

Supporting Information

Growth, Optical and Electrical Properties of a Nonlinear Optical Crystal $\text{NaBa}_4\text{Al}_2\text{B}_8\text{O}_{18}\text{Cl}_3$

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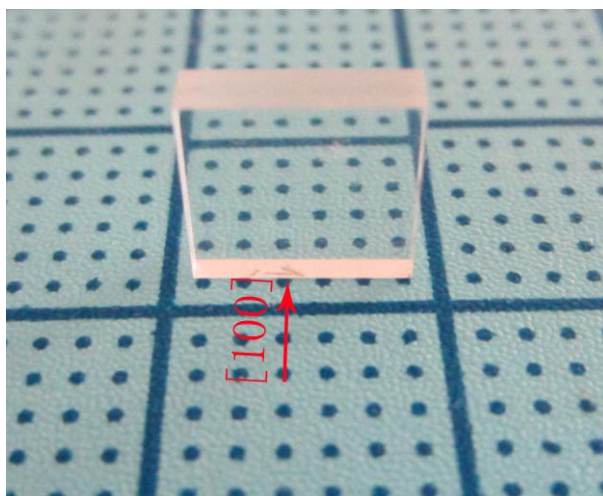


Figure S1. (100)-cut NBAC crystal.

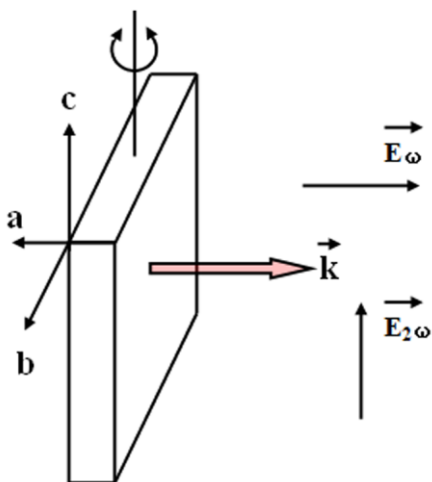


Figure S2. Orientation of the (100)-cut NBAC crystal to measure the Maker fringes of d_{15} ; the \vec{E}_ω is the fundamental light; the $\vec{E}_{2\omega}$ is the second harmonic light.

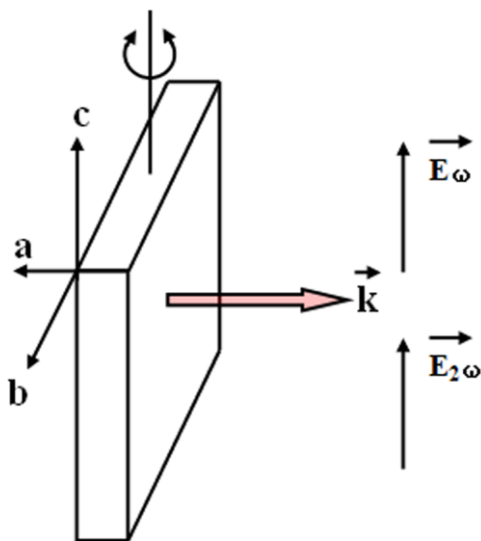


Figure S3. Orientation of the (100)-cut NBAC crystal to measure the Maker fringes of d_{33} ; the \vec{E}_ω is the fundamental light; the $\vec{E}_{2\omega}$ is the second harmonic light.

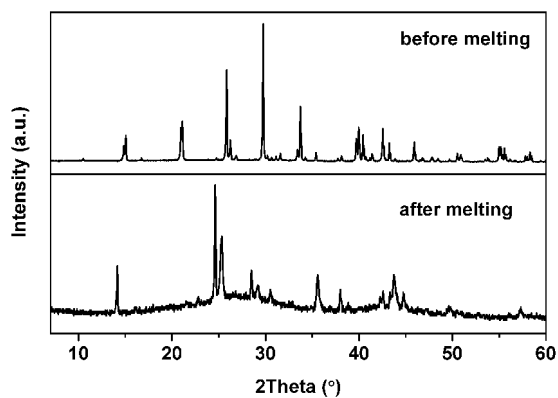


Figure S4. The XRD patterns of NBAC before melting and after melting.

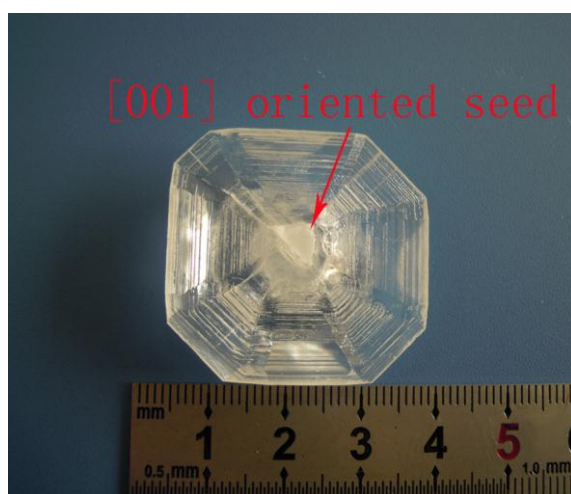


Figure S5. The as-grown NBAC crystal with a [001] oriented seed.

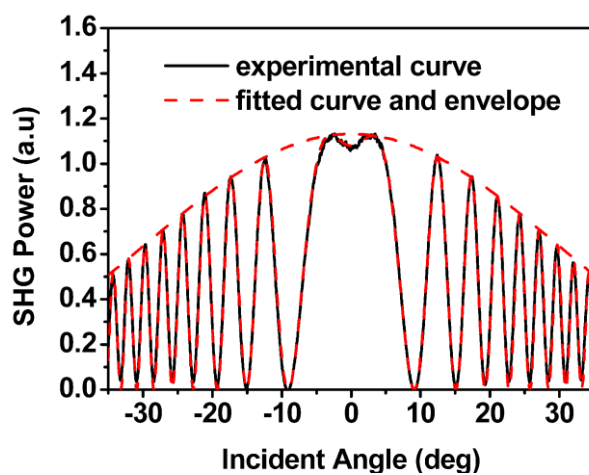


Figure S6. The type-I Maker fringes of d_{36} (KDP).

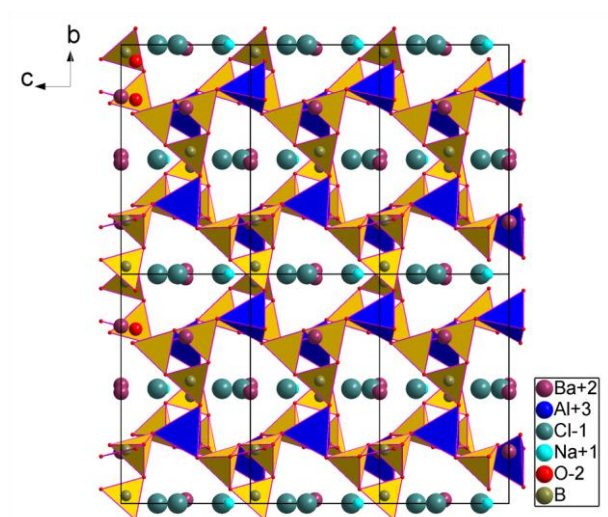


Figure S7. View of one-dimensional tunnels along *a* direction.

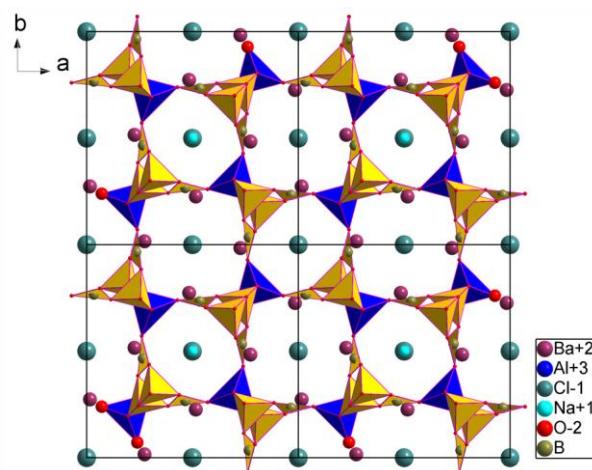


Figure S8. View of one-dimensional tunnels along *c* direction.

Table S1. Indexed XRD peaks for NBAC.

No.	2Theta	d-spacing	Int.	h	k	l
1	10.375	8.5192	1102752.59	1	1	0
2	14.693	6.024	1024199.57	0	2	0
3	14.92	5.9328	5760333.63	0	1	1
4	16.439	5.388	60952.34	1	2	0
5	16.643	5.3225	509385.59	1	1	1
6	20.837	4.2596	7112130.71	2	2	0
7	21	4.227	9722727.18	1	2	1
8	23.329	3.8099	1829.55	1	3	0
9	24.625	3.6123	336189.49	2	2	1
10	25.726	3.4601	15230635.49	0	3	1
11	26.125	3.4083	4791267.34	0	0	2
12	26.656	3.3415	399301.69	2	3	0
13	26.785	3.3257	750442.68	1	3	1
14	28.178	3.1644	94760.5	1	1	2
15	29.635	3.012	15140164.7	0	4	0
16	29.753	3.0004	626635.96	2	3	1
17	30.102	2.9664	947561.49	0	2	2
18	30.569	2.9221	336902.34	1	4	0
19	31.023	2.8804	850357.53	1	2	2
20	31.478	2.8397	2010763.22	3	3	0
21	33.229	2.694	461466	2	4	0
22	33.335	2.6857	1346722.64	1	4	1
23	33.65	2.6612	11616890.06	2	2	2
24	34.178	2.6214	847343.22	3	3	1
25	35.305	2.5402	1856589.63	1	3	2
26	35.811	2.5054	117807.32	2	4	1
27	37.287	2.4096	833.88	3	4	0
28	37.669	2.3861	740085.2	2	3	2
29	38.054	2.3628	753735.17	1	5	0
30	39.64	2.2718	321822.35	0	5	1
31	39.64	2.2718	5682027.43	3	4	1
32	39.912	2.257	5067825.34	0	4	2
33	40.279	2.2373	28341.24	2	5	0
34	40.363	2.2328	2263429.84	0	1	3
35	40.369	2.2325	1751384.97	1	5	1
36	40.637	2.2184	772785.34	1	4	2
37	41.081	2.1954	395316.77	1	1	3
38	41.351	2.1817	2416852.6	3	3	2
39	42.406	2.1298	2624000.03	4	4	0
40	42.492	2.1257	7112061.62	2	5	1
41	42.75	2.1135	597750.35	2	4	2

42	43.176	2.0936	3086892.64	1	2	3
43	43.778	2.0662	512578.96	3	5	0
44	44.534	2.0329	86844.21	4	4	1
45	45.116	2.008	58881.27	0	6	0
46	45.192	2.0048	108449.1	2	2	3
47	45.773	1.9807	508567.45	1	6	0
48	45.849	1.9776	2930065.73	0	3	3
49	45.854	1.9774	372485.81	3	5	1
50	46.096	1.9675	310480.06	3	4	2
51	46.498	1.9515	247324.58	1	3	3
52	46.743	1.9418	721806.31	1	5	2
53	47.703	1.905	485527.55	2	6	0
54	47.781	1.902	493918.87	1	6	1
55	48.333	1.8816	511341.25	4	5	0
56	48.406	1.8789	316510.46	2	3	3
57	48.643	1.8703	11507.36	2	5	2
58	49.651	1.8347	442967.07	2	6	1
59	50.263	1.8138	43645.66	4	5	1
60	50.49	1.8062	2047272.44	4	4	2
61	50.795	1.796	841556.6	3	6	0
62	50.865	1.7937	1319501.14	1	4	3
63	51.466	1.7742	171664.78	3	3	3
64	51.693	1.7669	84774.21	3	5	2
65	52.654	1.7369	42317.96	2	4	3
66	52.659	1.7367	6452.06	3	6	1
67	52.878	1.7301	144937.66	0	6	2
68	53.463	1.7125	448631.49	1	6	2
69	53.747	1.7041	725748.31	0	0	4
70	53.756	1.7038	162076.6	1	7	0
71	53.756	1.7038	289316.82	5	5	0
72	54.9	1.671	249472.17	1	1	4
73	54.91	1.6708	137130.11	4	6	0
74	54.981	1.6688	2897997.58	0	7	1
75	55.193	1.6628	3059296.29	2	6	2
76	55.48	1.6549	65409.65	2	7	0
77	55.546	1.6531	29152.52	0	5	3
78	55.546	1.6531	2229077.77	3	4	3
80	55.551	1.653	353229.05	5	5	1
79	55.551	1.653	264562.61	1	7	1
81	55.762	1.6472	436266.56	4	5	2
82	56.037	1.6398	28728.58	0	2	4
83	56.112	1.6378	396866.53	1	5	3
84	56.6	1.6248	212005.1	1	2	4
85	56.679	1.6227	84025.39	4	6	1

86	57.238	1.6082	49837.07	2	7	1
87	57.789	1.5942	1293702.87	2	5	3
88	57.999	1.5889	718784.84	3	6	2
89	58.268	1.5822	1165797.08	2	2	4
90	58.277	1.582	1259220.82	3	7	0
91	59.363	1.5556	93470.02	1	3	4
92	59.435	1.5539	114435.05	4	4	3
93	59.915	1.5426	687.15	5	6	0
94	59.982	1.541	252592.74	3	7	1
95	60.517	1.5287	92298.04	3	5	3
97	60.721	1.524	403316.87	5	5	2
96	60.721	1.524	1019895.81	1	7	2
98	60.983	1.5181	163226.63	2	3	4
99	61.526	1.506	302934.17	0	8	0
100	61.592	1.5045	992908.32	5	6	1
101	61.79	1.5002	49212.94	4	6	2
103	62.057	1.4944	16300.07	4	7	0
102	62.057	1.4944	212711.49	1	8	0
104	62.119	1.493	330511.07	1	6	3
105	62.32	1.4887	107151.31	2	7	2
106	62.578	1.4832	1517449.42	0	4	4
107	63.104	1.4721	20637.93	1	4	4
108	63.628	1.4612	338285.73	3	3	4
109	63.637	1.461	49686.58	2	8	0
110	63.697	1.4598	288344.25	2	6	3
112	63.702	1.4597	2280141.61	4	7	1
111	63.702	1.4597	60677.49	1	8	1
113	64.219	1.4492	15709.47	4	5	3
114	64.669	1.4402	16621.18	2	4	4
115	64.935	1.4349	1989326.77	3	7	2
116	65.259	1.4286	10218.05	2	8	1
117	65.71	1.4199	340.57	6	6	0
118	66.223	1.4101	20773.88	3	8	0
119	66.282	1.409	24423.07	3	6	3
120	66.476	1.4053	15263.34	5	6	2
121	66.734	1.4006	23516.23	5	7	0
122	67.234	1.3913	1051.85	3	4	4
123	67.306	1.39	464903.89	6	6	1
124	67.741	1.3822	885959.27	1	5	4
125	67.812	1.3809	183159.63	3	8	1
126	68	1.3775	148500.36	0	8	2
127	68.313	1.372	1167632.25	0	7	3
128	68.317	1.3719	33897.54	5	7	1
130	68.505	1.3686	33035.69	4	7	2

129	68.505	1.3686	328907.26	1	8	2
131	68.816	1.3632	285609.21	1	7	3
132	68.816	1.3632	235053.33	5	5	3
133	69.252	1.3556	7759.89	2	5	4
134	69.31	1.3547	174493.07	0	1	5
135	69.76	1.347	376176.86	4	8	0
136	69.81	1.3462	22934.82	1	1	5
137	69.818	1.346	44502.73	4	6	3
