Name and formula

Reference code: 00-043-0626

PDF index name: Zinc Indium Gallium Oxide

Empirical formula: GalnO₁₈Zn₁₅
Chemical formula: InGaO₃(ZnO)₁₅

Crystallographic parameters

Crystal system: Rhombohedral

Space group: R-3m Space group number: 166

a (Å): 3,2620 b (Å): 3,2620 c (Å): 135,2000 Alpha (˚): 90,0000 Beta (˚): 90,0000 Gamma (˚): 120,0000

Calculated density (g/cm^3): 5,81
Volume of cell (10^6 pm^3): 1245,88
Z: 3,00

RIR: -

Subfiles and Quality

Subfiles: Inorganic Quality: Star (S)

Comments

Color: Cream

General comments: The lattice constants are given in hexagonal system.

The X-ray powder diffraction was measured at room temperature.

Pattern submitted by the Japanese Committee on Powder Diffraction Data, Tokyo,

Japan.

Sample preparation: Prepared by heating a mixture of \ln_2O_3 : Ga_2O_3 : ZnO = 1:1:30 (in mole ratio) in a Pt-tube at

1350 C, for 9 days, air quenched.

References

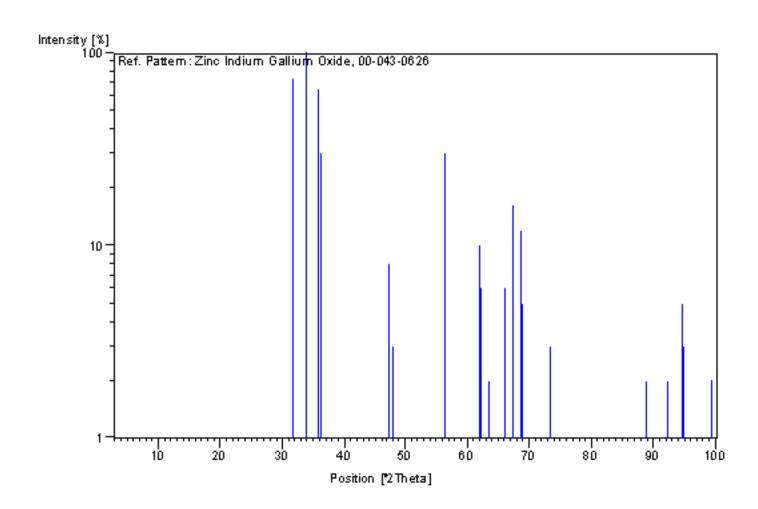
Primary reference: Nakamura, M. et al., J. Solid State Chem., 93, 298, (1991)
Contributed: Ishizawa, N., Japan., Private Communication, (1992)

<u>Peak list</u>

No.	h	k	1	d [A]	2Theta[deg] I [%]	
1	0	0	6	22,52200	3,920	1,0
2	0	0	45	3,00360	29,720	1,0
3	1	0	1	2,82470	31,650	73,0
4	0	0	48	2,81600	31,751	21,0

Date: 21.05.2024 Time: 15:23:34					File	: powder	User: Core2Duo
5	0	0	51	2,65060	33,789	100,0	
6	1	0	22	2,56660	34,930	1,0	
7	1	0	25	2,50420	35,830	65,0	
8	0	1	26	2,48210	36,160	30,0	
9	0	0	57	2,37140	37,910	1,0	
10	0	1	50	1,95340	46,449	1,0	
11	1	0	52	1,91300	47,490	8,0	
12	0	1	53	1,89310	48,020	3,0	
13	1	1	0	1,63120	56,358	30,0	
14	1	1	30	1,53370	60,298	1,0	
15	1	1	36	1,49610	61,978	10,0	
16	0	1	77	1,49110	62,209	6,0	
17	1	0	79	1,46340	63,522	2,0	
18	0	2	1	1,41260	66,091	6,0	
19	1	1	51	1,38920	67,351	16,0	
20	1	1	54	1,36660	68,619	12,0	
21	2	0	26	1,36330	68,808	5,0	
22	0	0	102	1,32520	71,080	1,0	
23	1	1	60	1,32120	71,328	1,0	
24	0	0	105	1,28730	73,509	3,0	
25	0	2	52	1,24120	76,721	1,0	
26	2	0	62	1,18550	81,048	1,0	
27	2	0	77	1,10060	88,837	2,0	
28	2	1	1	1,06780	92,339	2,0	
29	2	1	25	1,04760	94,665	5,0	
30	1	2	26	1,04600	94,855	3,0	
31	1	1	102	1,02850	97,000	1,0	
32	1	1	105	1,01050	99,334	2,0	

Stick Pattern



User: Core2Duo