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Ferroelectrics and related substances

Subvolume B1: Inorganic substances other than oxides

SbSI family ... TAAP

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Subvolume B2: Inorganic substances other than oxides
 $(\text{NH}_4)_2\text{SO}_4$ family ... $\text{K}_3\text{BiCl}_6 \cdot 2\text{KCl} \cdot \text{KH}_3\text{F}_4$

- 39 $(\text{NH}_4)_2\text{SO}_4$ family [K. Deguchi, K. Hasebe, K. Gesi, T. Asahi]
- 40 NH_4HSO_4 family [T. Yagi]
- 41 NH_4LiSO_4 family [T. Yagi]
- 42 $(\text{NH}_4)_3\text{H}(\text{SO}_4)_2$ family [K. Gesi]
- 43 Langbeinite-type family [T. Hikita]
- 44 Lecontite ($\text{NaNH}_4\text{SO}_4 \cdot 2\text{H}_2\text{O}$) family [M. Komukae, T. Osaka]
- 45 Alum family [M. Komukae, T. Osaka]
- 46 GASH ($\text{C}(\text{NH}_2)_3\text{Al}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$) family [K. Gesi]
- 47 Colemanite ($\text{Ca}_2\text{B}_6\text{O}_{11} \cdot 5\text{H}_2\text{O}$) [M. Komukae, T. Osaka]
- 48 $\text{K}_4\text{Fe}(\text{CN})_6 \cdot 3\text{H}_2\text{O}$ family [M. Komukae, T. Osaka]
- 49 $\text{K}_3\text{BiCl}_6 \cdot 2\text{KCl} \cdot \text{KH}_3\text{F}_4$ [Y. Shiozaki]

M Miscellaneous crystals

- M15 SnTe group [Y. Akishige]
- M16 PbN_6 [E. Nakamura]
- M17 Sb_2S_3 [T. Yagi]
- M18 $\text{Sb}_5\text{O}_7\text{I}$ [T. Yagi]
- M19 H_2O [N. Nakatani]
- M20 KOH group [E. Nakamura]
- M21 KSCN [E. Nakamura]
- M22 $\text{Na}_3\text{Sc}_2(\text{PO}_4)_3$ [E. Nakamura]
- M23 $\text{H}_2(\text{UO}_2)_2(\text{AsO}_4)_2 \cdot 8\text{H}_2\text{O}$ [E. Nakamura]
- M24 $\text{Li}(\text{N}_2\text{H}_5)\text{SO}_4$ group [E. Nakamura]
- M25 $\text{N}(\text{CH}_3)_4\text{HSO}_4 \cdot \text{H}_2\text{O}$ [E. Nakamura]
- M26 $\text{Ag}_2\text{H}_3\text{IO}_6$ group [E. Nakamura]
- M27 $\text{TiNbWO}_6 \cdot n\text{H}_2\text{O}$ group [E. Nakamura]
- M28 $\text{NH}_4\text{PF}_6 \cdot \text{NH}_4\text{F}$ [E. Nakamura]

III Alphabetical index of substances

- IIIA Pure compounds
- IIIB Solid solutions

IF Survey of contained data

Each chapter of this volume corresponds to one family consisting of similar substances. This Subvolume B contains 30 families of inorganic substances other than oxides and thus 30 chapters, as listed in the table of contents. Each section in a chapter is devoted to describing properties of one substance (pure compound or solid solution). Table IF-1 shows how the data are presented in each section: A section is divided into 16 subsections and each subsection gives the data on special properties (e.g., dielectric properties). The information given in each section is surveyed by a table at the beginning of the section according to the order of subsections 1...16 of Table IF-1.

A detailed two-dimensional survey of contained data is made in Table IF-2 which gives all the substances appearing in this subvolume along the ordinate and properties along the abscissa.

Table IF-1. Arrangement of data for each substance

Subsection	Information
1	History and fundamental quantities.
a	History (discoverer, year of discovery).
b	Fundamental quantities (phases, state (F, A, P), crystal system, space group of each phase, transition temperatures, direction of spontaneous polarization, melting point, density, transparency and color, cleavage plane, deliquescence and efflorescence, phase diagram for solid solution).
2	Material preparation and crystal growth.
a	Method, solubility in fluxes or solvents.
b	Crystal forms, <i>a</i> , <i>b</i> , <i>c</i> axes, <i>X</i> , <i>Y</i> , <i>Z</i> axes.
3	Crystal structure.
a	Unit cell parameters.
b	Crystal structure (<i>Z</i> , table of positional and temperature parameters, interatomic distances and bond angles, figure of crystal structures, structural change associated with phase transitions).
4	Lattice distortions (thermal expansion, lattice deformation associated with spontaneous polarization).
5	Dielectric properties.
a	Dielectric constants (κ vs. <i>T</i> , Curie-Weiss law constants, κ vs. <i>p</i> , κ vs. two- or one-dimensional pressure, κ vs. frequency, phase diagram in regard to <i>p</i> and E_{bias}).
b	Nonlinear dielectric properties (effect of E_{bias} on κ ; values of ξ and ζ).
c	Spontaneous polarization and coercive field (or critical field for antiferroelectrics).
d	Pyroelectric and electrocaloric effect.
6	Thermal properties.
a	Heat capacity, transition heat, transition entropy.
b	Thermal conductivity.
7	Electromechanical properties.
a	Piezoelectricity.
b	Electrostriction.
c	Nonlinear electromechanical properties.

(continued)

Table IF-1 (continued)

Subsection	Information
8	Elastic properties.
a	Elastic compliances and stiffnesses (including data on acoustic surface wave).
b	Nonlinear elastic properties.
9	Optical properties.
a	Refractive indices, birefringence, reflection, absorption (infrared region, visible region, ultraviolet region).
b	Electrooptic effect.
c	Piezooptic effect (photoelastic effect).
d	Optical activity (rotatory power), Faraday effect.
e	Nonlinear optical properties.
10	Properties studied by light scattering.
a	Raman scattering.
b	Brillouin scattering and Rayleigh scattering. (Elastic constants are given in 8a).
11	Electrical conduction (conductivity, breakdown strength, thermoelectric effect, photoconductivity and photoemission, superconductivity, band structure).
12	Magnetic properties (magnetic susceptibility, spontaneous magnetization, magnetic structure, magnetoelectric effect).
13	Properties studied by magnetic resonance and Mössbauer effect.
a	NMR.
b	ESR and ENDOR.
c	Mössbauer effect.
14	Diffraction phenomena related with secondary structures and local structures.
a	Bragg reflections due to structural modulations.
b	Diffuse or inelastic scattering.
c	EXAFS.
15	Domains.
a	Domain structure.
b	Effects of electric field and mechanical stress.
16	Miscellanea (thin layer, surface layer, radiation damage, plasticity, dislocation, etchant, point defects, twin structure, stripe pattern, paraelectric resonance).

Table IF-2. Two-dimensional survey of contained data

This table indicates the pages where the required data for special properties and individual substances can be found. All the substances appearing in Subvolume III/36B1 are given along the ordinate and properties along the abscissa. More detailed information on the properties can be found in Table IF-1. Abbreviations in this table: [F]: ferroelectric. [(F)]: possibility of ferroelectricity. [A]: antiferroelectric. [(A)]: possibility of antiferroelectricity.

Subvolume III/36B1		Page	Fundamentals	Material preparation	Crystal structure	Lattice distortion	Dielectric properties	Thermal properties	Electromechanical	Elastic properties	Optical properties	Light scattering	Conduction	Magnetism	NMR, ESR	Local structures	Domains	Miscellanea
No.	Substance																	
20 SbSI family																		
20A Pure compounds																		
1	BiSCl	20A-1	•	•	•							•	•	•				
2	BiSeCl	20A-2	•		•								•					
3	SbSBr [F]	20A-3	•	•	•		•	•			•	•	•	•	•	•		
4	BiSBr [F]	20A-4	•	•	•		•					•	•					
5	SbSeBr	20A-5	•	•	•								•					
6	BiSeBr	20A-6	•	•	•								•	•				
7	SbSI [F]	20A-7	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
8	BiSI [F]	20A-8	•	•	•		•	•			•		•	•	•			
9	SbSeI	20A-9	•	•	•		•	•		•	•		•	•	•			
10	BiSeI	20A-10	•	•	•						•		•	•				
11	SbTeI	20A-11	•	•	•						•		•		•			
20B Solid solutions																		
1	SbSBr–SbSI	20B-1	•	•	•		•					•						
2	SbSI–SbOI	20B-2	•	•														
3	SbSI–AsSI	20B-3	•	•			•				•	•						
4	SbSI–BiSI	20B-4	•	•			•					•						
5	SbSI–SbSeI	20B-5	•		•	•	•				•		•					
21 TIS																		
21A Pure compound																		
1	TIS [F]	21A-1	•	•	•		•	•					•					
22 TlInS ₂ family																		
22A Pure compounds																		
1	TlGaS ₂	22A-1	•	•	•	•	•	•			•	•	•					
2	TlInS ₂ [F]	22A-2	•	•	•	•	•			•	•	•	•			•		
3	TlGaSe ₂ [F]	22A-3	•	•	•		•	•			•	•	•					

Subvolume III/36B1			Fundamentals	Material preparation	Crystal structure	Lattice distortion	Dielectric properties	Thermal properties	Electromechanical	Elastic properties	Optical properties	Light scattering	Conduction	Magnetism	NMR, ESR	Local structures	Domains	Miscellanea
No.	Substance	Page																
4	TlInSe ₂	22A-4	•		•							•						
5	TlSbSe ₂	22A-5					•											
22B Solid solutions																		
1	TlInS ₂ –TlFeSe ₂	22B-1					•											
2	TlInS ₂ –TlInSe ₂	22B-2					•				•		•					
3	TlGaSe ₂ –TlFeSe ₂	22B-3					•											
4	TlGaSe ₂ –AgGaSe ₂	22B-4				•												
5	TlInS ₂ –CuInS ₂	22B-5				•												
23 Ag₃AsS₃ family																		
23A Pure compounds																		
1	Ag ₃ AsS ₃ [F]	23A-1	•	•	•	•	•	•		•	•	•	•		•	•	•	•
2	Ag ₃ SbS ₃	23A-2	•	•	•		•		•	•	•	•	•		•			
23B Solid solution																		
1	Ag ₃ AsS ₃ –Ag ₃ SbS ₃	23B-1									•							
24 Sn₂P₂S₆ family																		
24A Pure compounds																		
1	Sn ₂ P ₂ S ₆ [F]	24A-1	•	•	•	•	•	•	•	•	•	•	•			•	•	•
2	Sn ₂ P ₂ Se ₆ [(F)]	24A-2	•	•	•	•	•	•		•	•	•			•	•		
24B Solid solutions																		
1	Sn ₂ P ₂ S ₆ –Pb ₂ P ₂ S ₆	24B-1	•		•		•					•			•			
2	Sn ₂ P ₂ Se ₆ –Pb ₂ P ₂ Se ₆	24B-2	•		•		•				•							
3	Sn ₂ P ₂ S ₆ –Sn ₂ P ₂ Se ₆	24B-3	•		•		•	•								•		
25 KNiCl₃ family																		
25A Pure compounds																		
1	KNiCl ₃ [F]	25A-1	•	•	•		•								•	•		

Subvolume III/36B1			Fundamentals	Material preparation	Crystal structure	Lattice distortion	Dielectric properties	Thermal properties	Electromechanical	Elastic properties	Optical properties	Light scattering	Conduction	Magnetism	NMR, ESR	Local structures	Domains	Miscellanea
No.	Substance	Page																
2	RbFeBr ₃ [F]	25A-2	•	•	•		•											
3	RbMnBr ₃ [F]	25A-3	•	•	•		•				•							
26 BaMnF₄ family																		
26A Pure compounds																		
1	BaMgF ₄ [F]	26A-1	•	•	•	•	•		•	•	•				•			
2	BaMnF ₄ [(F)]	26A-2	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
3	BaFeF ₄ [(F)]	26A-3	•	•	•		•						•	•				
4	BaCoF ₄ [F]	26A-4	•	•	•		•							•				
5	BaNiF ₄ [F]	26A-5	•	•	•		•							•	•			
6	BaZnF ₄ [F]	26A-6	•	•	•		•				•	•		•				
27 HCl family																		
27A Pure compounds																		
1	HCl [F]	27A-1	•	•	•	•	•	•		•	•	•			•	•		
2	HBr [F]	27A-2	•	•	•	•	•	•		•	•	•			•	•		
28 NaNO₂ family																		
28A Pure compounds																		
1	NaNO ₂ [F]	28A-1	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
2	AgNa(NO ₂) ₂ [F]	28A-2	•	•	•	•	•	•	•	•	•	•	•		•		•	
28B Solid solutions																		
1	NaNO ₂ –AgNO ₂	28B-1	•															
2	NaNO ₂ –NaNO ₃	28B-2	•				•											
29 CsCd(NO₂)₃ family																		
29A Pure compounds																		
1	RbCd(NO ₂) ₃ [(F)]	29A-1	•	•	•		•										•	
2	CsCd(NO ₂) ₃ [F]	29A-2	•	•	•	•	•			•	•						•	

Subvolume III/36B1			Fundamentals	Material preparation	Crystal structure	Lattice distortion	Dielectric properties	Thermal properties	Electromechanical	Elastic properties	Optical properties	Light scattering	Conduction	Magnetism	NMR, ESR	Local structures	Domains	Miscellanea
No.	Substance	Page																
30 KNO₃ family																		
30A Pure compounds																		
1	NaNO ₃ [F]	30A-1	•	•	•	•	•	•		•	•	•			•	•		
2	KNO ₃ [F]	30A-2	•	•	•	•	•	•		•	•	•	•		•	•	•	•
3	RbNO ₃ [(A)]	30A-3	•	•	•	•	•	•			•	•	•			•		
4	CsNO ₃	30A-4	•	•	•		•	•	•	•	•	•	•					
30B Solid solutions																		
1	KNO ₃ –NH ₄ NO ₃	30B-1	•		•		•					•						
2	KNO ₃ –RbNO ₃	30B-2	•		•	•	•											
3	KNO ₃ –KNO ₂	30B-3	•		•													
4	KNO ₃ –KI	30B-4					•											
5	RbNO ₃ –CsNO ₃	30B-5	•		•	•	•											
31 LiH₃(SeO₃)₂ family																		
31A Pure compounds																		
1	LiH ₃ (SeO ₃) ₂ [F]	31A-1	•	•	•	•	•		•	•	•	•	•		•		•	
2	NaH ₃ (SeO ₃) ₂ [F]	31A-2	•	•	•	•	•	•	•	•	•	•	•		•	•	•	
3	KH ₃ (SeO ₃) ₂	31A-3	•	•	•	•	•	•		•	•	•			•			
4	RbH ₃ (SeO ₃) ₂ [F]	31A-4	•	•	•	•	•			•	•	•			•	•	•	
5	CsH ₃ (SeO ₃) ₂ [(A)]	31A-5	•	•	•	•	•	•		•	•				•			
6	TH ₃ (SeO ₃) ₂ [F]	31A-6	•		•		•			•								
7	NH ₄ H ₃ (SeO ₃) ₂	31A-7	•	•	•		•				•				•			
32 KIO₃ family																		
32A Pure compounds																		
1	KIO ₃ [F]	32A-1	•	•	•	•	•	•	•	•	•	•	•		•			•
2	NH ₄ IO ₃ [F]	32A-2	•	•	•	•	•	•	•	•	•	•			•		•	
3	KIO ₃ ·HIO ₃ [(F)]	32A-3	•	•	•		•	•			•				•			

Subvolume III/36B1			Fundamentals	Material preparation	Crystal structure	Lattice distortion	Dielectric properties	Thermal properties	Electromechanical	Elastic properties	Optical properties	Light scattering	Conduction	Magnetism	NMR, ESR	Local structures	Domains	Miscellanea
No.	Substance	Page																
33 KDP (KH₂PO₄) family																		
33A Pure compounds																		
1	KH ₂ PO ₄ [F]	33A-1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
2	RbH ₂ PO ₄ [F]	33A-2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
3	CsH ₂ PO ₄ [F]	33A-3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4	TiH ₂ PO ₄ [D: A]	33A-4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
5	NH ₄ H ₂ PO ₄ [(A)]	33A-5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
6	(CH ₃) ₂ NH ₂ H ₂ PO ₄ [F]	33A-6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
7	KH ₂ AsO ₄ [F]	33A-7	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
8	RbH ₂ AsO ₄ [F]	33A-8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
9	CsH ₂ AsO ₄ [F]	33A-9	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
10	TiH ₂ AsO ₄ [(A)]	33A-10	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
11	NH ₄ H ₂ AsO ₄ [(A)]	33A-11	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
12	(CH ₃) ₂ NH ₂ H ₂ AsO ₄ [F]	33A-12	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
33B Solid solutions																		
1	KH ₂ PO ₄ –NH ₄ H ₂ PO ₄	33B-1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
2	KH ₂ PO ₄ –KH ₂ AsO ₄	33B-2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
3	RbH ₂ PO ₄ –CsH ₂ PO ₄	33B-3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4	RbH ₂ PO ₄ –TiH ₂ PO ₄	33B-4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
5	RbH ₂ PO ₄ –NH ₄ H ₂ PO ₄ (RADP)	33B-5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
6	CsH ₂ PO ₄ –TiH ₂ PO ₄	33B-6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
7	TiH ₂ PO ₄ –NH ₄ H ₂ PO ₄	33B-7	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
8	NH ₄ H ₂ PO ₄ –NH ₄ H ₂ AsO ₄	33B-8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
9	KH ₂ AsO ₄ –NH ₄ H ₂ AsO ₄	33B-9	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
10	RbH ₂ AsO ₄ –NH ₄ H ₂ AsO ₄ (RADA)	33B-10	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
11	CsH ₂ AsO ₄ –NH ₄ H ₂ AsO ₄	33B-11	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
12	TiH ₂ AsO ₄ –NH ₄ H ₂ AsO ₄	33B-12	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
13	Rb _{1-x} (NH ₄) _x H ₂ P _{1-y} As _y O ₄ (RADPA)	33B-13	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Subvolume III/36B1			Fundamentals	Material preparation	Crystal structure	Lattice distortion	Dielectric properties	Thermal properties	Electromechanical	Elastic properties	Optical properties	Light scattering	Conduction	Magnetism	NMR, ESR	Local structures	Domains	Miscellanea
No.	Substance	Page																
34 PbHPO₄ family																		
34A Pure compounds																		
1	PbHPO ₄ [F]	34A-1	•	•	•	•	•	•		•	•	•		•	•	•	•	
2	PbHAsO ₄ [F]	34A-2	•	•	•		•				•	•			•			
35 KTiOPO₄ (KTP) family																		
35A Pure compounds																		
1	NaSbOSiO ₄ [(F)]	35A-1	•	•	•	•		•			•		•					
2	KSbOSiO ₄ [(F)]	35A-2	•	•	•	•	•	•			•		•					
3	AgSbOSiO ₄ [(F)]	35A-3	•	•	•						•							
4	NH ₄ TiOPO ₄	35A-4	•	•	•						•							•
5	NaTiOPO ₄	35A-5	•												•			
6	KTiOPO ₄ [F]	35A-6	•	•	•	•	•	•	•	•	•	•	•		•		•	•
7	KVOPO ₄	35A-7	•	•	•						•			•				
8	KGeOPO ₄	35A-8	•	•	•	•	•			•	•							
9	RbTiOPO ₄ [(F)]	35A-9	•	•	•		•		•	•	•	•	•		•		•	•
10	AgTiOPO ₄	35A-10	•	•	•						•							
11	KSnOPO ₄ [(F)]	35A-11	•	•	•		•				•		•					
12	RbSnOPO ₄	35A-12	•	•							•							
13	TiTiOPO ₄ [(F)]	35A-13	•	•	•		•			•	•	•						
14	NaSbOGeO ₄	35A-14	•	•	•						•							
15	KSbOGeO ₄ [(F)]	35A-15	•	•	•	•	•	•			•							
16	RbSbOGeO ₄ [(F)]	35A-16	•	•	•		•	•			•		•					
17	KTaOGeO ₄ [(F)]	35A-17	•	•	•		•				•							
18	AgSbOGeO ₄ [(F)]	35A-18	•	•	•						•							
19	TlSbOGeO ₄ [(F)]	35A-19	•	•	•	•					•							
20	KTiOAsO ₄ [(F)]	35A-20	•	•	•	•	•				•	•	•					•
21	RbTiOAsO ₄ [(F)]	35A-21	•	•	•						•		•					
22	CsTiOAsO ₄ [F]	35A-22	•	•	•		•		•		•		•					
23	TiTiOAsO ₄	35A-23	•	•	•						•							

Subvolume III/36B1		Page	Fundamentals	Material preparation	Crystal structure	Lattice distortion	Dielectric properties	Thermal properties	Electromechanical	Elastic properties	Optical properties	Light scattering	Conduction	Magnetism	NMR, ESR	Local structures	Domains	Miscellanea
No.	Substance																	
35B Solid solutions																		
1	(A,B)(C,D)OPO ₄ (A, B = H, NH ₄ , Na, K, Rb, Ag, Cs, Tl; C, D = Ti, V, Nb)	35B-1	•	•	•	•	•		•	•	•		•		•			•
2	(A,B)TiOAsO ₄ (A, B = K, Rb, Cs)	35B-2			•							•						
3	K(A,B)OGeO ₄ (A, B = Ti, Nb, Sb, Ta)	35B-3	•		•						•							
4	K(A,B)O(M,M')O ₄ (A, B = Ti, Nb, Sb, Ta; M, M' = P, Si, Ge, As)	35B-4	•	•	•						•		•					•
5	KGaPO ₄ F _{1-x} (OH) _x	35B-5	•	•	•						•							
36 CsCoPO ₄ family																		
36A Pure compounds																		
1	CsCoPO ₄ [F]	36A-1	•	•	•		•											
2	NaSrPO ₄ [F]	36A-2	•	•			•											
3	NaCdPO ₄ [F]	36A-3	•	•			•											
4	NaPbPO ₄ [F]	36A-4	•	•			•											
5	TlBePO ₄ [(F)]	36A-5	•		•	•	•	•										
37 NaTh ₂ (PO ₄) ₃ family																		
37A Pure compounds																		
1	NaTh ₂ (PO ₄) ₃ [F]	37A-1	•	•	•	•	•		•		•		•					
2	NaU ₂ (PO ₄) ₃ [F]	37A-2	•	•	•		•											
37B Solid solutions																		
1	NaTh ₂ (PO ₄) ₃ –NaTh ₂ (AsO ₄) ₃	37B-1					•											
2	NaTh ₂ (PO ₄) ₃ –NaCe ₂ (PO ₄) ₃	37B-2					•											
38 Te(OH) ₆ ·2NH ₄ H ₂ PO ₄ ·(NH ₄) ₂ HPO ₄																		
38A Pure compound																		
1	Te(OH) ₆ ·2NH ₄ H ₂ PO ₄ ·(NH ₄) ₂ HPO ₄ [F]	38A-1	•	•	•	•	•	•		•	•	•	•		•		•	•

Inorganic substances other than oxides. SbSI
family...TAAP

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