

Index of substances for Volume III/27B6α

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: $\text{UAs}_{1-x}\text{P}_x$ is listed under As-P -U
 AnX ($\text{An} = \text{U, Np, Pu}$; $\text{X} = \text{N...Bi}$) under An-X

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	C-Pu	Pu-C
		PuC_{1-x}
		PuC
		Pu_2C_3
	

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, or in one of the different formulations used in text, tables and figures (second column). In series of compositions or solid solutions the various formulae are frequently summarized in a more general formula (e.g. $\text{U}_{1-x}\text{Th}_x\text{Sb}$ instead of listing all formulae with various x-values ($x = 0.15, 0.2, 0.66...$) given on the respective pages).

In some cases more general formulations were used for groups of substances like e.g. AnX, AnY, REX. These formulations were also considered in the Index (under the systems An-X, An-Y or RE-X), and the meaning of the An, RE, X and Y 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
A -N -U	(U _{1-x} A _x)N	36
Al-Rh-U	URhAl	345
Am-As	AmAs	101, 418
Am-Bi	AmBi	64, 97, 101, 306, 414, 416, 418
Am-N	AmN	3, 4, 37, 97, 101, 136, 184, 418
Am-P	AmP	43, 97, 238, 414, 418
Am-Sb	AmSb	62, 405, 418
Am-Se	Am ₃ Se ₄	405
Am-X	AmX	7, 67
	AmX (X = N, As, Bi)	25, 101
	AmX (X = N...Bi)	25, 97
	AmX (X = N...Bi, O)	25
An-An'-N	An _{1-x} An' _x N	37
	(An, An')N, (An, An' = U, Np, Pu)	182
An-As	AnAs	3, 239
	AnAs (An = Th, Pa, U, Np, Pu)	239, 240
	AnAs (An = Th...Cm)	44
	AnAs (An = Th...Pu)	44
	AnAs (An = U, Np)	44
An-Bi	AnBi	52, 306
	AnBi (An = U...Cm)	63, 306
	AnBi (An = Am, Cm, Cf)	421
An-C	AnC _{1-x}	1, 3
	AnC _{1-x} (An = Th...Pu)	25
	AnC	1, 25, 68, 102, 106
	AnC (An = Pa, U, Pu)	25, 106
	AnC (An = Th, Pa, U, Np)	25, 102, 105
	AnC (An = Th, U)	25
	AnC (An = Th, U, Np, Pu)	420
	AnC (An = Th, U, Pu)	31
	AnC (An = Th, U, Pu, Np, Am)	26
	AnC (An = U, Np, Pu)	25, 26, 106
An-N	AnN	1, 3, 25, 68, 106, 138, 182
	AnN (An = Am, Cm, Cf)	421
	AnN (An = Th...Am)	30
	AnN (An = Th...Bk)	30
	AnN (An = Np, Pu, Am)	36, 180
	AnN (An = Th, U)	30, 136
	AnN (An = Th, U, Pu)	31
	AnN (An = Th, U, Pu, Np, Am)	26
	AnN (An = U, Np, Pu)	37
	AnN (An = U...Am)	31, 140
	AnN (An = U...Cf)	30
	AnN. (An = U, Pu)	147

Element system	Chemical formula	Page
An-P	AnP	3
An-Sb	AnSb	52, 239, 306
	AnSb (An = U, Np, Pu)	20, 52, 65
	AnSb (An = U...Cf)	306
	AnSb (An = U, Pu)	52, 345
An-Se	AnSe	69
An-T	AnT ₂ (T = Fe, Co, Ni)	345
An-Te	AnTe	69
An-X	AnX	3, 8, 10, 20-22, 65, 66, 69, 75-78, 417
	AnX (An = Ac...Cm; X = P...Bi)	20
	AnX (An = Am...Cf)	21, 25
	AnX (An = Am, Cm, Cf)	20
	AnX (An = Np...Bk; X = N...Sb)	20
	AnX (An = Pu ³⁺ , Am ⁴⁺)	24
	AnX (An = Th...Pu; X = C; N...Bi)	20
	AnX (An = Th...Pu; X = C; N...Sb)	20
	AnX (An = Th, U, Np, Pu)	420
	AnX (An = Th, U; X = C, N, P)	22, 78
	AnX (An = Th, U; X = P...Bi)	21
	AnX (An = Th...Cf; X = N, P, As, Sb)	67
	AnX (An = Th...Pu)	20
	AnX (An = U...Cf; X = N...Bi)	21
	AnX (An = U)	21
	AnX (An = U, Np, Pu)	21
	AnX (An = U, Np, Pu, Cm, Bk, Cf)	74
	AnX (An = U, Np, Pu; X = As, Sb, Bi)	20
	AnX (An = U, Np, Pu; X = N...Bi)	21
	AnX (An = U, Np; X = C, P, As)	21
	AnX (An = U, Pu)	22
	AnX (An = U, Pu; X = C, N, P)	21
	AnX (An = U, Pu; X = C, N, P, S)	22
	AnX (An = U, Pu; X = P, As, Sb)	20
	AnX (An = U; X = C, N, Sb)	22
	AnX (X = As, Sb, Bi)	70
	AnX (X = N, P, As, Sb, Bi)	1
	AnX (X = P, As, Sb, Bi)	20, 66, 68, 303
	AnX (X = C, N, P)	22
	AnX (X = C, P, As)	22

Element system	Chemical formula	Page
An-X -Y	$AnX_{1-x}Y_x$	21
An-Y	AnY	20, 21, 65, 69
	AnY (An = Th...Pu)	20
	AnY (An = U)	21
	AnY (Y = S, Se, Te)	1
As-Ce	CeAs	421
As-Cf	CfAs	52, 305, 418
As-Cm	CmAs	52, 305, 418
As-Np	NpAs	8, 10, 49-51, 69, 89, 94, 95, 286-302, 376, 378, 418, 421-423
	NpAs ₂	345
As-P -U	UAs _{1-x} P _x	9, 49, 75, 284-286
As-Pa	PaAs	44
As-Pu	PuAs	51, 69, 99, 302-305, 414, 418
As-S -U	U(As,S)	9
As-Sb-U	UAs _{1-x} Sb _x	57, 355, 356
As-Se-U	UAs _{0.7} Se _{0.3}	273
As-Th	Th-ThAs	44
	ThAs	44, 46, 47, 66, 240, 241, 257, 266, 267
As-Th-U	U _{1-x} Th _x As	48, 49, 278-282
As-U	UAs	3, 4, 6, 8-10, 38, 44-48, 75, 82-85, 87-89, 91, 94, 169, 191, 193, 208, 215, 217, 239-277, 283, 328, 331, 417, 419, 421-423
	U-UAs	44, 240
As-U -Y	U _{1-x} Y _x As	49, 282, 283
Bi-Ce	CeBi	249, 421
Bi-Cf	CfBi	64
Bi-Cm	CmBi	20, 64, 306, 416
Bi-Np	NpBi	10, 63, 64, 409-413, 418, 421
Bi-Pu	PuBi	64, 99, 413-416, 418
Bi-Th	Th-Bi	63
	ThBi	3, 63, 66, 406
Bi-U	U-Bi	63, 406
	UBi	3, 8, 63, 82, 406-409, 416, 417
	U ₃ Bi ₄	409
Bk-N	BkN	38, 185, 418
Bk-X	BkX (X = N...Sb)	25
C -N -O -Th	ThC _{0.76} O _{0.15} N _{0.01}	109
C -N -Pu	PuC _{1-x} N _x	30, 182
	PuN _{0.56} C _{0.28}	37, 182
C -N -Th	ThC _{1-x} N _x	26, 31, 111, 139
C -N -U	UC-UN	1
	UN _{1-x} C _x	26, 36, 127, 172-179
C -Np	NpC _{1-x}	26, 29, 127, 129, 131

Element system	Chemical formula	Page
C -Np (cont.)	NpC	9, 29, 75, 96, 102, 129-131, 422, 423
C -O -Pu	Pu(C, O)	30
C -O -U	UC _{1-x} O _x	29
C -Pa	PaC	27, 102, 106, 112
C -Pu	Pu-C	2
	PuC _{1-x}	3, 29, 30, 132-135
	PuC	22, 29, 30, 106, 133, 423
	Pu ₂ C ₃	132
C -Pu-U	(U,Pu)C	30
C -Th	Th-C	2, 26
	ThC _{1-x}	3, 26, 109-112
	ThC _x	26, 27, 109, 111
	ThC	3, 26, 78, 102-110, 112, 128, 179
	ThC ₂	112
C -Th-U	U _{1-x} Th _x C	29, 128
C -U	UC _{1-x}	27, 36
	UC _y	178
	U-C	2
	UC	2, 3, 7, 10, 26-29, 78, 84, 102-106, 110, 113-127, 134, 138, 141, 172-178, 244, 419, 422, 423
	UC _{1+x}	27, 112
	UC ₂	112
Ce-N	CeN	27, 48, 271
Ce-Sb	CeSb	249, 312, 314, 319, 320, 404, 421
Ce-X	CeX	23, 88
Cf-N	CfN	3, 38, 138, 186, 418
Cf-P	CfP	418
Cf-Sb	CfSb	63, 405, 418
Cf-X	CfX (X = N, Bi)	25
	CfX (X = As, Sb, Bi)	25
	CfX (X = N, As, Sb)	25
Cm-N	CmN	3, 38, 185, 418
Cm-P	CmP	43, 238, 418
Cm-Sb	CmSb	43, 63, 238, 418
Cm-X	CmX (X = N, P, As, Sb)	25, 101
	CmX (X = N, Bi)	25
	CmX (X = N...Bi)	25
Gd-N	GdN	101, 155
Gd-X	GdX (X = N...Sb)	25
La-Sb	LaSb	53, 307, 314, 320
Ln-N	LnN	78
Ln-N -Th	Th _{1-x} Ln _x N (Ln = Y, La, Ce, Pr, Nd)	31

Element system	Chemical formula	Page
Ln-N -U	(U _{1-x} Ln _x)N (Ln=La, Ce, Pr, Nd, Sm, Gd, Dy, Er)	36
Ln-P -U	(U,Ln)P	219
	U _{1-x} Ln _x P (Ln = Pr,Nd)	225
Ln-X	LnX	68, 78
	Ln(P...Bi)	78
	LnX (Ln = La, Ce)	68
M -Sb-U	U(Sb _{1-x} M _x)	352
N -Np	NpN	29, 37, 94, 131, 136, 147, 179-181, 417, 422, 423
N -Np-Pu	Np _{1-x} Pu _x N	181
N -Np-U	U _{1-x} Np _x N	37, 181
N -O -Th	Th-N-O system	31
N -Pa	PaN	31, 136,
N -Pu	PuN	7, 32, 37, 136, 147, 181-183, 303, 418
	PuN _x	37
	PuN _{0.89}	182
N -Pu-U	UN-PuN	3
	U _{1-x} Pu _x N	32, 37, 147, 181
N -R -U	UN-RN (R = Y, La, Ce, Pr, Nd)	3
N -T -U	UN-TN (T = Zr, Hf)	3
N -Th	ThN	3, 26, 30-32, 35, 78, 111, 136-139, 165, 167, 168, 178
	Th ₃ N ₄	30, 136, 137
	Th-N	137
N -Th-U	UN-ThN	3
N -U	U-N	141
	UN _{0.985-0.997}	141
	UN _{0.996}	141
	UN	3, 4, 7, 8, 10, 27, 29, 31-37, 78, 82-85, 87-89, 113, 114, 120, 127, 136, 138-178, 181, 182, 190, 191, 301, 408, 417, 419, 421-423
	U ₂ N ₃	32, 144
Nd-P	NdP	224
Nd-P -U	U _{1-x} Nd _x P	6, 42, 222, 224-226
Np-P	NpP	8, 42, 43, 94, 180, 226, 228-232, 417, 422, 423
Np-Pu-X	(Pu, Np)X	23
Np-Sb	NpSb	7, 10, 50, 59, 60, 62, 65, 69, 88, 94, 95, 293, 306, 374, 376-381, 383, 398, 399, 418, 421-423
	Np ₃ Sb ₄	374
Np-Te	NpTe	69
Np-X	NpX	9, 96
	NpX (X = As, Sb, Bi)	24, 95

Element system	Chemical formula	Page
Np-X (cont.)	NpX (X = N, P, As, Sb)	24, 95-97
	NpX (X = N...Bi)	23, 24, 95
	NpX (X = C...Sb)	24
O -Pu	Pu ₂ O ₃	345
O -U	UO	27, 113, 141
	UO ₂	1, 5, 92, 210, 345
P -Pr-U	U _{1-x} Pr _x P	42, 222, 224, 226
P -Pu	PuP	6, 22, 43, 78, , 233-237, 384, 418, 422, 423
P -R -U	(U, R)P (R = Th, Pr, Nd)	42, 226
	U _{1-x} R _x P (R = Pr, Nd)	42
P -S -U	U(P,S)	9
P -Th	Th-P	38, 187
	ThP _x	38, 187
	Th _x P	187
	ThP	7, 38, 78, 187, 188, 192, 210, 212, 214-216, 237, 284
P -Th-U	U _{1-x} Th _x P	41, 42, 217-220
	U _{0.77} Th _{0.23} P _{0.94}	218
P -U	U-P	38, 188
	UP _{1-x}	38, 188
	UP	3, 4, 6, 8-10, 38-41, 45, 75, 78-85, 87-94, 169, 188-217, 246-250, 264, 274, 331, 417, 419, 422, 423
	U ₃ P ₄	193, 207
Pu-Sb	PuSb	6, 10, 50, 51, 56, 60-62, 65, 69, 99, 293, 305, 345, 383-399, 403, 405, 414, 418, 421
Pu-Sb-U	U _{1-x} Pu _x Sb	62, 89, 398-403
Pu-Sb-Y	Pu _{1-x} Y _x Sb	62, 404, 405
Pu-Te	PuTe	69
Pu-X	PuX	303
	PuX (X = As, Sb, Bi)	24, 99
RE-Sb	RESb (RE = Yb, Er, Tb, Nd, Ce)	312
RE-X	REX	3
S -Th	ThS	211, 212
S -U	US	7, 92
Sb-T -U	(U,T)Sb (T = Y,Th)	356
Sb-Te-U	USb _{1-x} Te _x	58, 350, 359
Sb-Th	ThSb	52, 54, 66, 306-309, 358, 359, 394
Sb-Th-U	U _{1-x} Th _x Sb	57-59, 220, 356-372
Sb-U	USb	3-10, 32, 44, 48, 50, 52-59, 62, 65, 77, 82-85, 87-89, 91, 92-94, 144, 145, 169, 208, 220, 239, 242, 271, 272, 293, 306, 308-351, 353, 354, 356, 358-360, 362, 371, 378, 393, 398-400, 403, 408, 409, 417, 419, 421-423

Element system	Chemical formula	Page
Sb-U (cont.)	U_3Sb_4	329
	U_5Sb_4	350
Sb-U -Y	$U_{1-x}Y_xSb$	6, 57, 59, 350, 356, 371-376
Sb-Y	YSb	350
Se-U	USe	273
Si-U	USi	3
Te-U	UTe	308, 312, 324, 350
Th-X	ThX	78
	ThX (X = C, N, P, (S))	6, 22
	ThX (X = N...Sb)	22, 78
	ThX (X = C, N, P)	22
	ThX (X = C; N...Bi)	22
	ThX (X = P...Bi)	63
U -X	UX	4, 7-9, 20, 23, 78, 84, 86-88, 419, 422
	UX (X = C, N, As, Sb)	83
	UX (X = C, N, P)	24, 91
	UX (X = C...Sb)	22, 23
	UX (X = C; N...Bi)	22, 23
	UX (X = N, As, Sb)	23, 85
	UX (X = N, P, As)	23, 24, 89
	UX (X = N, P, As, Sb)	23
	UX (X = N...Bi)	1, 22, 23, 80, 85, 88
	UX (X = N...Sb)	22-24, 82, 92
	UX (X = N...Sb, O)	80
	UX (X = P, As, Sb)	22-24, 80, 84, 91, 93, 94
	UX (X = P, Sb)	92
	UX (X = P, Sb, (S))	24
	UX . (X = P, As, Sb, Bi)	23, 63, 82
U -X -Y	$U(X,Y)$	75
U -Y	UY	23, 84, 88