

Index of substances for Volume III/27B7

The substances are arranged alphabetically according to their "element system", i.e. the system of their alphabetically ordered elements, without consideration of the number of each element

Examples: $U_3(P_{1-x}As_x)_4$ is listed under As-P -U
 β - USe_2 - UTe_2 under Se-Te-U
 Th_3X_4 (X = P, As, Sb) under Th-X
 $(R, U)_3Y_4$ (R = La, Ce, Pr, Nd; Y = Se, Te) under R -U -Y
 γ - Cf_2Se_3 under Cf-Se

Within one "element system", the compounds are arranged firstly alphabetically according to the chemical formula as given in the text/tables/figures, secondly according to the increasing number of the first (second, third, ..) atom of the chemical formula.

Example for the arrangement of substances within a special "element system":

System	Cm-Te	$CmTe_{2-x}$
		$CmTe_2$
		$CmTe_3$
		Cm_2Te_3
	
		Cm_3Te_4

In doubt the reader is recommended to check all compounds belonging to the respective "element system".

The chemical formulae of the substances are generally given as listed in the respective text, tables and figures (second column).

In some cases more general formulations were used for groups of substances like e.g. MR_2S_5 , AnY_2 , U_3X_4 . These formulations were also considered in the Index (under the systems M -R -S, An-Y or U -X), and the meaning of the M, R, An, Y and X was added where possible.

Column 3 gives the page number on which data of the individual substances can be found.

Element system	Chemical formula	Page
Ac-S	$\gamma\text{-Ac}_2\text{S}_3$	33, 277
Am-S	AmS_{2-x}	2, 44
	$\text{AmS}_{1.9}$	281
	$\alpha\text{-Am}_2\text{S}_3$	2, 34, 278
	$\beta\text{-Am}_2\text{S}_3$	2, 34, 278
	$\gamma\text{-Am}_2\text{S}_3$	2, 34, 277
	$\eta\text{-Am}_2\text{S}_3$	2
	Am_3S_4	2, 31, 276
Am-Sb	AmSb	153
	AmSb_2	2, 5, 12, 42, 281
	Am_4Sb_3	2, 4, 19, 276
Am-Se	AmSe_{2-x}	2, 44
	$\text{AmSe}_{1.8}$	281
	$\gamma\text{-Am}_2\text{Se}_3$	2, 34, 277
	$\eta\text{-Am}_2\text{Se}_3$	2, 34, 278
	Am_3Se_4	2, 31, 153, 276
Am-Te	AmTe_{2-x}	2
	$\text{AmTe}_{1.7}$	6
	AmTe_2	45, 281
	AmTe_3	2, 47, 282
	$\gamma\text{-Am}_2\text{Te}_3$	2, 35, 277
	$\eta\text{-Am}_2\text{Te}_3$	2, 35, 278
	Am_3Te_4	2, 32, 277
	An_2S_3 (An = Np...Cf)	6
An-Sb	AnSb_2 (An = actinide)	5
An-Se	An_2Se_3 (An = Np...Cf)	6
An-Te	AnTe_{2-x} (An = actinide)	6
	AnTe_2 (An = actinide)	6
	An_2Te_3 (An = Np...Cf)	6
	AnX_2 (An = actinide; X = pnictogen)	1, 5
	AnX_2 (An = Th, Pa, U, Np, Pu, Am; X = P, As, Sb, Bi)	2
An-X	An_2X_3 (An = U; X = N)	2
	An_3X_4 (An = actinide; X = pnictogen)	1
	An_3X_4 (An = Th, Pa, U, Np; X = pnictogen)	2
	An_3X_4 (An = Th, Pa, U, (Np); X = P, As)	4
	An_4X_3 (An = actinide; X = pnictogen)	1
	An_4X_3 (An = Pu, Am; X = Sb)	2
	An_5X_3 (An = actinide; X = pnictogen)	1
	An_5X_3 (An = Th; X = Bi)	2
	An_5X_4 (An = actinide; X = pnictogen)	1
	An_5X_4 (An = U; X = Sb)	2
	$\text{An}_x(\text{X}, \text{Y})_y$ (An = actinides; X = N, P, As, Sb, Bi; Y = S, Se, Te)	1
	An-Y (An = U, Np, Pu, Am; Y = chalcogen)	48
	AnY_{2-x} (An = actinide; Y = chalcogen)	6
	AnY_2 (An = actinide; Y = chalcogen)	1
	AnY_2 (An = Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf; Y = S, Se, Te)	2, 5
	AnY_3 (An = actinide; Y = chalcogen)	1, 5

Element system	Chemical formula	Page
An-Y (cont.)	AnY ₃ (An = U, Np, Pu, Am, Cm, Bk, Cf; Y = S, Se, Te)	2
	AnY ₃ (An = actinide; Y = chalcogen)	12
	AnY ₅ (An = U, Y = Te)	2
	An ₂ Y ₃ (An = actinide; Y = chalcogen)	1, 6
	An ₂ Y ₃ (An = Th, U, Np, Pu, Am, Cm, Bk, Cf; Y = S, Se, Te)	2
	An ₂ Y ₅ (An = actinide; Y = chalcogen)	1
	An ₂ Y ₅ (An = Th, U, Np; Y = S, Se)	2, 5
	An ₃ Y ₄ (An = actinide; Y = chalcogen)	1, 5, 6
	An ₃ Y ₄ (An = U, Np, Pu, Am, Cm, Bk; Y = S, Se, Te)	2
	An ₃ Y ₅ (An = actinide; Y = chalcogen)	1
	An ₃ Y ₅ (An = U, Np; Y = S, Se, Te)	2
	An ₃ Y ₅ (An = U, Np; Y = chalcogen)	6
	An ₇ Y ₁₂ (An = actinide; Y = chalcogen)	1
	An ₇ Y ₁₂ (An = Th, U; Y = S, Se, Te)	2
	An ₇ Y ₁₂ (An = Th, U; Y = chalcogen)	7
As-Np	NpAs ₂	2, 4, 5, 7, 12, 40, 209-213, 215, 216, 280, 283
	Np ₃ As ₄	2, 4, 7, 28, 141, 142, 276, 288
As-P -U	UPAs	186
	U(P _{1-x} As _x) ₂	39, 208
	UP _{1.7} As _{0.3}	39, 209, 283
	UP _{1.8} As _{0.2}	39, 209
	UP ₂ -UAs ₂	186
	U ₃ (P _{1-x} As _x) ₄	28, 140, 141
	U ₃ P ₄ -U ₃ As ₄	73
As-Pa	PaAs ₂	2, 3, 5, 10, 38, 200, 279
	Pa ₃ As ₄	2, 3, 25, 276
As-S -U	UAsS	5
As-Se-U	U(As _{1-x} Se _x) ₂	39
As-Th	ThAs ₂	38, 279
	α-ThAs ₂	2, 38, 279
	β-ThAs ₂	2
	Th ₃ As ₄	2, 8, 24, 25, 53, 55, 56, 59, 112-117, 128, 139, 140, 276
As-Th-U	(U _{1-x} Th _x) ₃ As ₄	28, 139, 140
As-U	UAs ₂	2, 4, 5, 10, 11, 38, 39, 183-185, 187, 189-192, 201-208, 279, 283, 285- 288
	U ₃ As ₄	2, 4, 8-11, 25-28, 61, 64, 70-75, 81-84, 86, 87, 89, 92, 94, 107, 110, 111, 113, 117-138, 141, 276, 283, 285, 287
Bi-Sb-U	USbBi	11

Element system	Chemical formula	Page
Bi-Th	Th-Bi	48, 274
	ThBi ₂	2, 42, 279
	Th ₃ Bi ₄	2, 30, 276
	Th ₅ Bi ₃	2, 47, 278
Bi-U	U-Bi	48
	UBi ₂	2, 4, 10, 42, 184, 185, 187, 189, 190, 197, 205, 207, 222, 228-231, 279, 284-286, 288
		2, 4, 8, 9, 30, 61, 62, 70, 73, 74, 144, 276, 283, 285, 287
	U ₃ Bi ₄	
Bk-S	BkS _{2-x}	2
	BkS ₂	44, 281
	α -Bk ₂ S ₃	2, 34, 278
	γ -Bk ₂ S ₃	2, 34, 277
Bk-Se	BkSe _{2-x}	2
	BkSe ₂	44, 281
	γ -Bk ₂ Se ₃	2, 34, 277
	η -Bk ₂ Se ₃	2, 34, 278
Bk-Te	Bk ₃ Se ₄	2
	BkTe _{2-x}	2
	BkTe ₂	45, 281
	BkTe ₃	2, 47, 282
	Bk ₂ Te ₃	6
	ε -Bk ₂ Te ₃	2, 278
	η -Bk ₂ Te ₃	35
C -Pa	PaC	200
Cf-S	CfS _{2-x}	2
	CfS ₂	44, 281
	γ -Cf ₂ S ₃	2, 34, 277
Cf-Se	CfSe _{2-x}	2
	CfSe ₂	44, 281
	γ -Cf ₂ Se ₃	2, 34, 277
Cf-Te	CfTe _{2-x}	2
	CfTe ₂	45, 281
	CfTe ₃	2, 5
Cm-S	CmS _{2-x}	2
	CmS ₂	44, 281
	α -Cm ₂ S ₃	2, 34, 278
	γ -Cm ₂ S ₃	2, 34, 277
Cm-Se	η -Cm ₂ S ₃	2
	CmSe _{2-x}	2
	CmSe ₂	44, 281
	Cm ₂ Se ₃	2
Cm-Te	γ -Cm ₂ Se ₃	34, 277
	CmTe _{2-x}	2
	CmTe ₂	45, 281
	CmTe ₃	2, 47, 282
	Cm ₂ Te ₃	2

Element system	Chemical formula	Page
Cm-Te (cont.)	$\gamma\text{-Cm}_2\text{Te}_3$	35, 277
	$\eta\text{-Cm}_2\text{Te}_3$	35, 278
	Cm_3Te_4	2
M -R -S	MR_2S_5 (M = U, Zr, Hf; R = rare earth element)	169
N -O -Th	Th-N-O	48
N -Th	Th-N	48
	$\text{ThN}_{1.33}$	3
	Th_3N_4	3, 8, 19, 52, 281
	$\alpha\text{-Th}_3\text{N}_4$	2, 281
	$\beta\text{-Th}_3\text{N}_4$	2, 281
	U-N	48, 273, 274
N -U	UN	154
	$\text{UN}_{1.45}$	5
	$\text{UN}_{1.48}$	273
	$\text{UN}_{1.54-1.75}$	274
	$\text{UN}_{1.55(2)}$	156
	$\text{UN}_{1.59}$	159
	$\text{UN}_{1.73}$	159
	$\text{UN}_{1.74(3)}$	156
	$\text{UN}_{1.75}$	3, 5
	$\text{UN}_{1.86}$	3, 5
	UN_{2-x}	2
	UN_2	3, 155, 159
	$\beta\text{-U}_2\text{N}_{3-y}$	273
	U_2N_3	154
	$\beta\text{-U}_2\text{N}_3$	2, 5, 33, 160, 161, 273, 274, 277
	U_2N_{3+x}	1, 3, 33, 273
	$\alpha\text{-U}_2\text{N}_{3+x}$	2, 32, 33, 154-159, 273, 274, 277
	$\text{U}_2\text{N}_{3.1}$	288
	$\alpha\text{-U}_2\text{N}_3$	33, 154, 274
Np-P	Np_3P_4	2, 24, 276
Np-S	$\beta\text{-NpS}_{2-x}$	2
	NpS_2	6
	$\beta\text{-NpS}_2$	43, 240, 280, 285
	NpS_3	2, 7, 46, 258, 282, 285
	$\alpha\text{-Np}_2\text{S}_3$	2, 33, 161, 278, 285
	$\beta\text{-Np}_2\text{S}_3$	2, 33, 278
	$\gamma\text{-Np}_2\text{S}_3$	2, 33, 277
	$\eta\text{-Np}_2\text{S}_3$	2, 33, 278
	Np_2S_5	2, 45, 282
	Np_3S_4	2, 30, 276
	Np_3S_5	2, 6, 36, 173, 278, 285
	NpSb_2	2, 5, 12, 41, 227, 228, 280, 284
	Np_3Sb_4	2, 30, 276
Np-Se	NpSe_{2-x}	2
	NpSe_3	2, 46, 260, 282, 284, 285
	$\gamma\text{-Np}_2\text{Se}_3$	2, 34, 162, 277, 285

Element system	Chemical formula	Page
Np-Se (cont.)	$\eta\text{-Np}_2\text{Se}_3$	2
	Np_2Se_5	2, 45, 251, 282, 284, 285
	Np_3Se_4	2, 31, 276
	Np_3Se_5	2, 6, 36, 175, 176, 278, 283, 285
Np-Te	NpTe_{2-x}	2, 7, 45, 250
	$\text{NpTe}_{1.8}$	250, 280, 284
	NpTe_2	45, 250, 280, 284
	NpTe_3	2, 5, 47, 268, 270, 282, 284, 285
	$\gamma\text{-Np}_2\text{Te}_3$	2
	$\eta\text{-Np}_2\text{Te}_3$	2, 35, 278
	Np_3Te_4	2, 32, 276
O-U	UO_2	33
O-U-Y	UOY (Y = S, Se, Te)	11
P-Pa	PaP_2	2, 37, 279
	Pa_3P_4	2, 20, 276
P-Th	$\alpha\text{-ThP}_2$	2, 37, 279
	ThP_7	48, 282
	Th_2P_{11}	48, 282
	Th_3P_4	2, 4, 8, 9, 19, 20, 53-60, 102, 112-114, 276
P-Th-U	$(\text{U}_{1-x}\text{Th}_x)_3\text{P}_4$	24, 111, 112
P-U	UP_2	4, 5, 10, 11, 37, 38, 183, 185, 187, 189-200, 203, 205, 208, 209, 283, 285-287
	$\alpha\text{-UP}_2$	2, 279, 288,
	$\beta\text{-UP}_2$	2, 279, 288
	U_3P_4	2, 4, 8-10, 21-24, 57-59, 61, 64, 65, 70-84, 86-89, 91-112, 127, 129, 131, 137, 138, 141, 194, 276, 283, 285, 287, 288
Pa-S	PaS_2	2, 6, 12, 42, 279
Pa-Sb	PaSb_2	2, 5, 10, 40, 200, 279
	Pa_3Sb_4	2, 3, 28, 276
Pa-Se	PaSe_2	6
	$\gamma\text{-PaSe}_2$	2, 44, 279
Pa-X	PaX_2 (X = As, Sb)	200
Pu-S	PuS_{2-x}	2, 44
	$\text{PuS}_{1.76}$	280
	$\text{PuS}_{1.9}$	6, 280
	PuS_2	6, 44, 148, 280
	$\alpha\text{-Pu}_2\text{S}_3$	2, 34, 148, 161, 278
	$\beta\text{-Pu}_2\text{S}_3$	2, 34, 278
	$\gamma\text{-Pu}_2\text{S}_3$	2, 34, 277
	$\eta\text{-Pu}_2\text{S}_3$	2
	Pu_3S_4	2, 30, 31, 148, 149, 276
Pu-S-Th	ThPu_2S_5	6

Element system	Chemical formula	Page
Pu-Sb	PuSb ₂	2, 5, 12, 42, 228, 280, 284
	Pu ₄ Sb ₃	2, 4, 19, 276
Pu-Se	PuSe _{2-x}	2, 44
	PuSe _{1.8}	280
	PuSe _{1.9}	280
	PuSe _{1.987}	280
	γ-Pu ₂ Se ₃	2, 34, 277
	η-Pu ₂ Se ₃	2, 34, 278
	Pu ₃ Se ₄	2, 31, 276
Pu-Te	PuTe _{2-x}	2, 45
	PuTe _{1.81}	280
	PuTe ₂	281
	PuTe ₃	2, 47, 270, 282
	γ-Pu ₂ Te ₃	2, 35, 277
	η-Pu ₂ Te ₃	2, 35, 278
	Pu ₃ Te ₄	2
R-U -Y	(R,U) ₃ Y ₄ (R = La, Ce, Pr, Nd, Y = Se, Te)	152
S-Th	ThS ₂	6, 42, 231, 279
	β-ThS ₂	2
	η-Th ₂ S ₃	2, 33, 277
	Th ₂ S ₅	2, 45, 251, 282
	Th ₇ S ₁₂	2, 36, 179, 281
S-Th-U	ThU ₂ S ₅	172
S-U	US	235
	US _{2-x}	233, 234
	α-US _{2-x}	43, 171, 236
	US _{1.6}	233
	US _{1.80}	6
	α-US _{1.82}	232, 279
	α-US _{1.9}	233-235
	US _{1.93}	6
	US ₂	4, 6, 234
	α-US ₂	2, 12, 43, 233-235, 279
	β-US ₂	2, 12, 43, 170, 233, 238-240, 279, 284
	γ-US ₂	2, 43, 241, 242, 279, 284
	US ₃	2, 12, 46, 235, 255-257, 282, 284, 289
	U ₂ S ₃	6, 164, 165
	η-U ₂ S ₃	2, 33, 165, 277
	U ₂ S ₅	2, 45, 250, 282, 284
	U ₃ S ₅	2, 6, 35, 36, 169, 170, 172, 173, 175, 233, 278, 283
Sb-Th	ThSb ₂	2, 40, 279
	Th ₃ Sb ₄	2, 8, 28, 53, 143, 276
Sb-U	U-Sb	48

Element system	Chemical formula	Page
Sb-U (cont.)	USb ₂	2, 4, 10, 11, 40, 41, 183-185, 187, 189-192, 194, 200, 202-205, 207, 217, 218, 220-226, 279, 283, 285-288
	U ₃ Sb ₄	2, 4, 8, 9, 28-30, 61, 64, 66, 70, 72-75, 92, 127, 138, 143-148, 194, 276, 283, 285, 287
	U ₅ Sb ₄	2, 4, 19, 49-52, 281, 283
Se-Te-U	USe _{2-x} Te _x	12, 45, 249
Se-Th	β-USe ₂ – UTe ₂	286
	Th-Se	48
	ThSe ₂	2, 6, 44, 279
	ThSe ₃	46, 282
	η-Th ₂ Se ₃	2, 34, 277
	Th ₂ Se ₅	2, 45, 251, 282
Se-U	Th ₇ Se ₁₂	2, 36, 281
	USe _{1.80}	6
	α-USe _{2-x}	44
	α-USe _{1.82}	279
	α-USe _{1.88}	280
	USe ₂	4, 6, 234
	α-USe ₂	12, 44, 233, 236-238, 280, 284
	β-USe ₂	12, 44, 165, 236-238, 241, 280, 284, 286
	γ-USe ₂	44, 241, 243, 280, 284
	USe ₃	2, 4, 12, 46, 259-261, 282, 284, 289
	U ₂ Se ₃	164, 165
	η-U ₂ Se ₃	2, 34, 165, 166, 278, 283
	U ₂ Se ₅	2
	U ₃ Se ₄	2, 31, 74, 150-153, 276, 285
	U ₃ Se ₅	2, 6, 36, 170, 174, 175, 278, 283
Te-Th	U ₇ Se ₁₂	2, 36, 282
	ThTe ₂	2, 45
	ThTe ₃	2, 5, 46, 282
	Th ₂ Te ₃	2, 7
	Th ₇ Te ₁₂	36, 180, 281
Te-U	U-Te	48, 275
	U _{0.9} Te ₃	268
	UTe _{2-x}	12, 280
	UTe ₂	2, 4, 45, 244-246, 248, 249, 280, 284
	UTe ₃	4, 5, 47, 271, 284, 289
	α-UTe ₃	2, 12, 47, 262, 264-267, 282, 284

Element system	Chemical formula	Page
Te- U (cont.)	β -UTe ₃	2, 12, 47, 262, 268, 269, 282, 284
	UTe _{3.38}	5, 47, 270, 271, 282
	UTe ₅	1, 2, 5, 47, 270-272, 282, 284
	U ₂ Te _{3-x}	168, 286
	γ -U ₂ Te _{3-x}	35
	η -U ₂ Te _{3-x}	35
	U ₂ Te ₃	34, 163, 165
	γ -U ₂ Te ₃	2, 34, 35, 162, 164, 277
	η -U ₂ Te ₃	2, 35, 166-169, 278, 283
	U ₂ Te ₅	45, 252, 253, 282, 284
	U _{3-y} Te ₄	162
	U _{2.67} Te ₄	34, 162, 283
	U ₃ Te ₄	2, 31, 32, 74, 151-153, 165, 167, 276, 283, 285
	U ₃ Te ₅	2, 36, 177-179, 278, 283
	U ₇ Te ₁₂	2, 37, 180-182, 282, 283
Th-X	Th ₃ X ₄ (X = pnictogen)	4, 19
	Th ₃ X ₄ (X = P, As)	81
	Th ₃ X ₄ (X = P, As, Sb)	53
	Th ₃ X ₄ (X = P, As, Sb, Bi)	53
	Th ₃ X ₄ (X = P, As)	55, 56, 58
U -X	UX ₂ (X = pnictogen)	4, 10, 11, 37
	UX ₂ (X = As, Sb)	202-205
	UX ₂ (X = As, Sb, Bi)	184, 207
	UX ₂ (X = P, As, Sb)	190-192, 287
	UX ₂ (X = P, As, Sb, Bi)	183, 185-187, 189, 190
	UX ₂ (X = P, Bi)	197
	UX ₂ (X = P, Sb)	194, 200
	U ₃ X ₄ (X = pnictogen)	4, 8, 9, 11, 20
	U ₃ X ₄ (X = P, As)	58, 65, 70, 81-87, 89, 94, 98, 107, 110, 111
	U ₃ X ₄ (X = P, As, Sb, Bi)	61, 62, 68, 69, 70, 73, 74, 287
	U ₃ X ₄ (X = As)	71
	U ₃ X ₄ (X = As, Sb)	127, 138
	U ₃ X ₄ (X = P)	71
	U ₃ X ₄ (X = P, As, Sb)	4, 64, 67, 68, 72, 75
	U ₃ X ₄ (X = Sb, Bi)	66, 144
	UXX (X = pnictogen)	11
U -X -Y	UXY (X = pnictogen; Y = chalcogen)	11
	U ₃ (X,Y) ₄ (X = pnictogen; Y = chalcogen)	8
U -Y	U-Y (Y = chalcogen)	48
	α -UY ₂ (Y = S, Se)	234
	UY ₃ (Y = S, Se, Te)	46, 253, 254
	η -U ₂ Y ₃ (Y = S, Se)	164
	η -U ₂ Y ₃ (Y = S, Se, Te)	165
	U ₃ Y ₄ (Y = S, Se, Te)	69
	U ₃ Y ₄ (Y = Se, Te)	8, 31, 150, 152, 153