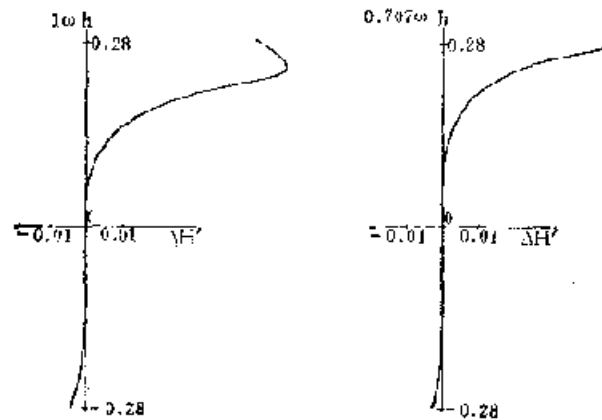
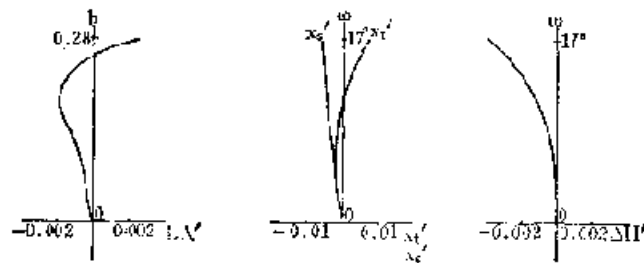
F. A. = ± 17°



序号	r	d	n _d	v	序号	r	d	n _d	v
1	1.569	0.162	1.504	66.7	6	2.920	0.116		
2	0.694	1.072*			7	-80.257	0.194	1.785	25.7
3	1.132	0.233	1.720	50.3	8	0.458	0.185		
4	-8.110	0.017			9	0.918	0.152	1.620	60.3
5	0.799	0.109	1.720	50.3	10	-1.175			

1.072* = 0.872 + 0.200

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	ID	QP (1%)
	-0.0010	-0.00387	0.00011	-0.0019	-0.0019	0.30	-1.28%
h 或 ω (°)	LA'	ΔH'	x'	x'_s	x'_t - x'_s	K ₁₁	K _{10.7}
100	0.0023	-0.00338	0.0078	-0.0069	0.0127	0.02	0.013
70	-0.0018	0.0012	-0.00075	-0.0045	0.0033	0.022	0.0039



编号: 02-00-095

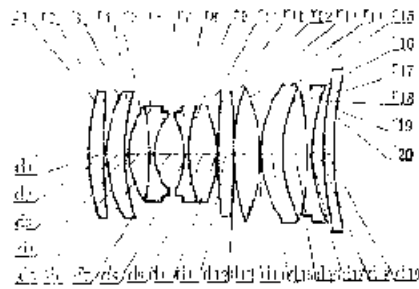
改进的红外高斯型物镜

E. F. L = 101

B. F. L = 0.80

FN₀ = 1.3

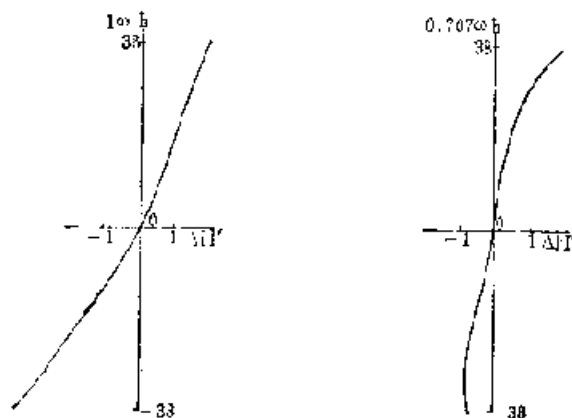
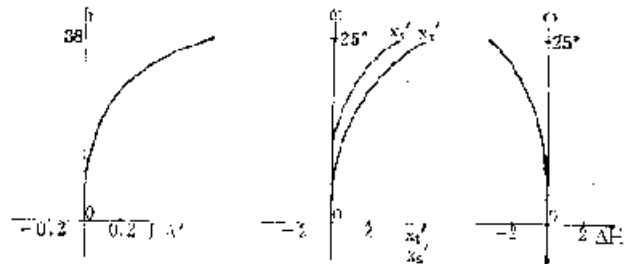
F. A. = ±25°



序号	r	d	n _e	v _e	序号	r	d	n _e	v _e
1	166.81	12.2	1.72047.7		11	479.00	12.2	1.71653.7	
2	596.00	0.4			12	-427.60	0.4		
3	84.10	24.7	1.72047.7		13	184.10	20.4	1.71653.7	
4	188.60	0.4			14	-122.90	0.4		
5	54.46	17.1	1.70640.8		15	86.60	16.2	1.71653.7	
6	-184.90	4.1	1.81325.3		16	102.10	4.6		
7	38.62	20.6*			17	272.40	4.1	1.81325.3	
8	-69.06	4.5	1.81325.3		18	127.20	8.1		
9	116.40	19.5	1.79250.2		19	246.00	6.7	1.51263.1	
10	-90.88	0.4			20	239.40			

20.5* - 6.0 = 14.6

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	III	QE (1ω)
	0.072	-0.11	0.33	-0.25	-1.93	46.35	+ 10%
h 或 ω%	L.A'	H'	x ₁ '	x ₂ '	x ₁ ' - x ₂ '	K _{T1} '	K _{T0.7} '
100	0.72	-3.43	4.90	3.36	1.54	-0.68	-0.49
70	0.21	-1.11	1.87	0.38	0.99	0.04	0.0068



编号: 02-00-096

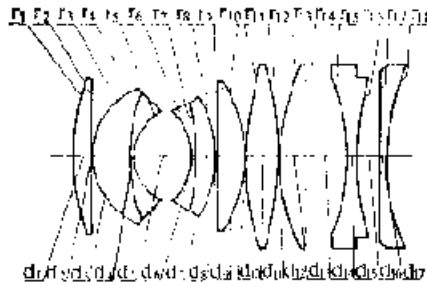
用于夜视仪器的物镜

E. F. L = 100

B. F. L = 0.398

FN₀ = 1.1

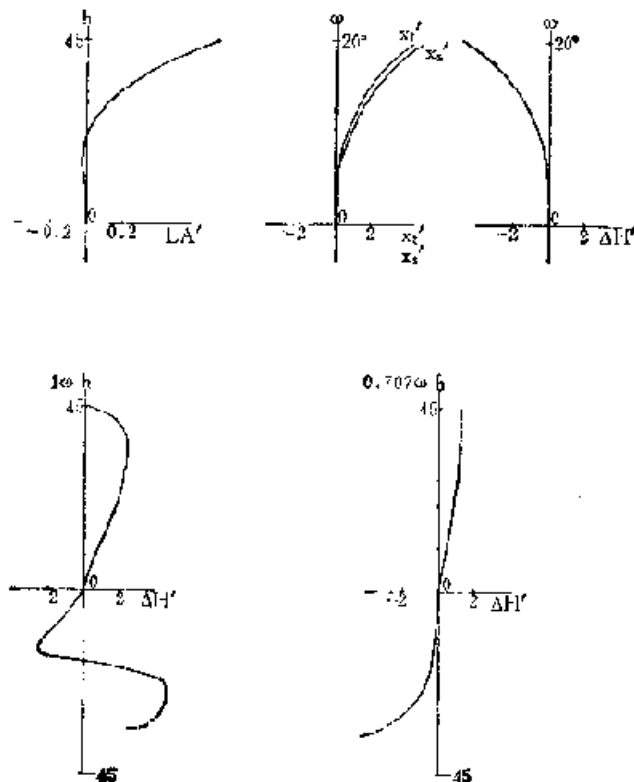
F. A. = ± 20°



序号	r	d	n ₀	v ₀	序号	r	d	n ₀	v ₀
1	124.50	10.00	1.768	25.7	10	-73.4	0.20		
2	552.00	0.20			11	170.30	17.00	1.748	44.5
3	39.44	20.80	1.886	40.8	12	-158.40	0.20		
4	94.30	1.90	1.928	21.3	13	113.20	14.23	1.748	44.5
5	26.60	30.30*			14	-2830.90	22.70		
6	-31.85	1.90	1.928	21.3	15	-114.30	4.70	1.928	21.2
7	-118.98	11.35	1.855	23.6	16	136.30	12.60		
8	-63.35	0.20			17	∞	3.10	1.510	51.0
9	-775.00	15.10	1.748	44.5	18	120			

30.30* = 17.00 + 13.30

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	II	QP(100)
	-0.087	0.49	-0.26	1.60	-3.12	36.60	-13.48%
h 或 ω %	LA'	ΔH'	x ₁ '	x ₂ '	x ₁ ' - x ₂ '	K _I	K _{I0.7}
100	0.76	-4.80	4.24	4.62	-0.38		
70	0.18	-1.46	1.67	2.06	-0.39		-0.61



编号: 02-00-097

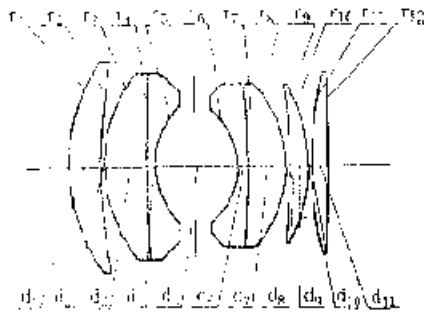
高斯型物镜

E. F. L = 1

B. F. L = 0.75

FNo. = 1.4

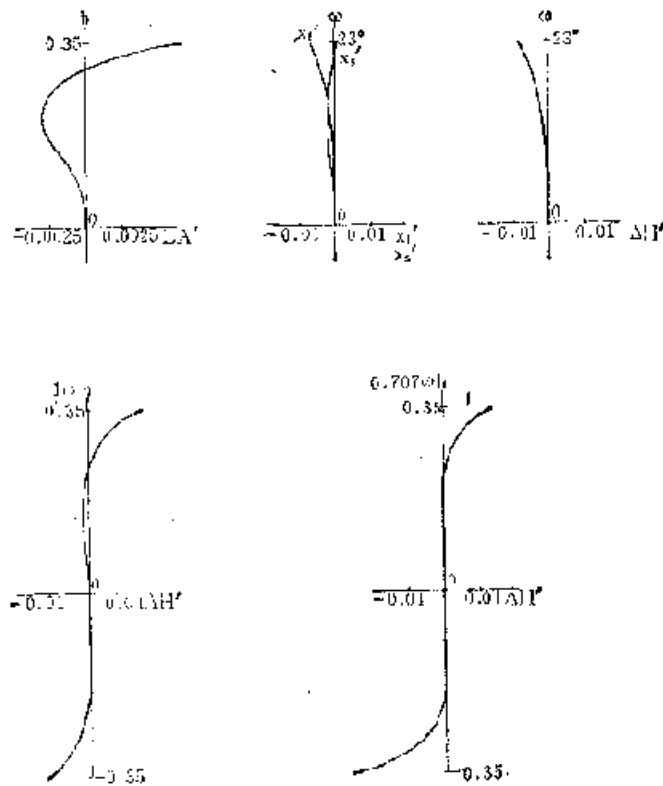
F. A. = $\pm 23^\circ$



序号	r	d	n_d	v	序号	r	d	n_d	v
1	0.7650	0.1260	1.86446	35.9	7	-3.8760	0.1617	1.71300	50.9
2	2.5058	0.0010			8	-0.4535	0.0029		
3	0.5754	0.1686	1.69350	38.1	9	-2.3256	0.0833	1.67790	55.5
4	12.1041	0.0029	1.64831	33.8	10	0.6357	0.0019		
5	0.3240	0.3256*			11	1.5504	0.0620	1.71300	50.9
6	-0.2852	0.0407	1.69895	30.1	12	-16.8774			

0.3256* = 0.1600 + 0.1656

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF (1%)
	-0.0034	0.00012	0.00050	-0.0020	-0.0055	0.42	-1.01%
\bar{n} 或 $\omega\%$	LA'	$\Delta H'$	x'_1	x'_2	$x'_1 - x'_2$	K'_{11}	$K'_{0.7}$
100	0.0068	-0.0085	-0.0371	0.00672	-0.0078	0.0015	0.00038
70	-0.0028	-0.0030	-0.0019	-0.0015	-0.00033	-0.0060	-0.00055



编号: 02-00-098

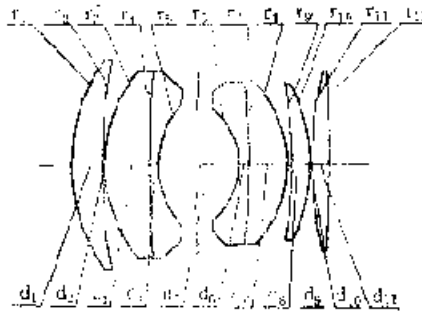
高斯型物镜

E. F. L = 1

B. F. L = 0.7455

FN₀ = 1.4

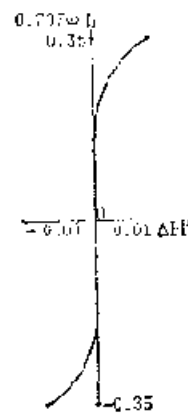
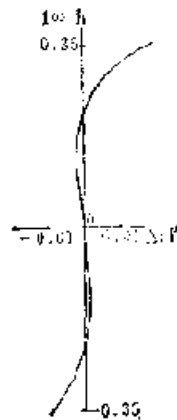
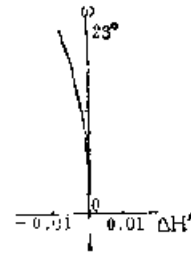
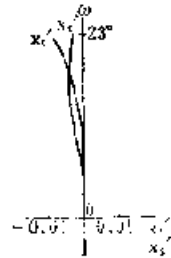
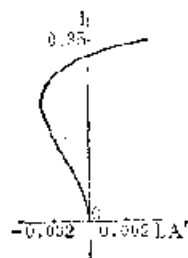
F. A. = ± 23°



序号	r	d	n _d	v	序号	r	d	n _d	v
1	0.8140	0.0910	1.74350	35.0	7	-8.0727	0.1647	1.67730	55.5
2	-1.6512	0.0019			8	-0.4953	0.0058		
3	0.5620	0.1202	1.74450	44.3	9	-2.3256	0.0969	1.71300	53.9
4	3.7132	0.0659	1.69895	30.1	10	-0.6619	0.0019		
5	0.3341	0.3333*			11	1.5891	0.0620	1.71350	53.9
6	0.3227	0.0465	1.71736	29.5	12	8.5028			

0.3333* = 0.1500 + 0.1733

	NS ₁	NS ₂	NS ₃	NS ₄	NS ₅	HI	Q ² (10)
	-0.0028	0.00074	0.00073	-0.0031	-0.0048	0.42	-1.59%
h 或 ω%	LA'	ΔH'	x ₁ '	x ₂ '	x ₁ ' - x ₂ '	h ₁ '	h ₁ ' _{0.7}
100	0.0032	0.0007	0.0083	0.0031	-0.0052	0.0047	0.000047
10	0.0027	-0.0025	-0.0025	-0.0035	0.0010	0.0015	0.000021



编号: 02-00-099

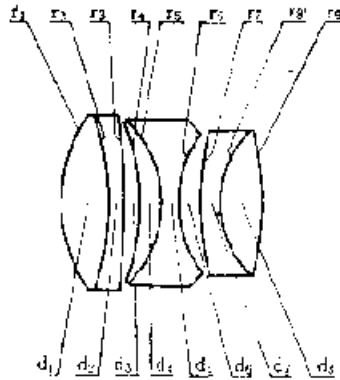
大 孔 径 物 镜

E. F. L = 100

B. F. L = 67.81

FNo. = 2.5

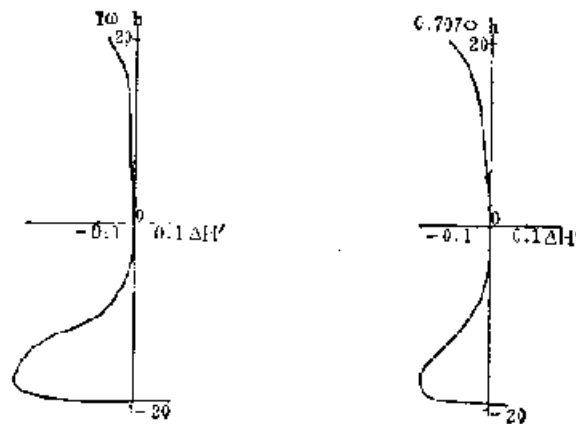
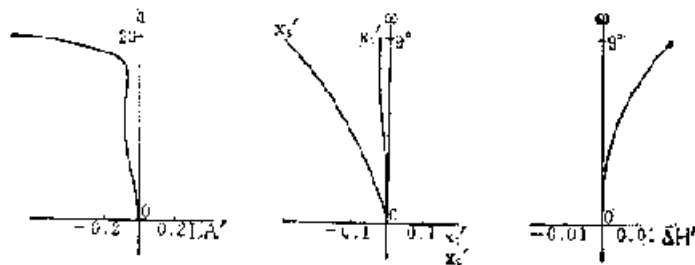
F. A. = $\pm 9^{\circ} 30'$



序号	r	d	n_D	v	序号	r	d	n_D	v
1	37.04	11.00	1.6233	58.1	6	28.96	5.62*		
2	-67.36	4.22	1.6122	37.3	7	69.82	4.68	1.5890	53.0
3	-354.50	3.60			8	22.86	10.30	1.6233	58.1
4	-61.12	5.62	1.6741	32.0	9	-88.28			
5	-27.56	3.74	1.58153	40.7					

$$5.62^* = 5.00 + 2.62$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	$Q^2(1\omega)$
	-0.646	-0.0048	0.011	-0.037	0.9087	16.13	0.12%
1 或 ω %	1.4'	$\Delta H'$	x_1'	x_2'	$x_3' - x_4'$	K_{F1}	$K_{F0.5}$
100	-0.72	0.020	-0.028	-0.30	0.27	1.43	-0.15
70	-0.078	0.0074	0.621	-0.103	0.139	0.36	-0.993



编号: 92-00-100

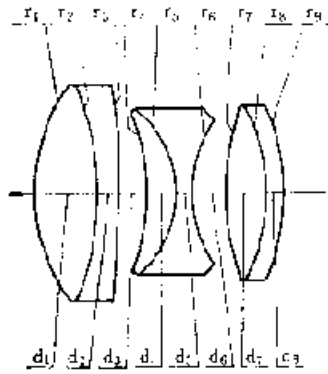
大 孔 径 物 镜

E. F. L = 100

B. F. L = 60.44

FNo. = 1.8

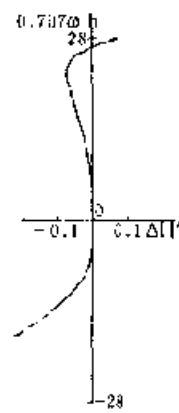
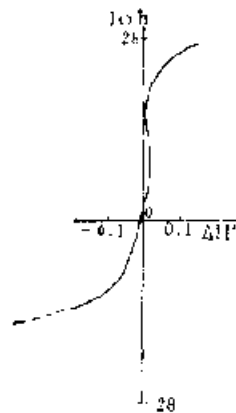
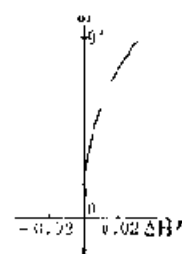
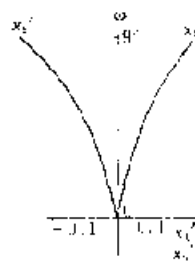
F. A. = $\pm 9''^{**}$



序号	r	d	n_D	v	序号	r	d	n_D	v
1	48.8	17.98	1.624	58.2	5	37.1	8.95 ⁴		
2	69.3	5.72	1.622	36.1	7	81.7	11.44	1.624	58.2
3	-208.2	7.85			8	-47.8	4.09	1.541	47.2
4	-53.7	3.17	1.624	58.2	9	-63.5			
5	-27.6	4.90	1.567	43.8					

$$R_{99}^* = 3.00 + 5.99$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H1	QP (1 ∞)
	-0.30	0.0066	0.043	0.039	0.017	16.22	0.20%
h 或 ω %	LA'	AH'	x_1'	x_2'	$x_3' - x_4'$	h_{F1}	$K_{F0.7}$
00	-0.13	0.033	0.22	-0.27	0.49		-0.17
75	0.22	0.011	0.12	0.14	0.26		0.28



编号: 02-00-101

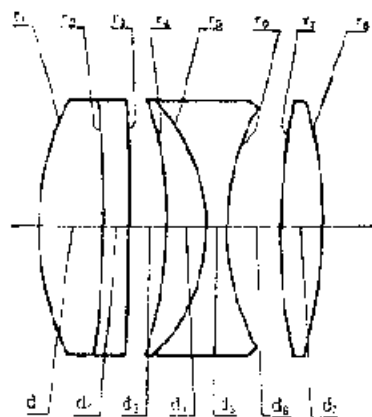
大 孔 径 物 镜

E. F. L = 100

B. F. L = 74.92

FN₀ = 2.5

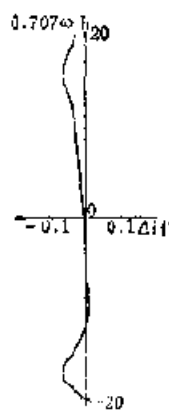
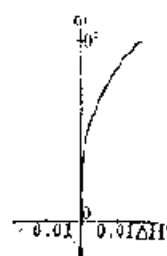
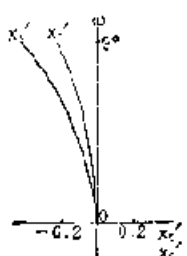
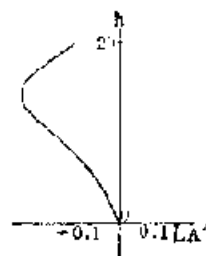
F. A. = ± 9° 30'



序号	r	d	n _D	v	序号	r	d	n _D	v
1	43.3	9.60	1.624	58.2	5	-27.8	3.20	1.567	42.8
2	-160.0	4.00	1.632	36.1	6	38.0	8.16*		
3	-560.0	5.84			7	95.2	5.40	1.624	58.2
4	-61.5	5.20	1.624	44.8	8	-65.4			

$$8.16^* = 2.19 + 6.00$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	Q.P. (100)
	-0.086	0.0031	0.0077	-0.045	0.0073	16.14	0.13%
h 视 角 %	LA'	$\Delta H'$	x'_1	x'_2	$x'_1 - x'_2$	K'_{A1}	$K'_{A0.7}$
100	-0.12	0.016	-0.23	-0.11	0.21	0.064	-0.061
70	0.27	0.0002	-0.139	0.23	0.10	0.0349	0.034



编号: 02-00-102

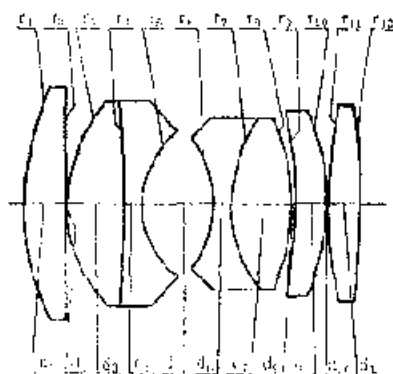
摄影物镜

E. F. L = 100

B. F. L = 53.65

FN₀ = 1.5

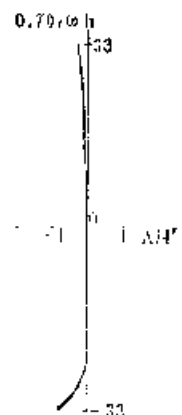
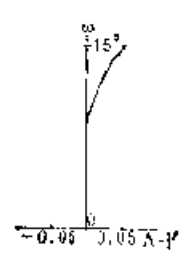
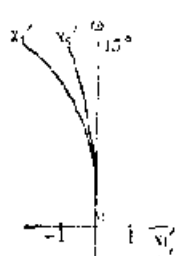
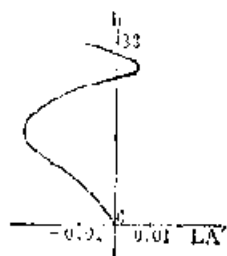
F. A. = ± 15°**



序号	r	d	n _D	v	序号	r	d	n _D	v
1	80.37	12.290	1.6202	60.4	7	43.50	18.810	1.6202	60.4
2	1068.56	0.378			8	-69.31	0.378		
3	45.39	17.020	1.6202	60.4	9	-176.80	9.455	1.6202	60.4
4	387.60	5.073	1.5814	40.8	10	71.20	0.378		
5	26.21	21.750*			11	139.9	9.455	1.6202	60.4
6	-33.19	5.073	1.5822	42.0	12	-191.00			

21.750* = 11.000 + 10.750

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	MT	QF (%)
	-0.043	0.023	-0.019	-0.17	0.014	26.63	0.13%
h 4.0%	LA'	AP'	x'_1	x'_2	$x'_3 - x'_2$	K_F	$\sigma_{c,7}$
0°	-0.0094	0.030	-2.10	-0.87	-1.23	-1.61	-0.039
7°	-0.016	0.070	0.74	0.43	-0.31	0.31	-0.026



编号: 02-00-103

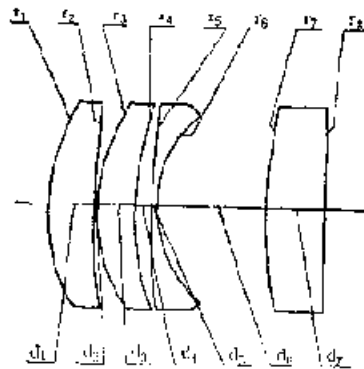
四 组 元 物 镜

E. F. L = 100

B. F. L = 49.711

FN₀ = 2

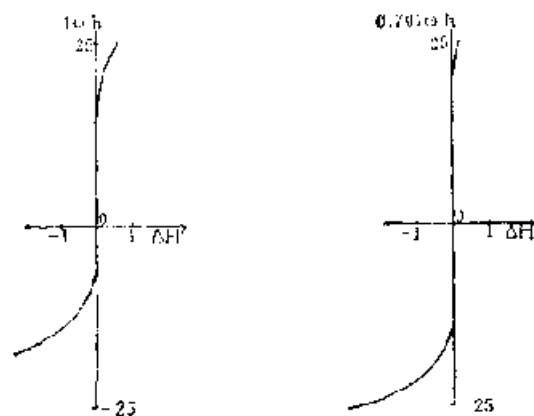
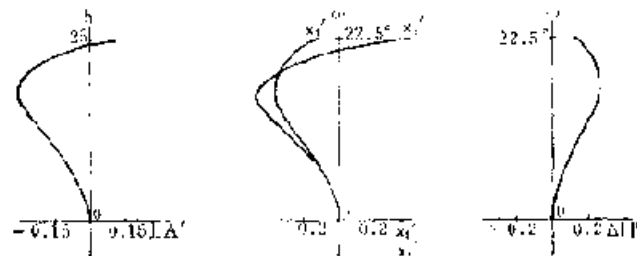
F. A. = ± 22.5°



序号	r	d	n _D	v	序号	r	d	n _D	v
1	41.155	9.6282	1.7359	51.4	5	172.479	1.1554	1.7386	26.3
2	153.450	0.1920			6	24.533	22.4142*		
3	35.861	8.0936	1.7369	51.4	7	98.823	12.0489	1.7546	34.7
4	57.796	3.0779			8	372.074			

$$22.4142^* = 32.4142 + 10.0600$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (100)
	-0.13	0.019	-0.0986	-0.21	0.55	41.20	0.33%
100%	$\Delta A'$	$\Delta H'$	$\Delta x'_1$	$\Delta x'_2$	$\Delta x'_3 - \Delta x'_4$	ΔT_1	$K'_{T0.7}$
100	0.10	0.13	0.097	0.38	-0.48		-1.09
70	-0.30	0.27	-0.38	-0.48	0.10	-1.33	-0.14



编号: 02-00-104

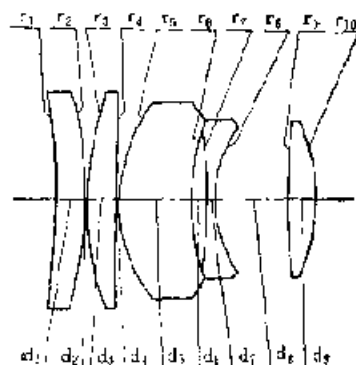
五片式物镜

E. F. L = 100

B. F. L = 60.1944

FNo. = 1.95

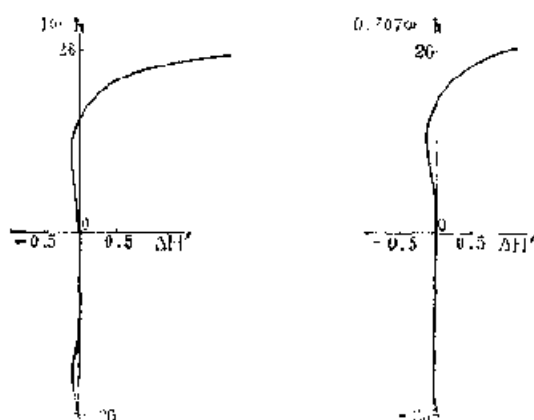
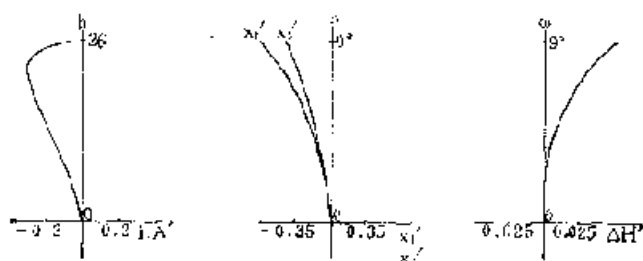
F. A. = $\pm 9^{\circ}$ **



序号	r	d	n _D	v	序号	r	d	n _D	v
1	-79.3726	8.24519	1.620360.3		6	66.0858	4.75684		
2	166.1365	0.21142			7	147.2373	2.11415	1.718020.5	
3	91.6120	8.13349	1.620360.3		8	34.532520.08444*			
4	-493.0888	0.52854			9	157.5050	8.45681	1.620360.3	
5	44.9415	20.08144	1.620360.3		10	-48.4202			

20.08444* = 4.22830 + 15.85614

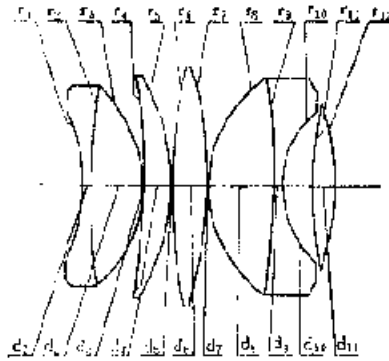
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	MI	QP (1 ω)
	-0.10	-0.085	-0.012	-0.038	0.027	16.15	0.32%
h 或 0%	L.A'	$\Delta H'$	x_1'	x_2'	$x_3' - x_4'$	K_{11}'	$K_{10,7}'$
100	-0.076	0.052	-0.69	-0.38	-0.21	1.0	0.038
70	-0.28	0.018	-0.33	0.23	-0.099	0.51	-0.024



编号: 02-00-105

放 大 镜

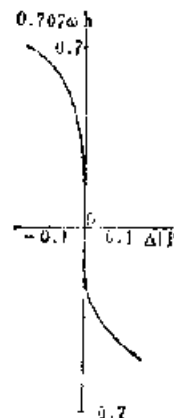
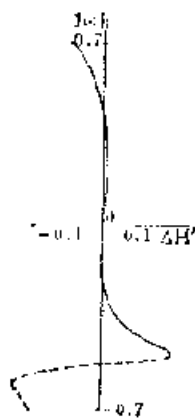
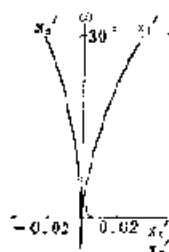
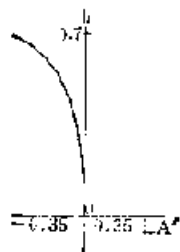
E.F.L = 1 B.F.L = -0.0075 $FN_0 = 0.7$ F.A. = $\pm 30^\circ$ $L_{p1}' = -0.3201$ $l_1 = -\infty$



序号	r	d	n_D	v	序号	r	d	n_D	v
		0.3201*			7	-4.2921	0.0057		
1	-1.7541	0.0738	1.7819	25.8	8	1.3160	0.0812	1.74795	44.8
2	9.3903	0.5109	1.71616	53.8	9	-6.3029	0.0908	1.81265	25.4
3	-1.2965	0.0057			10	0.3826	0.3122		
4	-3.7268	0.2780	1.71616	53.8	11	4.3160	0.2214	1.74795	44.8
5	-2.1020	0.0057			12	-2.3137	1.1350		
6	5.7062	0.3580	1.71616	53.8					

*此系出瞳距离。

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H	Q.P. (%)
	0.32	0.030	0.001	0.063	-0.086	0.50	-12.41%
h 或 ω %	LA'	$\Delta H'$	x_1'	x_2'	x_3' x_4'	K_{11}'	$K_{11.7}'$
100	-0.70	-0.075	0.032	-0.022	0.054		0.099
70	-0.19	-0.025	0.017	-0.013	0.030		0.068

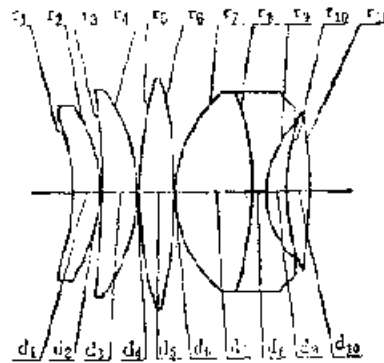


编号: 02-00-106

放 大 镜

E. F. L = 1 B. F. L = -0.23 FNo. = 0.7 F. A. = $\pm 30^\circ$

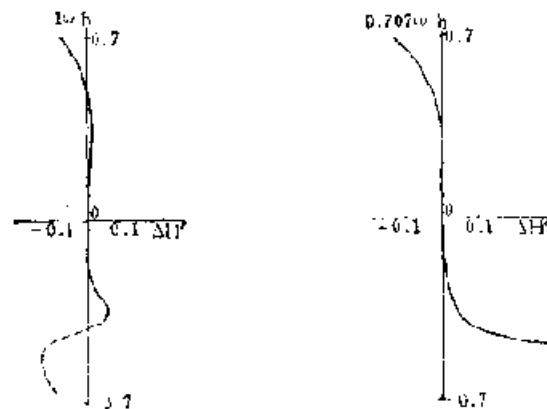
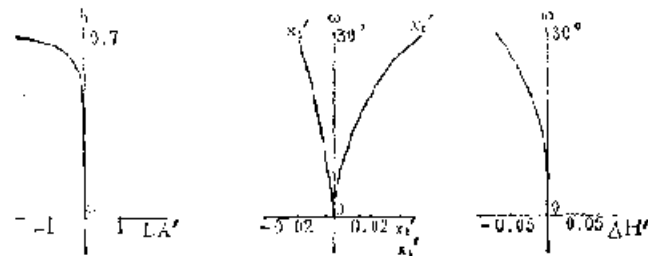
$L_{p1}' = -0.4982$ $l_1 = -\infty$



序号	r	d	n _D	v	序号	r	d	n _D	v
		0.1922*			6	-5.2415	0.0080		
1	-2.1522	0.3278	1.7479544.3	7	1.4263	0.8080	1.73388	51.7	
2	-1.6199	0.0048			8	-3.2218	0.1359	1.7919	25.8
3	1.4036	0.3918	1.7479544.3	9	0.9538	0.2478			
4	1.8597	0.0080			10	2.3413	0.2718	1.71316	53.8
5	4.2053	0.3997	1.7161553.8	11	-4.7218	1.0400			

↑ 此系出瞳位置。

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	(Q.P. - 0.5)
	-0.25	0.046	0.033	-0.031	-0.004	0.57	-13.25%
h 或 $\omega\%$	LA'	$\Delta H'$	χ_1'	χ_2'	$\chi_1' - \chi_2'$	$K_{1.7}$	$K_{1.7}$
100	-1.96	-0.075	0.050	-0.019	0.069		
70	-0.15	-0.035	0.023	-0.012	0.035		



编号: 02-00-107

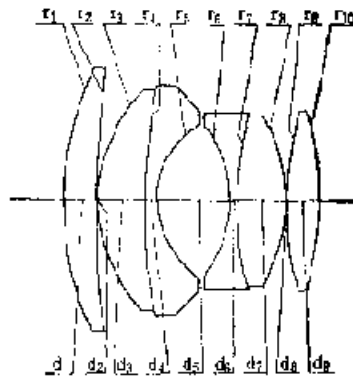
高 斯 型 物 镜

E. F. L = 1

B. F. L = 0.5178

FNo. = 1

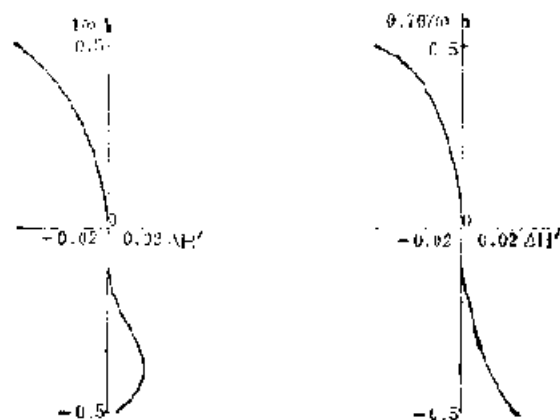
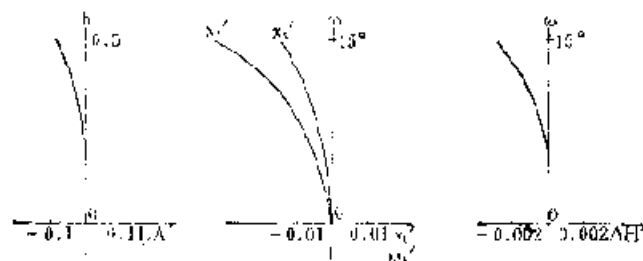
F. A. = $\pm 15'^{**}$



$\frac{r}{d}$ Sj	r	d	n_d	v	$\frac{r}{d}$ Sj	r	d	n_d	v
1	1.1500	0.1296	1.8206	45.0	6	-0.4429	0.0506	1.8427	39.0
2	4.5715	0.0006			7	1.3631	0.1788	1.9006	40.4
3	0.5664	0.2242	1.9006	40.4	8	-0.6550	0.0006		
4	2.3972	0.0412	1.7918	25.9	9	1.1632	0.1308	1.6940	54.5
5	0.3422	0.2860*			10	-1.0336			

$0.2860^* = 0.1460 - 0.1400$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (100)
	0.030	0.0021	0.0037	-0.0045	0.0016	0.26	1.12%
1 或 $\omega\%$	LA'	ΔH'	Δ_1'	Δ_2'	$\Delta_3' - \Delta_4'$	K_{F1}	$K_{F0.7}$
100	-0.092	-0.0029	-0.024	-0.015	-0.009	-0.022	-0.0014
0	-0.034	-0.00087	-0.0164	-0.0031	-0.0082	-0.0090	-0.00056



编号: 02-00-108

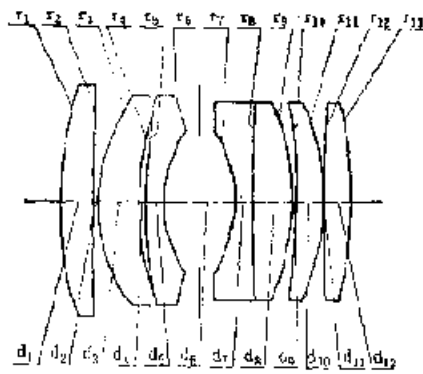
高斯型摄影物镜

E. F. L = 1

B. F. L = 0.733

FN₀ = 1.4

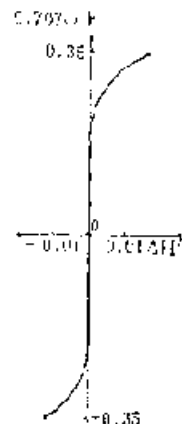
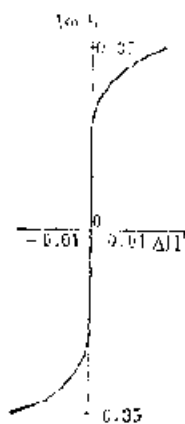
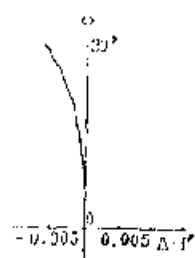
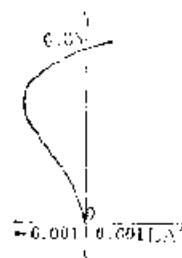
F. A. = ± 20°



序号	r	d	np	v	序号	r	d	np	v
1	1.1530	0.1048	1.8150045	27	8	4.9204	0.1237	1.80043	32.7
2	12.0000	0.0113			9	-0.7153	0.0019		
3	0.5136	0.1312	1.6940054	6	10	-2.5179	0.0810	1.80043	32.7
4	1.0375	0.0160			11	-0.7523	0.0019		
5	1.6420	0.0451	1.6300335	4	12	3.9626	0.0810	1.71615	53.7
6	0.3479	0.2286*			13	-1.2605			
7	-0.3695	0.0571	1.79130	25.3					

$$0.2286^* = 0.1186 - 0.1100$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF (%)
	-0.0013	0.00010	0.00037	-0.0019	0.0036	0.30	-1.50%
h 或 α %	ΔA'	ΔH'	Δf	Δs'	$x'_1 - x'_2$	K_{f1}^2	$K_{f5.7}^2$
10°	0.00064	-0.0057	-0.0063	-0.0037	-0.0026	0.00035	-0.000038
20°	-0.0018	-0.0016	-0.0033	-0.0028	0.00047	0.0013	0.00025



编号: 02-00-109

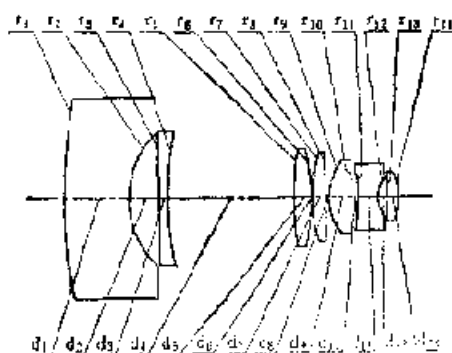
反 远 距 型 物 镜

E. F. L = 1.03

B. F. L = 0.84

$FN_D = 1.6$

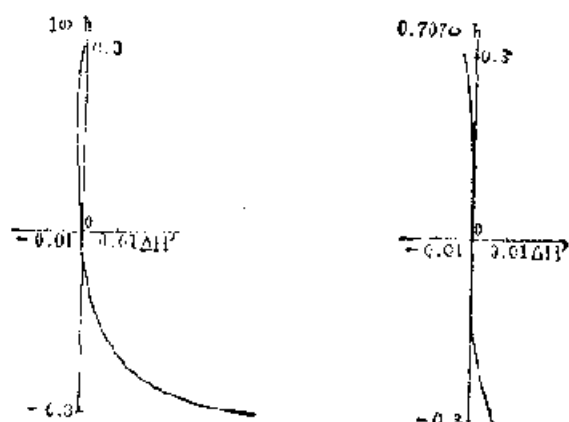
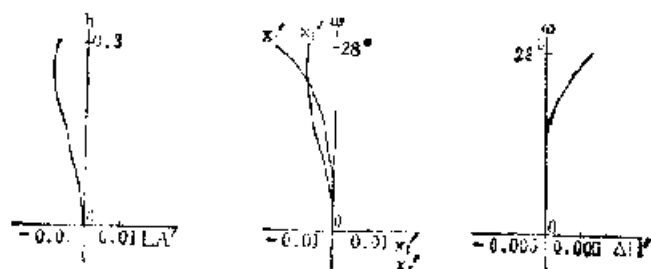
F. A. = $\pm 28^\circ$



序 号	r	d	n_D	v	序 号	r	d	n_D	v
1	10.650	1.215	1.487	76.4	8	-24.784	0.015		
2	1.688	0.615			9	0.988	0.446	1.501	66.9
3	20.921	0.160	1.518	65.1	10	13.517	0.106		
4	6.461	2.415			11	-4.525	0.431	1.785	26.1
5	4.541	0.325	1.518	65.1	12	0.668	0.154*		
6	-4.541	0.015			13	2.587	0.277	1.638	57.3
7	2.543	0.262	-1.620	69.3	14	-1.093			

$$0.154^* = 0.030 + 0.074$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (100)
	0.0054	-0.00030	0.00044	-0.0031	0.00072	0.84	1.11%
h 或 $\omega\%$	LA'	$\Delta H'$	x_1'	x_2'	$x_4' - x_5'$	K_{T1}'	$K_{T0.7}'$
100	-0.0688	0.0061	-0.3178	-0.0083	-0.0095	0.623	0.0349
70	-0.6079	0.0010	-0.0038	-0.0068	0.0030	0.0020	0.00027



编号: 02-99-110

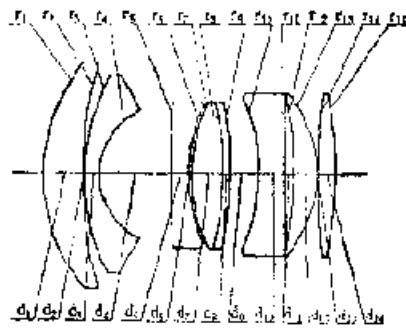
大孔径广角摄影镜头

E. F. L = 1

B. F. L = 1.138

FN₀ = 2

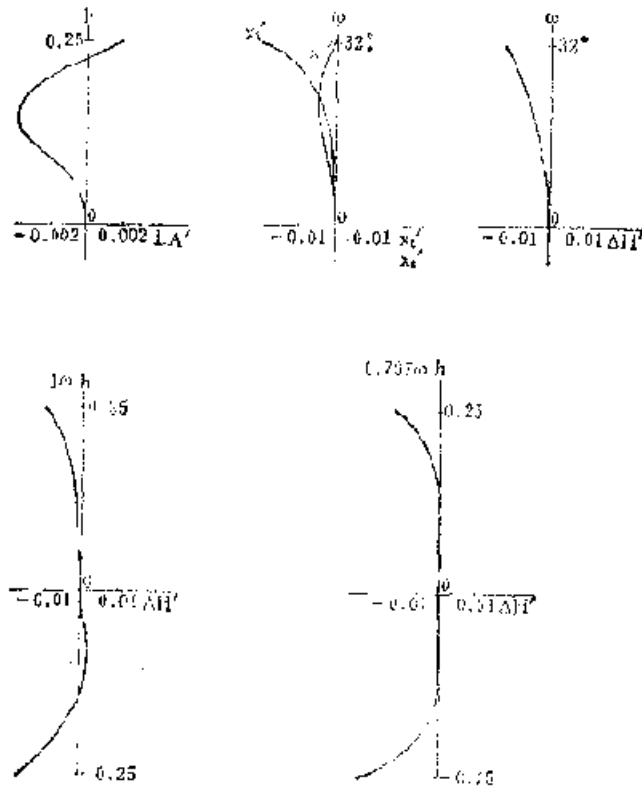
F. A. = ±32°



序号	r	d	n _D	v	序号	r	d	n _D	v
1	0.7781	0.1941	1.7234	37.9	9	-1.6958	0.1347*		
2	1.8389	0.0040			10	-0.8004	0.1247	1.7174	29.5
3	0.0004	0.0639	1.5133	64.0	11	4.5543	0.0400		
4	0.3198	0.3317			12	-1.7400	0.1110	1.7292	54.6
5	81.3104	0.0833	1.8052	25.4	13	-0.5547	0.0029		
6	0.3185	0.0157			14	3.8732	0.0833	1.6938	55.6
7	0.7053	0.1441	1.8051	40.3	15	-1.6010			
8	-1.3701	0.0285	1.6030	30.1					

$$0.1347^* = 0.0700 + 0.0647$$

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	HI	OP (1%)
	-0.0025	0.0614	0.0034	0.0028	-0.0071	0.32	-1.57%
h 或 %	LA'	ΔH'	Δ ₁	Δ ₂	Δ ₃ - Δ ₄	K ₁₁	K _{16.7}
100	0.0023	-0.012	-0.021	0.0089	-0.022	-0.013	-0.0019
70	-0.0035	-0.0025	-0.0010	-0.0054	0.0011	-0.016	-0.0014



编号: 02-00-111

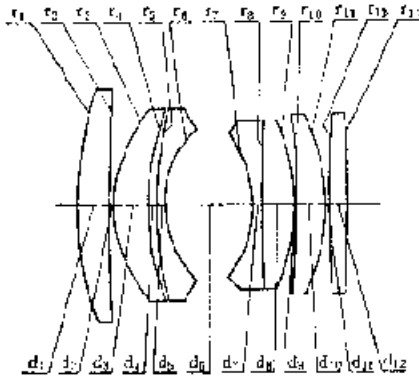
扩展的高斯型摄影物镜

E. F. L = 1

B. F. L = 0.69672

FNo. = 1.4

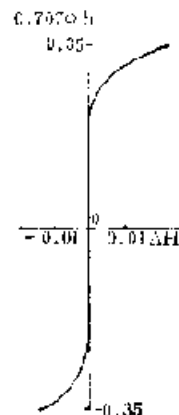
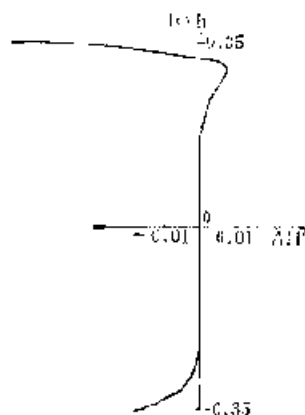
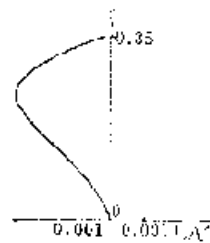
F. A. = $\pm 22^\circ$ **



序号	r	d	n _D	v	序号	r	d	n _D	v
1	1.03793	0.098094	1.71700	47.99	8	24.49210	0.101507	1.78831	47.37
2	10.42420	0.010372			9	-0.58788	0.003249		
3	0.43740	0.107949	1.78831	47.37	10	-2.77625	0.090000	1.78831	47.37
4	0.74461	0.026649			11	-0.61318	0.008258		
5	1.07497	0.024892	1.68893	31.17	12	3.50851	0.054188	1.74400	44.77
6	0.31467	0.272222*			13	-4.03355			
7	-0.35410	0.026556	1.72830	28.68					

0.272222* = 0.140000 + 0.132222

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	$Q^2 (1\omega)$
	-0.0023	0.000054	0.00077	-0.0035	-0.0039	0.33	1.61%
h 或 $\omega\%$	LA'	AE'	x_1'	x_2'	$x_1' - x_2'$	K_{T1}^2	$K_{T1.7}^2$
100	-0.00013	-0.0064	-0.0016	-0.0024	0.00085		0.0012
70	-0.0027	-0.0023	-0.0015	-0.0037	0.0022	0.0335	0.0063



编号: 02-00-112

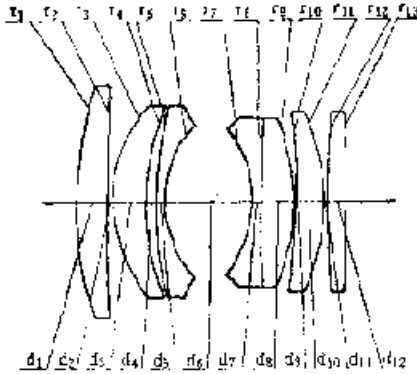
扩展的高斯型摄影物镜

E. F. L = 1

B. F. L = 0.70993

FNo. = 1.4

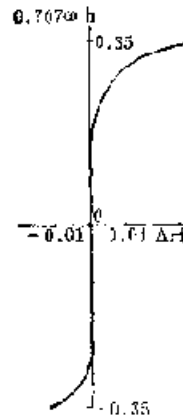
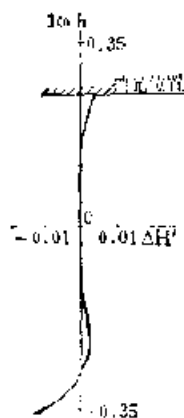
F. A. = $\pm 22^\circ$ **



序号	r	d	n_D	v	序号	r	d	n_D	v
1	0.88904	0.101521	1.71700	47.99	8	1.48043	0.102998	1.78831	47.37
2	5.77321	0.001177			9	-0.60714	0.005689		
3	0.48607	0.097113	1.78831	47.37	10	-1.74852	0.087696	1.78831	47.37
4	0.68124	0.031782			11	-0.56500	0.002550		
5	0.94172	0.022739	1.68893	31.17	12	3.29359	0.056698	1.74403	44.77
6	0.30648	0.285453*			13	-2.61615			
7	-0.34537	0.022954	1.72830	28.68					

0.285453* = 0.145453 - 0.140000

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1 ∞)
	-0.0025	-0.00012	0.00076	-0.0033	-0.0040	0.39	-1.64%
h 或 $\omega\%$	LA'	$\Delta H'$	x'_1	x'_2	$x'_3 - x'_2$	K'_{11}	$K'_{10.7}$
0.0	0.0010	-0.0063	-0.0021	-0.0025	0.00035		0.0016
7.0	-0.0019	-0.0023	-0.0014	0.0015	0.0031	0.0080	0.00095



编号: 02-00-113

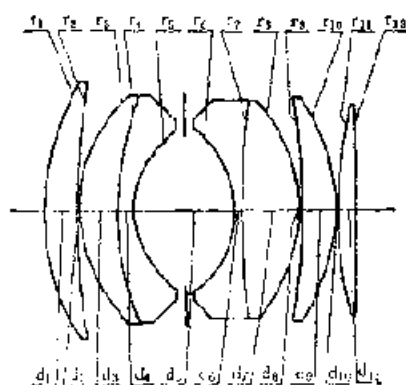
五组七片大孔径摄影镜头

E. F. L = 1

B. F. L = 0.6817

FN₀ = 1.1

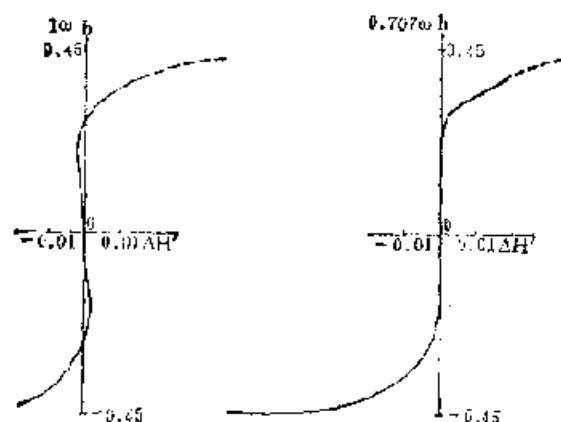
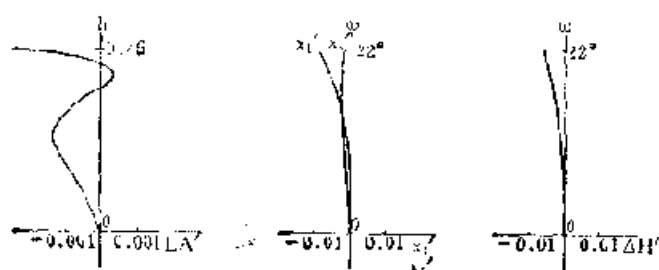
F. A. = ±22°



序号	r	d	n _D	v	序号	r	d	n _D	v
1	0.82451	0.11203	1.80440	39.6	7	3.26154	0.19154	1.76200	40.2
2	2.61302	0.00181			8	-0.55605	0.00181		
3	0.51629	0.15191	1.75700	47.8	9	2.71114	0.12107	1.71300	53.9
4	0.99758	0.05782	1.71735	29.5	10	-0.66134	0.00181		
5	0.31233	0.33971*			11	1.45348	0.06324	1.77390	50.3
6	-0.34345	0.02710	1.78472	25.6	12	-0.87641			

0.33971* = 0.15000 - 0.16371

	ΣS ₁	ΣS ₂	ΣS ₃	ΣS ₄	ΣS ₅	HJ	QP (1°)
	-0.0040	-0.00058	0.00070	-0.0039	-0.0054	0.39	-1.38%
h 或 m%	LA'	ΔL'	α'	γ'	δ'	K ₁	K _{2, 0.7}
100	-0.0024	-0.0035	-0.0025	-0.0020	-0.0055	0.027	-0.00053
70	-0.00057	-0.0022	0.0030	-0.0027	-0.00927	0.028	0.000024



编号: 02-00-114

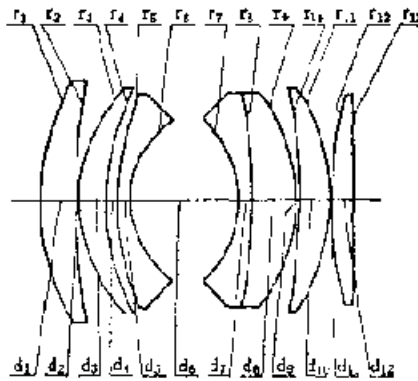
六组元大孔径摄影镜头

E. F. L = 1

B. F. L = 0.6899

FNo. = 1.2

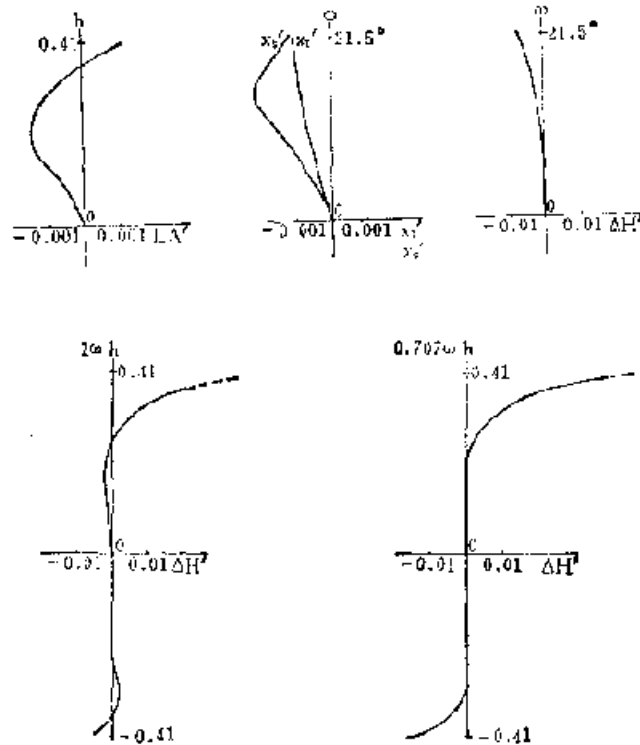
F. A. = $\pm 21.5^\circ$



序号	r	d	n _D	v	序号	r	d	n _D	v
1	0.7155	0.1103	1.5030	46.6	8	-1.7781	0.1388	1.7350	52.4
2	2.5138	0.0021			9	-0.5193	0.0018		
3	0.4702	0.0390	1.806	40.8	10	-1.8394	0.1014	1.7130	53.9
4	0.7104	0.0347			11	-0.5741	0.0021		
5	0.8663	0.0320	1.7618	27	12	1.4653	0.0523	1.730	53.9
6	0.2957	0.0413*			13	-16.6768			
7	-0.3267	0.0320	1.7283	28.5					

0.3413* - 0.1700 + 0.1713

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1%)
	-0.0033	-0.0047	0.00084	-0.0033	-0.0050	0.38	-1.68%
h 或 ω%	F A'	AF'	λ'	λ'	$\lambda' - \lambda$	K_{11}^4	$\lambda_{0.7}^4$
100	0.0011	-0.0065	-0.0011	-0.0012	0.000075	0.027	0.0011
79	0.0011	0.0023	0.00033	-0.0023	0.0015	0.033	0.0018



编号: 02-00-115

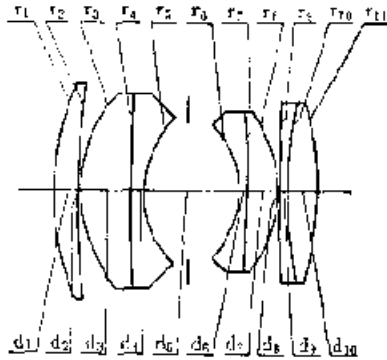
校正了象差的照相机镜头

E. F. L = 1

B. F. L = 0.69525

FN₀ = 1.8

F. A. = ± 23°



序号	r	d	n _D	v	序号	r	d	n _D	v
1	0.72988	0.0678	1.80610	40.8	7	-2.58920	0.0858	1.80610	40.8
2	2.53890	0.0056			8	-0.35318	0.0419		
3	0.40666	0.1441	1.58144	40.7	9	4.26850	0.0333	1.80518	25.4
4	5.98870	0.0291	1.75520	27.5	10	1.30570	0.0775	1.69620	55.6
5	0.28127	0.2685*			11	-0.90395			
6	-0.25991	0.0213	1.59270	35.4					

$$0.2685^* = 0.1300 + 0.1385$$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H _i	Q ^D (1ω)
	-0.0018	0.00020	0.00028	-0.0022	-0.0023	0.42	-1.34%
h 或 ω%	LA'	ΔH'	x ₁ '	x ₂ '	x ₁ ' - x ₂ '	K ₁₁	K _{10,1}
100	-0.000061	-0.0056	-0.3027	-0.0086	-0.0013	-0.0050	-0.00323
70	-0.0016	-0.0017	-0.3025	0.0032	0.00335	-0.0032	0.00014

