



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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APPENDIX A

JOINT COMMITTEE ON POWDER DIFFRACTION

Name and formula

Reference code: 00-025-1328
PDF index name: Silver Indium Sulfide
Empirical formula: AgInS_2
Chemical formula: AgInS_2

Crystallographic parameters

Crystal system: Orthorhombic
Space group: Pna21
Space group number: 33
a: 7.0010
b: 8.2780
c: 6.6980
Alpha: 90.0000
Beta: 90.0000
Gamma: 90.0000
Volume of cell(10^6 pm^3): 388.18
Z: 4.00
RIR: -

Subfiles and Quality

Subfiles: Inorganic
Alloy, metal or intermetallic
Corrosion
Quality: Star (S)

Comments

General comments: High temperature, orthorhombic polymorph of AgInS_2 .
Single-crystal data taken.
For tetragonal low temperature polymorph, see PDF 25-1330

Melting point: 880 °C

References

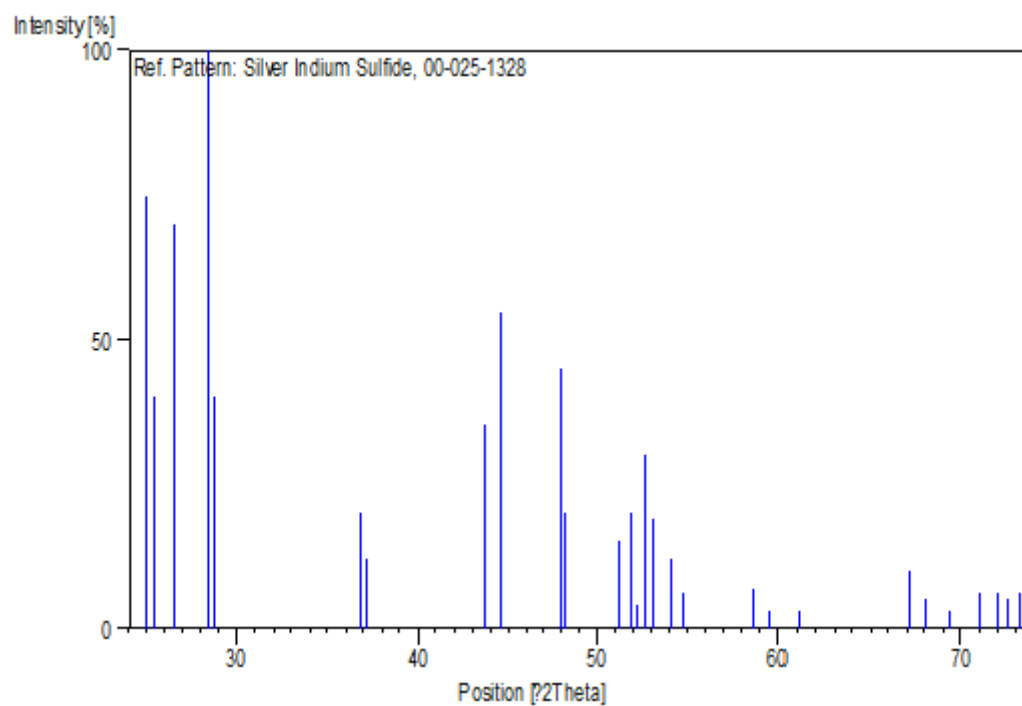
Primary reference: Roth et al., *Mater. Res. Bull.*, 8, 333, (1973)

Peak list

No.	hkl	d[Å]	2Theta [deg]	I [%]
1	120	3.56000	24.993	75.0
2	200	3.50000	25.428	40.0
3	002	3.35000	26.587	70.0
4	121	3.14200	28.383	100.0
5	201	3.10200	28.757	40.0
6	122	2.44000	36.806	20.0
7	202	2.42000	37.121	12.0
8	040	2.07000	43.694	35.0
9	320	2.03300	44.531	55.0
10	123	1.89200	48.050	45.0
11	203	1.88400	48.267	20.0
12	240	1.78100	51.254	15.0

13	042	1.76000	51.911	20.0
14	400	1.75000	52.230	4.0
15	322	1.73800	52.618	30.0
16	331	1.72200	53.145	19.0
17	401	1.69400	54.094	12.0
18	004	1.67600	54.723	6.0
19	332	1.57300	58.642	7.0
20	402	1.55100	59.557	3.0
21	124	1.51500	61.121	3.0
22	333	1.39300	67.143	10.0
23	403	1.37700	68.029	5.0
24	160	1.35400	69.348	3.0
25	520	1.32600	71.031	6.0
26	441	1.31100	71.969	6.0
27	521	1.30100	72.610	5.0
28	324	1.29200	73.198	6.0

Stick Pattern



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CURRICULUM VITAE

Author's Name	Miss Isara Phiwchai
Date/Year of Birth	February 4, 1991
Place of Birth	Chiang Mai Province, Thailand
Education	2006 Major Science-Mathematics, Suranareewittaya 2, Nakhonratchasima, Thailand 2008 Major Science-Mathematics, Rungseewittaya, Chiang Mai, Thailand 2013 Bachelor of Science, Chemistry, Maejo University
Scholarship	2010 Scholarship Annual 2010 of Maejo Alumni Association (MAA) 2011 Quality Youths Scholarship of The Year 2011, Foundation of The Scientific and Technological Council of Thailand (FSTT) 2012 Young Scientist and Technologist Programme (YSTP), National Science and Technology Development Agency (NSTDA) 2013 Science Achievement Scholarship of Thailand (SAST), Thailand's Office of the Higher Education Commission

