1.3.2.3 Survey

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
1 : 1 compounds					
See LB III/27B6α (pnictides) and LB III/27B6β (chalcogenides)					
4 : 3 compounds					
Pu_4Sb_3		Lattice parameter		A	87B
Am_4Sb_3		Lattice parameter		A	87B
5 : 4 compounds					
U_5Sb_4	sc	Crystal structure refinement	1	E	94PRBD
	sc	Magnetization σ vs. B up to 5 T at T = 6 K	3a		94PRBD
	sc	σ vs. B up to 35 T at T = 1.5 K	3b		94PRBD
		σ vs. T (4.2…100 K)	2a		92T
		σ vs. T (2…200 K)	2b		94PRBD
		Magnetic susceptibility χ vs. T (2…300 K)		F	94PRBD
		Inverse magnetic susceptibility χ_m^{-1} vs. T (90...280 K)	4		92T
	sc	Neutron diffraction intensity	5		94PRBD
	sc	Magnetic form factor	6		94PRBD
		^{121}Sb Mössbauer spectra at T = 4.2 and 102 K	7		94PRBD
	sc	Heat capacity C_p vs. T (4.2…200 K)	8		94PRBD
	sc	Electrical resistivity ρ vs. T			94PRBD
3 : 4 compounds					
Th_3N_4		Formation and oxidation			87UKM
		- no solubility of oxygen			
		Crystal structure refinement	9	E	66BZ,87UKM
		Lattice parameters α-phase		E	71BA
		β-phase		E	68JG
		Electrical conductivity σ vs. T^{-1} (1000...1353 K)	10		81KTMM
Th_3X_4		Crystal structure	11		63K
		Electrical conductivity σ vs. T (80...1300 K)	12		65PW
		Thermoelectric power S vs. T (80...1300 K)	13		65PW
Th_3P_4		Energy band structure calculated by LDA-APW	14		90TKK
		Total and partial DOS calculated by LDA-APW	15		
		Partial DOS calculated by LDFT-ASW	16		98KSK
	sc	Raman spectra at T = 10 and 300 K	17		83MSKH
	sc	Optical reflectivity R vs. $h\nu$ (0.03...12eV)	18		83SKHH
	sc	under pressure up to 38 GPa R vs. $h\nu$ (0.5...4eV)	24a		94B
		Optical reflectivity calculated by LDFT-ASW	20		98KSK
	sc	Optical absorption coefficient $K^{1/2}$ vs. $h\nu$ (0.3...1.7eV)	19		83SKHH
		Optical conductivity calculated by LDFT-ASW	21		98KSK
	sc	Optical conductivity σ vs. $h\nu$ (0.03...12eV)	22		83SKHH
	sc	under pressure up to 38 GPa σ vs. $h\nu$ (0.5...4eV)	24b		94B
	sc	Dielectric constants under pressure up to 38 GPa	24c		94B
		ε_1, ε_2 vs. $h\nu$ (0.5...4eV)			
		Energy level scheme	23		83SKHH
		Crystal structure	11		63K
		Lattice parameter		A	39M,65PW

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
Th_3P_4 (cont.)		Relative volume V/V_0 vs. p up to 50 GPa			90GSBL, 92BDDG
	poly	Electrical conductivity σ vs. T (80...1300 K)	12		65PW
	hotpressed	Electrical resistivity ρ vs. T (4.2...600 K)	25a		72THM
	hotpressed	$\log\rho$ vs. $1/T$ (400...860 K)	25b		72THM
		ρ vs. T (78...800 K)	26a		77HMZ
	hotpressed	Thermoelectric power S vs. T (80...1300 K)	13		65PW
		S vs. T (78...800 K)	26b		77HMZ
	hotpressed	Hall carrier concentration n_H vs. T (77…300 K)	25c		72THM
		n_H vs. $1/T$ (78…800 K)	26c		77HMZ
	hotpressed	Thermal conductivity at 300 K κ= 0.0066 cal/(cm s K)			65PW
Pa_3P_4		Lattice parameter		A	82WDH
U_3X_4		Total DOS calculated by LMTO-ASA	27		99AHYP
		Total DOS calculated by LDFT-ASW	32a		97SK
		Total DOS near E_F calculated by LMTO-ASA	28b		99AHYP
		Total and partial DOS calculated by LDFT-ASW	33		97SK
		Partial U5f and Xnp DOS calculated by LDFT-MASW	34		00KSK
		Partial U5f DOS calculated by LDFT-ASW	32b		97SK
		Partial Xnp and U6d DOS calculated by LDFT-ASW	32c		97SK
		Energy band structure near E_F	28a		99AHYP
		Cross sections of the Fermi surface	29a		99AHYP
		Kerr ellipticity and rotation calculated by LSDA	30,31		99AHYP
		Calculated phonon spectrum			75KK
		Calculated magnetic structure	36		00KSK
		Theoretical magnetic phase diagram	40a		87HMOP
		Calculated magnetization σ vs. B	40b		87HMOP
		General properties: a,T_C, p_s, $\chi(0)$	41		01IWMA
		Crystal structure	35		57F,71TMS, 96GWH, 01IWMA
		Relative volume V/V_0 vs. p up to 50 GPa			90GSBL, 92BDDG
		Curie temperature vs. U-U distance	42		86HMD
		Magnetization σ vs. B up to 4 T at 4.2 K	44a		71TSB
		Magnetization σ vs. T (4.2...T_C)	44b		71TSB
		Inverse magnetic susceptibility χ_m^{-1} vs. T (150…1200 K)	45	F,H	71TMS
		Magnetic structure by neutron diffraction	37a		81BRTH
			37b		99WGH
	sc	Spin and orbital moments from polarized neutron study	43	P	99WGH
		Spin and angular moments calculated by LDA		P	97SK
		Landau approach to the magnetic structure			70P,72PP, 76PC
		Theoretical model of magnetic structure			87HMOP, 95SK
		RKKY approach to magnetic behaviour			73AI
		MFA theory of phase transitions			88O
		Theory of energy excitations			90OP
		p-f mixing model			83STNT
	sc	Electrical resistivity ρ vs. T (T_C...300 K)	46		81HMK

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
U_3P_4		Total DOS calculated by LMTO-ASA	27		99AHYP
		calculated by LDFT-ASW	32a		97SK
		Total DOS near E_F calculated by LMTO-ASA	28b		99AHYP
		Total and partial DOS calculated by LDFT-ASW	33		97SK
		calculated by LSDF-ASW	48, 50		96SK
		Partial DOS calculated by LDFT-ASW	49		98KSK
		Partial U5f and P3p DOS calculated by LDFT-MASW	34		00KSK
		Partial U5f DOS calculated by LDFT-ASW	32b		97SK
		Partial P3p and U6d DOS calculated by LDFT-ASW	32c		97SK
		Energy band structure near E_F calc. by LMTO-ASA	28a		99AHYP
		calculated by LSDF-ASW	47		96SK
		Cross sections of the Fermi surface	29a		99AHYP
		Energy level scheme	23		83SKHH
	sc	Optical reflectivity R vs. $h\nu$ (0.03...12eV)	57		83SKHH
	sc	Optical conductivity σ vs. $h\nu$ (0.03...12eV)	22		83SKHH
	sc	Optical conductivity $\sigma_{1xy},\sigma_{2xy}$ vs. $h\nu$ (0.5...5.5eV)	58		83SKHH,86R
	sc	$\sigma_{1xx},\omega\sigma_{2xy}$ vs. $h\nu$ (0.5...5.5eV)	59		86R
		Optical reflectivity and conductivity calc. by LDFT-ASW	51		98KSK
		Optical conductivity calculated by LDFT-ASW	21,		98KSK
		with and without U5f term	54,		
		for different canting angle	55		
		Off-diagonal optical conductivity calc. by LDFT-ASW	52		98KSK
	sc	Kerr ellipticity and rotation ε_K,θ_K vs. $h\nu$ (0.5...5.5eV)	60		86R,90RS
		Kerr ellipticity and rotation calculated by LSDA	30		99AHYP
		calculated by LDFT-ASW	53		97KSK2, 98KSK
		Kerr rotation calculated by LDFT-ASW for different canting angle	56		98KSK
	sc	XPS spectra of P2p states	61		97SHMS
	sc	XPS spectra of U4d core states	62		97SHMS
	sc	XPS spectra of U5d states	63a		97SHMS
	sc	XPS spectra of U4f core states	64		95SMIO
	sc	CFS spectra	63b		97SHMS
	sc	BIS spectra at 130 K	65		95SMIO
	sc	UPS spectra taken at $h\nu$ = 104 eV	65		95SMIO
	sc	at $h\nu$ = 70eV	66a		85SYSM
	sc	at $h\nu$ = 120 eV	66b		85SYSM
	sc	at $h\nu$ (32...104eV)	67		85SYSM
	sc	High-resolution UPS spectra taken at $h\nu$ (36...101eV)	68		85SYSM
	sc	Single crystal growth method			68H,85H
		General properties: a,T_C, p_s, $\gamma(0)$	41		01IWMA
		Crystal structure	35		57F,71TMS, 96GWH, 01IWMA
		Lattice parameter		A	63TT,64WP2, 67AD,71TMS, 77KSM
	sc	Rhombohedral distortion angle ϕ vs. T (5…140 K)	69		75SWS

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
U_3P_4 (cont.)		Relat. linear thermal expansion $\Delta l/\Delta l_s$ vs. T (77...900 K)	70		71HB
		Relative volume V/V_0 vs. p up to 50 GPa			90GSBL, 92BDDG
		Inverse magnetic susceptibility χ_m^{-1} vs. T (150…1200 K)	45	F,H	71TMS
		χ_m^{-1} vs. T (200...300 K)		F	69B
		χ_g^{-1} vs. T (180...270 K)			72N
	sc	χ_g^{-1} vs. T (160...300 K)			73BHDL
		Curie temperature vs. U-U distance	42		86HMD
		Magnetization σ vs. B up to 4 T at 4.2 K	44a		71TSB
		σ vs. B up to 1 T			72N
		σ vs. B up to 16 T			63TT
	sc	for $B \parallel$ [111] σ vs. B up to 14 T	72a		81TM
	sc	for $B \parallel$ [100],[111] σ vs. B up to 30 T			73BHDL
	sc	at 78 K for $B \parallel$ [100],[110],[111] σ vs. B up to 24 T	73		71THBD
	sc	at 78 K for $B \parallel$ [100],[111] σ vs. B up to 1.5 T			75SSSS
	sc	at 4.2, 80 K for $B \parallel$ [100],[111] σ vs. B up to 50 T	74		82GLLO
	sc	Arrott's plot for $B \parallel$ [111] σ^2 vs. B/σ	72b		81TM
	sc	σ^2 vs. B/σ near T_C	80		83TA
		Neutron diffraction intensities I vs. T (4.2…160 K)			71THBD
	sc	I vs. T (4.2…170 K)	75		81BRTH
	sc	I vs. T (4.2…300 K)	76		93SDKT
	sc	I vs. T near T_C	84		93SDKT
		Magnetic form factor at T = 80 K			65CMT
		Magnetization σ vs. T (4.2 K...T_C)	44b		71TSB
		σ vs. T (77...150 K)			72N
		σ vs. T (80...150 K)	77a		76SSSS
	sc	for $B \parallel$ [100],[111] σ vs. T (80...160 K)	77b		76SSSS
	sc	for $B \parallel$ [100],[111] σ vs. T (4.2...160 K)			73BHDL
	sc	Angular dependence of magnetization in the (110) plane	79a,b		69B,75SSSS
	sc	Reduced magnetization for $B \parallel$ [111] $\sigma/\sigma(0)$ vs. $T^{3/4}$	78		82MKTS
	sc	$\sigma_s/\sigma_s(0)$ vs. T/T_C	82		83TA
	sc	Spontaneous magnetization for $B \parallel$ [111] σ_s vs. T	72c		81BRTH
	sc	Evaluation of critical exponents β, γ and δ	81		83TA
	sc	Homogeneous equation of state	83		83TA
		Pressure effect on magnetization at 4.2 K			83FFLM
		$d\ln\sigma/dp$ = 0(3) $Mbar^{-1}$			
	sc	Torque curves L vs. φ at 118 K	86		78Z
	sc	L vs. φ at T = 78 K in B =1.95 T	85		73BHDL
	sc	Anisotropy constants K vs. T (78…140 K)	79c		75SSSS
	sc	$K_1^{(1)}$ vs. T (35...120 K)			76Z
	sc	$K_1^{(0)}$, $K_2^{(1)}$ vs. B up to 30 T			76Z
	sc	Barkhausen effect at 77 K for $B \parallel$ [100],[110],[111]	87		77FSMZ
	sc	Magnetostriction λ vs. $B \parallel$ [111], [110]	89		71THBD
	sc	Spontaneous magnetostriction λ_s vs. T (78…140 K)	90		71THBD
	sintered	Technical magnetic data σ_s, σ_r, B_c vs. T (80…140 K)			69B
	sc	Domain structure determination by cryocondensation			85SSH,89SH
	sc	Domain structure determination by Kerr effect			89SH,92S
	sc	Domain width w_i vs. B	88		92S

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
U_3P_4 (cont.)		Magnetic structure by neutron diffraction			73MLLT
	sc		37a		81BRTH
	sc		37b		99WGH
		Calculated magnetic structure	36		00KSK
			38		76WPP
		Theoretical magnetic phase diagram	40a		87HMOP
		Calculated magnetic characteristics			79PKK
		Calculated magnetization σ vs. B	40b		87HMOP
	sc	Spin and orbital moments from polarized neutron study	43	P	99WGH
		Spin and angular moments calculated by LDA		P	97SK
		Theoretical model of non-collinear magn. structure			87HMOP, 95SK,96SK
		Landau approach to the magnetic structure			70P,72PP,76PC
		RKKY approach to magnetic behaviour			73AI
		MFA theory of phase transitions			88O
		Theory of energy excitations			90OP
		p-f mixing model			83STNT
		Crystal field model			71TMS
		Calculated crystal field energy levels	71	S	80Z,86ABHM
		^{31}P NMR Knight shift K^{-1} vs. T (210…620 K)	91		77KSM
		K vs. χ_m for T (175…550 K)	92		67J
		^{31}P NMR relaxation rate T_1^{-1} vs. T (150…800 K)	93a		83STNT,
		T_1^{-1} vs. $(T–T_C)/T_C$	93b		85TNSK
		^{31}P NMR spin echo spectrum at T = 4.2 K	94		85TNSK
		Heat capacity C_p vs. T (22…350 K)	95		66SBT
		C_p vs. T (4.2…300 K)			67CDJM, 77AFWG
		C_p vs. T (4.2…300 K)	96a		86ABHM
		C_p/T vs. T^2 (0.6…12 K)	96b		86ABHM
		C_p/T vs. T^2 (0.6…7)			01IWMA
	sc	Elastic constants c_{ij} vs. T (4.2…280 K)	97		93KFL
	sintered	Electrical conductivity at T = 300 K σ = 785 $(\Omega cm)^{-1}$			64WP2
	sc	Electrical resistivity ρ vs. T (T_C...300 K)	46		81HMK
	sc	ρ vs. T (0.4...280 K)	99		01IWMA
	sc	ρ vs. T (85…200 K) under pressure up to 8.2 kbar	103a		80H2
	sc	ρ (300 K), ρ_s^∞ and T_C vs. p up to 11 kbar	103b		80H2
	sc	coefficient A in $\rho \sim AT^2$ vs. p	100		02TTKA
	sc	Normalized electrical resistivity ρ/ρ (300 K) vs. T	98		71HB
	sc	ρ/ρ (T_C) vs. T (105...220 K)	101		80H3
	sc	temp. derivative d[ρ/ρ (T_C)]/dT vs. T (105...220 K)	101		80H3
	sc	temp. derivative d[ρ/ρ (T_C)]/dT vs. $(T–T_C)/T_C$ in paramagnetic region	102		80H3
	sc	Pressure-Curie temperature phase diagram from ρ (T)	104		02TTKA
	sc	Transverse and longitudinal MR $\Delta R/R(0)$ vs. B at 77 K	105		71HB
	sc	$\Delta R/R(0)$ vs. T (77...220 K)	106		71HB
	sc	Magnetoresistivity $\Delta\rho/\rho$ (0) vs. B up to 13T at 0.45 K	108		01IWMA
	sc	$\Delta\rho/\rho$ (0) vs. $\alpha(B,i)$ at around 2 K	107a		77BHP
	sc	ρ/ρ (0) vs. $\alpha(B,i)$ at 0.45 K in 13 T	109		01IWMA

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
U_3P_4 (cont.)	sc	$\Delta\rho/\rho$ (0) vs. B/ρ (0) for $i \parallel$ [110]	107b		77BHP
	sc	$\Delta\rho/\rho$ (0) vs. B·RR| [111]	107c		
	sc	$\Delta\rho/\rho$ (0) vs. B up to 14T for $i \parallel$ [110]	107d		
	Sc	dHvA oscillations for $B \parallel$ [111]	110a		01IWMA
	Sc	FFT spectrum from dHvA data for $B \parallel$ [111]	110b		01IWMA
	Sc	Angular dependence of dHvA frequencies	111		01IWMA
	Sc	dHvA effect studies			83HJAC, 90TKTO 93GSS, 93IATS
	sintered	Thermoelectric power S (300 K) = 30 μV/K			64WP2
	poly	S vs. T(100...800 K)	112		72H
	poly	Hall resistivity ρ_H vs. B up to 0.5 T at T = 77.7 K	174		72H
	poly	Effective Hall coefficient R^* vs. magn. susceptibility χ^*	113		72H
	poly	Anomalous Hall coefficient R_s vs. T (70…450 K)	114		72H
	sintered	Thermal conductivity at 300 K κ = 0.0045 cal/(cm s K)			64WP2
$(U_{1-x}Th_x)_3P_4$	sc	Single crystal growth			77HM
	poly	Lattice parameter a vs. x	115a		67TPST
	poly	Curie temp. and paramagnetic Curie temp. T_C, Θ_p vs. x	115b		67TPST
	poly	Thermoelectric power S vs. T (170…360 K)	116a		72THM
	poly	at 300 K S vs. x	116b		72THM
Np_3P_4		Lattice parameter		A	53SF
Th_3As_4		Total and partial DOS calculated by LDA-APW	118		90TKK
		Energy band structure calculated by LDA-APW	117		83STNT,90TKK
	sc	Optical reflectivity R vs. $h\nu$ (0.03...12eV)	18		83SKHH
	sc	Optical absorption coefficient $K^{1/2}$ vs. $h\nu$ (0.3...1.7eV)	19		
		Positron annihilation spectra	119		76RDH
	sc	Raman spectra at T = 10 and 300 K	17		83MSKH
		Energy level scheme	23		83SKHH
		Crystal structure	11		63K
		Lattice parameter		A	39M,55F, 65PW,80BLTH
		Relative volume V/V_0 vs. p up to 50 GPa			90GSBL, 92BDDG
		Heat capacity C_p vs. T (5…300 K)	152a		80BLTH
	hotpressed	Electrical conductivity σ vs. T (80...1300 K)	12		65PW
	hotpressed	σ vs. T (80...1173 K)	124		64WP1
	poly	Electrical resistivity ρ vs. 1/T (350...700 K)	120		79MHW1, 79MHW2
	poly	ρ vs. 1/T (78...830 K)	121b		78HM
	sc	ρ vs. 1/T	125a		86HMMW
	sc	Electrical resistance log$R$ vs. 1/T (164...217 K)	125b		86HMMW
	sc	log$R$ vs. 1/T (286...425 K)	125c		86HMMW
	hotpressed	Thermoelectric power S vs. T (80...1300 K)	13		65PW
	poly	S vs. 1/T (78...830 K)	121c		78HM
	hotpressed	S vs. T (80...1173 K)	124		64WP1
	sc	Thermopower sign inversion temp. vs. pressure			86HMMW
		TSIT2 up to 1.36 GPa	126a		
		TSIT1 up to 0.76 GPa	126b		

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
Th_3As_4 (cont.)	sc	Thermopower sign inversion temp. vs. pressure			86HMMW
		TSIT2 up to 1.36 GPa	126a		
		TSIT1 up to 0.76 GPa	126b		
	poly	Hall carrier concentration n_H vs. $1/T$ (78...830 K)	121a		78HM
	poly	Hall carrier mobility μ_H vs. T (78...800 K)	122		78HM
	poly	Electron effective mass m^*/m_0 vs. T (100…280 K)	123		78HM
	hotpressed	Thermal conductivity at 300 K κ = 0.0130 cal/(cm s K)			65PW
Pa_3As_4		Lattice parameter		A	79CSRM
U_3As_4		Total DOS calculated by LMTO-ASA	27		99AHYP
		calculated by LMTO-ASA	127		99AHYP
		calculated by LDFT-ASW	32a		97SK
		Total DOS near E_F calculated by LMTO-ASA	28b		99AHYP
		Total and partial DOS calculated by LDFT-ASW	33		97SK
		calculated by LMTO-ASA	128		99AHYP
		Partial U5f and As4p DOS calculated by LDFT-MASW	34		00KSK
		Partial U5f DOS calculated by LDFT-ASW	32b		97SK
		Partial As4p and U6d DOS calculated by LDFT-ASW	32c		97SK
		Energy band structure calculated by APW			83STNT
		calculated by LMTO-ASA	127		99AHYP
		Energy band structure near E_F	28a		99AHYP
		Cross sections of the Fermi surface	29a		99AHYP
		Hole sheet h_{76} of the Fermi surface	29b		99AHYP
		Energy level scheme	23		83SKHH
	sc	Optical reflectivity R vs. $h\nu$ (0.03...12eV)	57		83SKHH
	sc	Optical conductivity $\sigma_{1xy}, \sigma_{2xy}$ vs. $h\nu$ (0.5...5.5eV)	58		83SKHH
	sc	Kerr ellipticity and rotation ε_K, θ_K vs. $h\nu$ (0.5...5.5eV)	60		86R
		Kerr ellipticity and rotation calculated by LSDA	30		99AHYP
	sc	XPS spectra of As3d states	61		97SHMS
	sc	XPS spectra of U4d core states	62		97SHMS
	sc	XPS spectra of U5d states	63a		97SHMS
	sc	XPS spectra of U4f core states	64		95SMIO
	sc	CFS spectra	63b		97SHMS
	sc	CIS spectra	129		85SYSM
	sc	BIS spectra at 130 K	65		95SMIO
	sc	UPS spectra taken at $h\nu$ = 104 eV	65		95SMIO
	sc	at $h\nu$ = 70 eV	66a		85SYSM
	sc	at $h\nu$ = 120 eV	66b		85SYSM
		Positron annihilation spectra	119		76RDH
	sc	Single crystal growth method			68H,85H
		General properties: $a, T_C, p_s, \chi(0)$	41		01IWMA
		Crystal structure	35		57F,71TMS, 96GWH, 01IWMA
		Lattice parameter		A	64WP2,67AD, 71TMS, 77AFWG, 80BLTH
	sc	Rhombohedral distortion angle φ = 89.93° at T = 4.2 K			75SWS
		Rel. linear thermal expansion $\Delta l/\Delta l_s$ vs. T (77…900 K)	70		71HB

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
U_3As_4 (cont.)		Relative volume V/V_0 vs. p up to 50 GPa			90GSBL, 92BDDG
		Magnetic characteristics			64TSZ
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2…1200 K)	45	F,H	71TMS
		χ_m^{-1} vs. T (200...300 K)		F	69B
	sc	χ_g^{-1} vs. T (160...300 K)			73BHDL
		Curie temperature vs. U-U distance	42		86HMD
		Magnetization σ vs. B up to 4 T at 4.2 K	44a		71TSB
	sc	for $B \parallel [111]$ σ vs. B up to 14 T	130		81TSNM
	sc	for $B \parallel [111]$ σ vs. B up to 4 T	132		77NRS
	sc	for $B \parallel [100]$ σ vs. B up to 21 T	135		81TSNM
	sc	for $B \parallel [100],[110],[111]$ σ vs. B up to 22 T	136a		80BLOY
	sc	for $B \parallel [100],[111]$ σ vs. B up to 14 T			73BHDL
	sc	for $B \parallel [100],[111]$ σ vs. B up to 16 MA/m	137		76NS
	sc	σ vs. B up to 20 T	138a		77KN
	sc	for $B \parallel [100]$ p_U vs. B up to 30 T	140		95BWHF
	sc	Angular dependence of magnetization in the (110) plane	134		69B
	sc	Critical field for $B \parallel [100]$ B_c vs. T (4.2…120 K)	136b		80BLOY
	sc	B_c vs. T (40…105 K)	139a		81TSNM
	sc	B_c vs. p up to 0.5 GPa	141		95BWHF
	sc	Magnetization jump at B_c $\Delta\sigma/\sigma_s$ vs. T (4.2…120 K)	136c		80BLOY
	sc	$\Delta\sigma/\sigma_s$ vs. $B_c(\alpha)/B_c(0)$	138b		77KN
	sc	$\Delta\sigma/\sigma_s$ vs. T (40…105 K)	139b		81TSNM
	sc	Arrott's plot for $B \parallel [111]$ σ^2 vs. B/σ	131a		81TM
		Magnetization σ vs. T (4.2...T_C)	44b		71TSB
	sc	for $B \parallel [100],[111]$ σ vs. T (4.2...230 K)			73BHDL
	sc	Reduced magnet. for $B \parallel [111]$ $\sigma/\sigma(0)$ vs. T (4.2…100 K)	133		82MKTS
	sc	$\sigma/\sigma(0)$ vs. $T^{3/4}$	78		82MKTS
	sc	Spontaneous magnetization for $B \parallel [111]$ σ_s vs. T	131b		81BRTH
		Magnetization under pressure			83FFLM
		σ vs. p at 4.2 K $d\ln\sigma/dp = -1(1)$ Mbar^{-1}			
	sc	Angular phase diagram in weak fields			81Z2
	sc	Torque curves L vs. φ at T = 60 K in B < 1.9 T	145		81Z1
	sc	L vs. φ at T = 78 K in B =1.95 T	85		73BHDL
	sc	Anisotropy constants K_1 vs. B up to 4 T	142a		79Z
	sc	$K_1^{(0)}$, $K_2^{(1)}$ vs. B up to 15 T			76Z
	sc	Anisotropy constants K_1 vs. T (4.2…170 K)	142b		79Z
	sc	K_1,K_2 vs. T (40...100 K)	143		81TSNM
	sc	K_1,K_2 vs. T (4.2...130 K)	144		80BLOY
	sc	$K_1^{(1)}$ vs. T (100...210 K)			76Z
	sc	Number of Barkhausen impulses n vs. B up to 0.4 T	146a		77FMZ
	sc	dn/dB vs. B at T = 77.4 K	146b		77FMZ
	sc	Magnetic domain pattern on (100) surface	149a		79GNM
		on (211) surface	149b		
	sc	Neutron diffraction intensities I vs. T (4.2…280 K)	147a		95SDTK
	sc	I vs. T (4.2…280 K)			74SSM
	sc	I vs. T (100…220 K)	148		81BRTH
	sc	I vs. T near T_C	147b		95SDTK

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
U_3As_4 (cont.)		Magnetic structure by neutron diffraction	37a		81BRTH
			37b		99WGH
		Calculated magnetic structure	36		00KSK
			39		80K1,80K2
		Theoretical magnetic phase diagram	40a		87HMOP
		Calculated magnetization σ vs. B	40b		87HMOP
	sc	Spin and orbital moments from polarized neutron study	43	P	99WGH
		Spin and angular moments calculated by LDA		P	97SK
		Landau approach to the magnetic structure			70DP,70P, 72PP,76PC
		Theoretical model of non-collinear magn. structure			87HMOP
		RKKY approach to magnetic behaviour			73AI
		MFA theory of phase transitions			88O
		Theory of energy excitations			90OP
		Theoretical determination of the tricritical point			81TSNM
		p-f mixing model			83STNT
		CF calculations with p-f mixing contribution		N	82TYK
		Heat capacity C_p vs. T (5…350 K)	150a		77AFWG,77WG
		C_p vs. T (250…950 K)	150b		77AFWG
		C_p vs. T (5…300 K)	152a		80BLTH
		C_p/T vs. T^2 (0.6…7)	153		01IWMA
		Magnetic heat capacity C_{magn} vs. T (5…950 K)	151a		77AFWG
		C_{magn} vs. T (5…300 K)	152b	I	80BLTH
		Magnetic entropy S_{magn} vs. T (5…950 K)	151b		77AFWG
		S_{magn}vs. T (5…300 K)	152c		80BLTH
	sintered	Electrical conductivity σ vs. T (120...1070 K)	171		64WP2
	sc	Electrical resistivity ρ vs. T (T_C...300 K)	46		81HMK
	sc	ρ vs. T (0.4...280 K)	157		01IWMA
	sc	Curie temperature T_C vs. p up to 1 GPa	159b		86HMD
	sc	Normalized electrical resistivity ρ/ρ (300 K) vs. T	154		71HB
	sc	ρ/ρ (T_C) vs. T (190...320 K)	155a		80H3
	sc	temp. derivative d[ρ/ρ (T_C)]/dT vs. T (190...320 K)	155b		80H3
	sc	d[ρ/ρ (T_C)]/dT vs. (T–T_C)/T_C in paramagnetic region	156		80H3
	sc	in B = 0.85 T ρ/ρ (T_C) vs. T (100...240 K)	172		97WH
	sc	ρ (T,p)/ρ (T_C,0) vs. T for p = 0,1.03 GPa	158		86HMD
	sc	ρ (T,p)/ρ (T_C,0) vs. T near T_C under pressure	159a		86HMD
	sc	Curie temperature from ρ (T) T_C vs. p up to 1 GPa	159b		86HMD
	sc	Electrical resistance R vs. $\alpha(B,i)$ at 78 K	161		80H1
		Electrical resistivity in B || [100] ρ vs. B up to 35 T	163		94BWHF
		ρ vs. T (180..210 K)	165		73H2,77HK
		Electrical resistance/resistivity in B || [111]			
		in weak fields R vs. T (170..210 K)	166a		77HK
		ρ vs. B up to 0.012 T at 194 K	160		77HK
		in strong fields ρ vs. T (180..210 K)	166b		73HK2
	sc	Transverse and longitudinal MR $\Delta R/R(0)$ vs. B	162		71HB
	sc	Transv. magnetoresistivity $\Delta\rho/\rho$ (0) vs. B/ρ (0) at 4.2 K	164		94BWHF
	sc	Magnetoresistivity $\Delta\rho/\rho$ (0) vs. B up to 14T at 0.45 K	167		01IWMA
	sc	$\Delta\rho/\rho$ (0) vs. $\alpha(B,i)$ at 0.45 K in 14 T	168		01IWMA

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
U_3As_4 (cont.)	sc	dHvA oscillations for $B \parallel [111]$	169a		01IWMA
	sc	FFT spectrum from dHvA data for $B \parallel [111]$	169b		01IWMA
	sc	Angular dependence of dHvA frequencies	170		01IWMA
	sc	dHvA effect studies			94IAKI
	sintered	Thermoelectric power S vs. T (120...1070 K)	171		64WP2
	poly	S vs. T (100...800 K)	112		72H
	sc	S vs. T (100...580 K)	173a		86HMD
	sc	in $B = 0.85\ T$ S vs. T (100...240 K)	172		97WH
	sc	Thermopower sign inversion temp. vs. pressure TSIT vs. p up to 0.16 GPa	173b		86HMD
	poly	Hall resistivity ρ_H vs. B up to 0.5 T at T (77...220 K)	174		72H
	poly	Eff. Hall coefficient R^* vs. magn. susceptibility χ^*	113		72H
	poly	Anomalous Hall coefficient R_s vs. T (80…450 K)	114		72H
	poly	R_s vs. ρ_{magn} (80…180 K)	175		72H
	sintered	Thermal conductivity at 300 K $\kappa = 0.006$ cal/(cm s K)			64WP2
$(U_{1-x}Th_x)_3As_4$		Lattice parameter a vs. x	176		77MBH, 79MHW1, 79MHW2
	poly	Electrical resistivity ρ vs. T (4.2...300 K)	177a		79MHW2
	poly	ρ vs. $1/T$ (4.2...100 K)	177b		79MHW2
	poly	Thermoelectric power at 300 K S vs. x	178b		79MHW2
	poly	S vs. n_H	179a		79MHW2
	poly	Hall carrier concentration n_H vs. x	178a		79MHW2
	poly	Hall carrier mobility μ_H vs. n_H	179c		79MHW2
	poly	Electron effective mass m^*/m_0 vs. n_H	179b		79MHW2
$U_3(P_{1-x}As_x)_4$		Lattice parameter a vs. x	180		70TM
		Curie temp. and paramagnetic Curie temp. T_C, Θ vs. x	181		70TM
Np_3As_4		Lattice parameter		A	73CD,82WD
	sc	Single crystal growth method			82WD
		^{237}U Mössbauer spectra at $T = 4.2...85$ K	182a		87ABFB
		Hyperfine field B_{hf} vs. T (4.2...80 K)	182b		87ABFB
		Ordered magnetic moment p_{Np} vs. T (4.2...80 K)	183		87ABFB
		Crystal field energy levels scheme	184	T	87ABFB
Th_3Sb_4		Energy band structure calculated by LDA-APW	185		90TKK
		Total and partial DOS calculated by LDA-APW	186		90TKK
		Crystal structure	11		63K
		Lattice parameter		A	65PW
	hotpressed	Electrical conductivity σ vs. T (80...1300 K)	12		65PW
	hotpressed	Thermoelectric power S vs. T (80...1300 K)	13		65PW
	hotpressed	Thermal conductivity at 300 K $\kappa = 0.0179$ cal/(cm s K)			65PW
Pa_3Sb_4		Lattice parameter		A	79HDC,86DDT
U_3Sb_4		Total DOS calculated by LMTO-ASA	27		99AHYP
		calculated by LDFT-ASW	32a		97SK
		Total DOS near E_F calculated by LMTO-ASA	28b		99AHYP
		Total and partial DOS calculated by LDFT-ASW	33		97SK
		Partial U5f and Sb5p DOS calculated by LDFT-MASW	34		00KSK
		Partial U5f DOS calculated by LDFT-ASW	32b		97SK
		Partial Sb5p and U6d DOS calculated by LDFT-ASW	32c		97SK

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
U_3Sb_4 (cont.)		Energy band structure near E_F	28a		99AHYP
		Cross sections of the Fermi surface	29a		99AHYP
		Kerr ellipticity and rotation calculated by LSDA	31		99AHYP
		General properties: a,T_C, p_s, $\chi(0)$	41		01IWMA
		Crystal structure	35		57F,71TMS, 96GWH, 01IWMA
		Lattice parameter		A	52F,64WP2, 71TMS, 77AFWG, 89SGBD
		Relative volume V/V_0 vs. p up to 25 GPa	187		89SGBD, 90GSBL, 92BDDG
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2…1200 K)	45	F,H	71TMS
		Curie temperature vs. U-U distance	42		86HMD
		Magnetization σ vs. B up to 4T at 4.2 K	44a		71TSB
	sc	for B || [100],[110],[111] p_U vs. B up to 35T at 4.2 K	193		87HMOP
	sc	for B || [111] p_U vs. B up to 6T at 4.2,78,120 K	194		89MHFV
		Arrott's plot σ^2 vs. B/σ	192a		71SHMS
		Magnetization jump and critical field for B || [111]			89MHFV
		- calculated	190		
		- measured	191		
		Magnetization σ vs. T (4.2 K...T_C)	44b		71TSB
	sc	for B || [100],[110],[111] p_U vs. T (4.2...180 K)	195		89MHFV
	sc	Spontaneous magnetization σ_s vs. T	192b		71SHMS
		Calculated magnetization σ vs. B	40b		87HMOP
		Magnetic structure by neutron diffraction			75SSM
	sc		188		96GWH
		Calculated magnetic structure	36		00KSK
		Theoretical magnetic phase diagram	40a		87HMOP
			189		89MHFV
	sc	Spin and orbital moments from polarized neutron study	43	P	99WGH
		Spin and angular moments calculated by LDA		P	97SK,97KSK1
		Orbital magnetization calculated by DFT			01TSK
		Landau approach to the magnetic structure			70P,72PP,76PC
		Theoretical model of magnetic structure			87HMOP
		RKKY approach to magnetic behaviour			73AI
		MFA theory of phase transitions			88O
		Theory of energy excitations			90OP
		p-f mixing model			83STNT
		Heat capacity C_p vs. T (5…350 K)	150a		77AFWG,77WG
		C_p vs. T (250…950 K)	150b		77AFWG
		Magnetic heat capacity C_{magn} vs. T (5…950 K)	151a		77AFWG
		Magnetic entropy S_{magn} vs. T (5…950 K)	151b		77AFWG
	sintered	Electrical conductivity at 300 K σ = 2500 $(\Omega cm)^{-1}$			64WP2
	sc	Electrical resistivity ρ vs. T (T_C...300 K)	46		81HMK
	sc	ρ vs. T (4.2...300 K)	197		81HMK

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
U_3Sb_4 (cont.)	sc	Normalized electrical resistivity in B = 0.85 T $\rho/\rho(T_C)$ vs. T (100...240 K)	198		97WH
	sc	under pressure p = 0, 1.03 GPa $\rho(T,p)/\rho(T_C,0)$ vs. T	196		86HMD
	sintered	Thermoelectric power S = –3.5 µV/K at 300 K			64WP2
	sc	S vs. T (T_C...300 K)	197		81HMK
	sc	S vs. T (100...320 K)	173a		86HMD
	sc	in B = 0.85 T S vs. T (100...240 K)	198		97WH
	sc	Thermopower sign inversion temp. vs. pressure TSIT vs. p up to 1.3 GPa	173b		86HMD
	sc	Hall resistivity ρ_H vs. B at T = 77.7,113,147.5 K	199		87HMOP
	sc	Effective Hall coefficient R^* vs. magn. susceptibility χ^*	200		87HMOP
	sintered	Thermal conductivity at 300 K κ = 0.008 cal/(cm s K)			64WP2
Np_3Sb_4		Lattice parameter		A	74LDN
Th_3Bi_4		Crystal structure	11		63K
		Lattice parameter		A	57F,82BBF
U_3Bi_4		Total DOS calculated by LMTO-ASA	27		99AHYP
		Total DOS near E_F calculated by LMTO-ASA	28b		99AHYP
		Partial U5f and Bi6p DOS calculated by LDFT-MASW	34		00KSK
		Energy band structure near E_F	28a		99AHYP
		Cross sections of the Fermi surface	29a		99AHYP
		Kerr ellipticity and rotation calculated by LSDA	31		99AHYP
	sc	Single crystal growth method			97HWG
		General properties: a,T_C, p_s, $\chi(0)$	41		01IWMA
		Crystal structure	35		57F,71TMS, 96GWH, 01IWMA
		Lattice parameter		A	71TMS,97HWG
		Magnetic characteristics			66TZ
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2…1200 K)	45	F,H	71TMS
		Curie temperature vs. U-U distance	42		86HMD
		Magnetization σ vs. B up to 4 T at 4.2 K	44a		71TSB
		Arrott's plot σ^2 vs. B/σ			71SAHM
		Magnetization σ vs. T (4.2...T_C)	44b		71TSB
	sc	Magnetic structure by neutron diffraction	188		96GWH, 97GWH
		Calculated magnetic structure	36		00KSK
	sc	Spin and orbital moments from polarized neutron study	43	P	99WGH
		Spin and angular moments calculated by LDA		P	97SK
		Theoretical model of collinear magnetic structure			87HMOP
		Theoretical model of non-collinear magnetic structure			00KSK
		Landau approach to the magnetic structure			70P,72PP
		RKKY approach to magnetic behaviour			73AI
		MFA theory of phase transitions			88O
		Theory of energy excitations			90OP
		p-f mixing model			83STNT
Np_3S_4		Lattice parameter		A	69M,76CBDD
Pu_3S_4		Lattice parameter		A	66KM,67AD, 69M,76DB

Compound	State	Crystal structure, magnetic and related properties		Figs.	Tabs.	Ref.
Pu_3S_4		Magnetic susceptibility	χ_m vs. T (4…1200 K)	202		69RD
(cont.)	sintered	Electrical resistivity	ρ vs. T (300…1200 K)	203		69R
Am_3S_4		Lattice parameter			A	70ML1
U_3Y_4		Lattice parameter		201,		70DK
Y = Se,Te				207		
U_3Se_4		Total DOS calculated by LMTO-ASA		204		99AHYP
		Energy band structure calculated by LMTO-ASA		204		99AHYP
		Kerr ellipticity and rotation calculated by LSDA and LSDA+U		206		99AHYP
		Crystal structure		35		57F,71TMS, 96GWH, 01IWMA
		Lattice parameter			A	71TMS, 75ESS, 76DB
	sc	Crystal structure refinement			A	85N2
		Magnetization	σ vs. B up to 8 T	208		78T
			σ vs. T (4.2...160 K)	209		72SMR
		Inverse magnetic susceptibility	χ_m^{-1} vs. T (100...1200 K)	210		71TMS
		Neutron diffraction study - no magn. ordering down to 77 K				73SS
	sintered	Electrical conductivity at 300 K	σ = 1530 $(\Omega cm)^{-1}$			64WP2
	sintered	Thermoelectric power at 300 K	S = –8.4 μV/K			64WP2
	sintered	Thermal conductivity at 300 K	κ = 0.0061 cal/(cm s K)			64WP2
Np_3Se_4		Lattice parameter			A	49Z2, 71ML
Pu_3Se_4		Lattice parameter			A	70ADJ,71ML
Am_3Se_4		Lattice parameter			A	70ML2, 76CBDD
		NGR spectrum at 4.2 K		211		71DLKS
U_3Te_4		Total and partial DOS calculated by LSDA and LSDA+U		205		99AHYP
		Kerr ellipticity and rotation calculated by LSDA and LSDA+U		206		99AHYP
		Crystal structure		35		57F,71TMS, 96GWH, 01IWMA
		Lattice parameter			A	54F,71BBW, 71TMS, 75ESS 76DB
		Magnetization	σ vs. B up to 8 T	208		78T
			σ vs. B at T = 4.2, 65 K			80SJ
			σ vs. T (77...175 K)			67CPBS
			σ vs. T (4.2...100 K)	209		72SMR
			σ vs. T in various B			80SJ
		Inverse magnetic susceptibility	χ_m^{-1} vs. T (100...1200 K)	210	F,H	71TMS
		RKKY approach to magnetic behaviour				73AI

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
U_3Te_4	sintered	Electrical conductivity at 300 K σ = 2370 $(\Omega cm)^{-1}$			64WP2
(cont.)	poly	Electrical resistivity ρ vs. T			63MMH
	poly	ρ vs. T (5…280 K)	212		81BJS
	sintered	Thermoelectric power at 300 K S = –7.4 μV/K			64WP2
	sintered	Thermal conductivity at 300 K κ = 0.0073 cal/(cm s K)			64WP2
Np_3Te_4		Lattice parameter		A	71ML,76DB
Am_3Te_4		Lattice parameter		A	70ML2,76CBDD
		Nuclear gamma resonance spectrum e^2qQ/h = 1870(100) MHz; IS = 29 mm/s			71DLKS
2:3 compounds					
α-U_2N_{3+x}		Phase relations vs. T by DTA method			71HI
		Thermodynamic functions			67NS1,67NS2, 70KS,98NNUK
		Dissociation pressure			64BB2
		Formation:			
0.08<x<0.40		U + N_2 (> 600°C)			64BB2,64TT, 98NNUK
0.50<x<0.72		U + NH_3 (> 300°C)			64TT,65PW, 92KS,93KM, 93UTKM, 94HKTM, 94MHMK, 95SFK
x > 0.60		UC + NH_3 (> 600°C)			93HFKM, 94KHM, 98NHNY, 66BD,73BHR
0.66<x<0.72		U + N_2 and U + NH_3 (under pressure of 200 Torr)			95SFK
		Composition-pressure diagram at 300 K	213a		64BB1,64LH,
		p-T-C diagram at 400…900°C			67NS1,68MR, 71T2,
			213b		73FT,74T, 93UTKM,95SFK, 98NNUK
	thin film	Valence band spectra	214a		01BMGH
	thin film	4f core level spectra	214b		
		Crystal structure refinement		B	48RBWM, 58RBWD,
		U atom positions	215		73MTT
x = 0.5,0.6		X-ray diffraction pattern	216a		94SFIM
x = 0...0.5		Lattice parameter vs. N/U ratio	216b		70SA, 48RBWM,64TT, 66BB,66BD, 67TH, 71T1, 74TM,81HK,
x = 0...0.72			217		94SFIM
		Positional parameters for U(1) and U(2) vs. N/U ratio	218		
		U-U distances vs. N/U ratio	219		

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
α-U_2N_{3+x} (cont.)					
x = 0.1		Positional parameters for N at 4.2 and 150 K		R	96BT
		at 300 K		R	67TH
		N atoms coordination around U atoms	220		75T
		U atoms coordination around N atoms	221		94SFIM
x = 0.1…0.6		Magnetic susceptibility χ_g vs. T (4.2…150 K)	222		75T
x = 0.1…0.6		Inv. magnetic susceptibility χ_g^{-1} vs. T (4.2…300 K)	223a		
		χ_g^{-1} vs. T (4.2…1000 K)	223b		
0.08<x<0.72		χ_g at RT, p_{eff}^2 and T_N vs. N/U ratio	224		
x = 0.18		Heat capacity C_p vs. T (4.2…300 K)	225a		66CDM
x = 0.46			225b		
U-UO_2-U_2N_{3+x}		Phase diagrams			68BLMM, 69BLM, 70BBB
		– α-U_2N_3 forms complete solid solutions with UO_2			
		– β-U_2N_3 forms no solution with oxygen			
β-U_2N_3		Formation of pure phase			68LM,70BBB
		Formation as thin film			56V
		Lattice parameters vs. T and N_2 pressure			68LM,70BBB
		Synthesis and crystal structure refinement			62TTL,66BB, 66SN,
			226	B	75MT
		Ferromagnetic properties T_C = 186(1) K			62TTL
		T_C = 235(5) K			64AJD
		T_C = 218.5 K			82MT
+15%α-U_2N_3	non-irrad.	Magnetization			87MST1
	irradiated				87MST2
		Inverse magnetic susceptibility χ_g^{-1} vs. T (4.2…300 K)	227a		72NTTK
		Magnetization ZFC σ vs. T (77…220 K)	227a		
		FC p_U vs. T (77…200 K)	227b		
	non-irrad.	Norm. electrical resistivity ρ/ρ(285 K) vs. T (120…250 K)	228		87MST1
	irradiated				87MST2
γ-Ac_2S_3		Lattice parameter		A	49Z1
η-Th_2S_3		Lattice parameters		B	49Z2, 67AD
η-U_2S_3	sc	Lattice parameters		B	49Z2, 58PF 74ESS
		Magnetization σ vs. B at T = 4.2, 41, 61 K	237a		76SWBS
		σ vs. T in B up to 12 T	238a		76SWBS
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2...1000 K)	239a		76SWBS
		χ_g^{-1} vs. T (90…290 K)			64ST
	sintered	Thermoelectric power at 300 K S = 25 μV/K			64WP2
	sintered	Electrical conductivity at 300 K σ = 1010 $(\Omega cm)^{-1}$			64WP2
α-Np_2S_3		Lattice parameters		B	69M
		^{237}Np Mössbauer absorption spectrum at 4.2 K	229	J	84TJP
β-Np_2S_3		Lattice parameters		B	68B,69M
γ-Np_2S_3		Lattice parameter		A	67M
η-Np_2S_3		Lattice parameters		B	49Z2

Compound	State	Crystal structure, magnetic and related properties		Figs.	Tabs.	Ref.
α-Pu_2S_3		Lattice parameters			B	67AD, 69M
		Magnetic susceptibility	χ_m vs. T (4…1200 K)	202		69RD
		Inv. magnetic susceptibility	χ_m^{-1} vs. T (4.2…1100 K)	230		69RD
β-Pu_2S_3		Lattice parameters			B	68BAF
γ-Pu_2S_3		Lattice parameter			A	49Z1,69M, 70ADJ
α-Am_2S_3		Lattice parameters			B	71D
β-Am_2S_3		Lattice parameters			B	72DMJ
γ-Am_2S_3		Lattice parameter			A	49Z1,49Z2,71D
α-Cm_2S_3		Lattice parameters			B	86DDT
γ-Cm_2S_3		Lattice parameter			A	68CFST
α-Bk_2S_3		Lattice parameters			B	79DHP
γ-Bk_2S_3		Lattice parameter			A	68FCST
γ-Cf_2S_3		Lattice parameter			A	68FCST
η-Th_2Se_3		Lattice parameters			B	67AD
η-U_2Se_3		Lattice parameters			B	67AD,75ESS, 75LSW,76DB
		Magnetization	σ vs. B at T = 4.2, 38, 61 K	237b		76SWBS
			σ vs. T in B = 0.2, 12 T	238b		76SWBS
		Inverse magnetic susceptibility	χ_m^{-1} vs. T (4.2...1000 K)	239a		76SWBS
			χ_g^{-1} vs. T (90…290 K)			61TS
			χ_g^{-1} vs. T (80...900 K)	240	F	67CPYM
		Heat capacity	C_p vs. T (4…300 K)	241		80LWSJ
			C_p vs. T (5…300 K)	242		75LSW
γ-Np_2Se_3		Lattice parameter			A	69M,76D, 76CBDD
		^{237}Np Mössbauer absorption spectrum at 4.2 K		231	J	84TJP
γ-Pu_2Se_3		Lattice parameter			A	69M,71ML
η-Pu_2Se_3		Lattice parameters			B	69M
γ-Am_2Se_3		Lattice parameter			A	86DDT
η-Am_2Se_3		Lattice parameters			B	79DHP
γ-Cm_2Se_3		Lattice parameter			A	86DDT
γ-Bk_2Se_3		Lattice parameter			A	86DDT
η-Bk_2Se_3		Lattice parameters			B	79DHP
γ-Cf_2Se_3		Lattice parameter			A	86DDT
U_2Te_3	sc	Single crystal growth method				95SST
($U_{2.67}Te_4$)	sc	Crystal structure refinement			A	95SSTK
	sc	Magnetization	σ vs. B at T = 4.2 K	232a		95SSTK
	sc		σ vs. T for $B \perp$ [110]	232b		95SSTK
	sc	Inverse magnetic susceptibility	χ_m^{-1} vs. T (4.2...300 K)	232c	F	95SSTK
	sc	Electrical resistivity	logρ vs. 1/T for $i \perp$[110]	233		99ST
γ-U_2Te_3		Lattice parameter			A	63MMH, 71BBW, 75ESS
		Magnetization	σ vs. B and σ vs. T T_C = 150 K			59TS,
			T_C = 38 K			72SMR,
			T_C = 70 K			80SJ

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
γ-U_2Te_3		Neutron diffraction magnetic intensity	234	A	82BRSJ
(cont.)		Heat capacity C_p vs. T (25…300 K)	235		98PT
	poly	Electrical resistivity ρ vs. T (4.2…300 K)	236		81BJS
γ-U_2Te_{3-x}		Lattice parameter vs. x		M	79S,80SJ,82SJ
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2...300 K)		M	79S,80SJ,82SJ
η-U_2Te_3		Lattice parameters		B	77SRG,81G
		Crystal structure refinement at T = 300 K (X-rays)	243		98TPLN
		at T = 1.4 K (neutrons)			01TABN
		Magnetization p_U vs. B up to 3 T at T = 5, 85 K	244a		98TPLN
		σ vs. B up to 5 T at T = 4.2 K	245		80SJ
		σ vs. T (4.2…150 K)			01TABN
		σ vs. T at B = 0.1, 0.3, 1, 2.5 T	244b		80SJ
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2...300 K)	244c	F	98TPLN
		χ_m^{-1} vs. T (4.2...1000 K)	239b		76SWBS
		Neutron diffraction intensities	247		01TABN
		Magnetic structure at 1.4 K	248		01TABN
η-U_2Te_{3-x}		Lattice parameters vs. x		M	80SJ,82SJ
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2...800 K)	246	M	82SJ
η-Np_2Te_3		Lattice parameters		B	86DDT
γ-Pu_2Te_3		Lattice parameter		A	67AJ,70ADJ
η-Pu_2Te_3		Lattice parameters		B	76DB
γ-Am_2Te_3		Lattice parameter		A	72DC
η-Am_2Te_3		Lattice parameters		B	72DC
γ-Cm_2Te_3		Lattice parameter		A	86DDT
η-Cm_2Te_3		Lattice parameters		B	76DWM
η-Bk_2Te_3		Lattice parameters		B	79DHP
3:5 compounds					
U_3S_5	sc	XPS spectra	249a		00KB
	sc	4f core level spectra	249b		00KB
		FT-IR spectroscopy			00KB
	sc	Single crystal growth method			72SES
		Lattice parameters		C	53PF,58PF, 71MZES, 72PBPG, 74EKES,74ESS, 74SR,75TGFR
	sc	Crystal structure refinement	250	C	80NP,00KB
	sc	Magnetization σ vs. B up to 4 T at T = 4.2 K	251a		95S,99ST
		σ vs. B up to 9 T at T = 4.2 K			74SR
	sc	σ vs. T (4.2... 30 K)	251b		95S,99ST
		σ vs. T at B = 0.5, 0.64, 7 T			74SR
		Inverse magnetic susceptibility χ_m^{-1} vs. T (80…750 K)	374		68GHTT
		χ_m^{-1} vs. T (30…280 K)	253		80NP
	sc	χ_m^{-1} vs. T (30…300 K)	251b	F	95S,99ST
		χ_m^{-1} vs. T (5…1000 K)	252		74SR
		χ_g^{-1} vs. T (90…290 K)			64ST
		χ_g^{-1} vs. T (100…850 K)	254		67CPYM

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
U_3S_5	sc	Electrical resistivity ρ vs. T (4.2…300 K)	255a		95S,99ST
(cont.)	sc	ρ vs. $1/T$ (5…300 K)	256		00KB
	sc	Magnetoresistivity $\Delta\rho/\rho(0)$ vs. B at 4.2 K	255b		95S,99ST
	sc	$\Delta\rho/\rho(0)$ vs. T(20…280 K)	255b		95S,99ST
Np_3S_5		Lattice parameters		C	67M,81TJPD
		^{237}Np Mössbauer resonance spectra at 4.2 and 77 K	257	J	81TJPD
	pressed	Electrical resistivity ρ vs. $1/T$ (5…300 K)	258		82BDM
U_3Se_5	pc	Single crystal growth method			72SES
		Lattice parameters		C	61K,71MZES, 72BPP,74SR, 75ESS
	sc	Crystal structure refinement	259	C	72MBW
	sc	Magnetization σ vs. B up to 5 T at T = 1.8 K	260		00TKN
	sc	σ vs. B up to 4 T at T = 4.2 K	251a		95S,99ST
	sc	σ vs. B up to 9 T at T = 4.2 K			95STK
	sc	σ vs. T (4.2... 25 K)	251b		95S,99ST
	sc	σ vs. T for $B \parallel b$ and $B \perp b$	261		00TKN
		σ vs. T at B = 0.5, 0.64, 7 T			74SR
	sc	σ vs. T at B = 0.12, 7 T			95STK
	sc	Inverse magnetic susceptibility χ_m^{-1} vs. T (25…300 K)	251b	F	95S,99ST
	sc	χ_m^{-1} vs. T (25…300 K)	262	F	95STK
		χ_m^{-1} vs. T (5…1000 K)	252		74SR
	sc	χ_m^{-1} vs. T for $B \parallel b$ and $B \perp b$	263	F	00TKN
		χ_g^{-1} vs. T (90…290 K)			61TS
	sc	Electrical resistivity $\log \rho$ vs. $1/T$ (50…300 K)	264		95STK,99ST
	sc	Magnetoresistivity $\Delta\rho/\rho(0)$ vs. T(50…300 K)	264		99ST
Np_3Se_5		Lattice parameters		C	69M,76DB
		Inverse magnetic susceptibility χ_g^{-1} vs. T (5…240 K)	265	F	76BFSW
		^{237}Np Mössbauer absorption spectrum at 4.2 K	266	J	84TJP
	pressed	Electrical resistivity ρ vs. T (4.2…300 K)	267		82BDM
U_3Te_5		Lattice parameters		C	77SRG
	sc	Crystal structure refinement at T = 300 K (X-rays)	268	C	98TPN1
		at T = 1.4 K (neutrons)		C	01TABN
		Magnetic moment p_U vs. B at T = 5 K	269a		98TPN1
		p_U vs. T (5…170 K)	269b		98TPN1
		Inverse magnetic susceptibility χ_m^{-1} vs. T (5…300 K)	269c	F	98TPN1
		Neutron diffraction intensities	270		01TABN
		Magnetic structures at 1.4 and 50 K	271		01TABN
	sc	Electrical resistivity at 300 K for $i \parallel$ [010]			
		semiconducting behaviour ρ(300 K) = 2.78 Ωcm			98TPN1
7 : 12 compounds					
Th_7S_{12}		Lattice parameters		E	74LDN
		Crystal structure refinement	272		49Z3
Th_7Se_{12}		Lattice parameters		E	53D
U_7Se_{12}		Lattice parameters		E	87B
Th_7Te_{12}		Lattice parameters		E	60GM
	sc	Crystal structure refinement	273		98TPN2

Compound	State	Crystal structure, magnetic and related properties		Figs.	Tabs.	Ref.
U_7Te_{12}		Lattice parameters			E	71BB
	sc	Crystal structure refinement		273		98TPN2
		Magnetization	p_U vs. B at T = 5 K	274a		98TPN2
			σ vs. B up to 8 T	275a		72S
			p_U vs. T (5…80 K)	274b		98TPN2
			σ vs. T in various B	275b		72S
		Inverse magnetic susceptibility	χ_m^{-1} vs. T (5…300 K)	274c	F	98TPN2
			χ_m^{-1} vs. T (120…1000 K)	276	F	72S
1:2 compounds						
α-ThP_2		Lattice parameters			D	66H
PaP_2		Lattice parameters			D	82WDH
UX_2		General properties: a, c, T_N, p_o, $\chi(0)$		277		00AWMW
		Crystal structure		278		67LTMZ, 98HCPF
		Coordination polyhedra		279a	U	72Z
		Crystal field model		279b	O	84ABM
	sc	Relative volume	V/V_0 vs. T (110...300 K)	280		77LPKM
		Néel temperature	T_N vs. U-U distance	281		92HMWF
		Magnetic susceptibility	χ_m vs. T (4.2…300 K)	282a		87T
		Inverse magnetic susceptibility	χ_m^{-1} vs. T (4.2…900 K)	282b	H	79TZ2
		Magnetic structures		283		00AWMW
		Stability of magnetic structures		284		67PS
		^{238}U Mössbauer spectroscopy				04TNNH
		Heat capacity	C_p vs. T (4.2...300 K)	285		78BFLM
	sc	Electrical resistivity for $i \parallel [100]$	ρ vs. T (4.2…280 K)	286		00AWMW
	sc	Temp. deriv. of resistivity for $i \perp c$	$d\rho/dT$ vs. T	287		78BFLM
	sc	Normalized spin disorder resistivity $\rho_s/\rho_s(300)$ vs. T/T_N		288		73HK1,72HK
		Positron annihilation spectra		289		77RDHW
UP_2	sc	Single crystal growth method				68H,85H
		General properties: a, c, T_N, p_o, $\chi(0)$		277		00AWMW
	sc	Crystal structure refinement		290		71PL,01WAWS
		Coordination polyhedra		279a	U	72Z
		Lattice parameters			D	52I,63TT, 66TLC,67AD, 74F,90GSBD
			a,c vs. T (110...275 K)	291a		77PL
		Unit cell volume	V vs. T (110...275 K)	291b		77LPKM
	sc	Relative volume	V/V_0 vs. T (110...300 K)	280		77LPKM
			V/V_0 vs. p up to 55 GPa	292	D	90GSBD, 92BDDG
		Néel temperature	T_N vs. U-U distance	281		92HMWF
		Pressure and U-U distance dependence of T_N		293		91HWFM
		Magnetic susceptibility	χ_g vs. T (85…300 K)		F	63TT
			χ_m vs. T (4.2…300 K)		F	78BFLM, 79TZ2
			χ_m vs. T (4.2…300 K)	282a		87T
	sc		χ_m vs. T (4.2…300 K)	294a		02TSKP

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
UP_2 (cont.)		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2…900 K)	282b	H	79TZ1,79TZ2
	sc	χ_m^{-1} vs. T (4.2…300 K)	294b	F	02TSKP
		χ_g^{-1} vs. T (280…800 K)	295	F	72Z
		χ_m^{-1} vs. T (4.2…900 K)	296		87T
		Magnetic structure by neutron diffraction			66TLC,
		AF-III-type (+ − − +); k = (0,0,1/2); $p \parallel c$-axis			67TLC
		at T = 77 K p_U = 2.0(1) μ_B			
		Magnetic structure	283b		00AWMW
		Stability of magnetic structures	284		67PS
		Magnetic structure analysis			67P,68P
		RKKY approach to magnetic behaviour			73AI
		Crystal field model	279b	O	84ABM
		^{31}P NMR Knight shift			67FGK,
					67ERVR
		Heat capacity C_p vs. T (22...350 K)	297		67SBT
		C_p vs. T (4.2...300 K)	285		78BFLM
	poly	C_p/T vs. T^2 for T (0.7…7 K)	298		01WAWS
	sc	Electrical resistivity for $i \parallel a$ ρ vs. T (4.2…280 K)	286		00AWMW
	sc	for $i \perp c$ and $i \parallel c$ ρ vs. T (4.2…700 K)	299		69HT
	sc	for $i \parallel a$ ρ vs. T (0.1…300 K)	300		01WAWS
	sc	Temp. deriv. of resistivity for $i \perp c$ $d\rho/dT$ vs. T	287		78BFLM
	sc	Norm. spin disorder resist. $\rho_s/\rho_s(300)$ vs. T (10...200 K)	301		73HK1
	sc	$\rho_s/\rho_s(300)$ vs. T/T_N	288		73HK1
	sc	SdH oscillations	302a		00WAMW,
					01WAWS
	sc	FFT spectrum from SdH data	302b		01WAWS
	sc	Angular dependence of SdH frequencies	302c	L	
	sc	Fermi surface from SdH data	303		
		Positron annihilation spectra	289		77RDHW
		Fermi surface model from positron anihilation	304		80DR
	sc	Thermoelectric power S vs. T (100…700 K)	305		69HAT
	sc	Hall coeff. vs. magn. susceptibility for T (230…465 K)	306		91HWFM
α-$ThAs_2$		Lattice parameters		D	66H
$ThAs_2$		Lattice parameters		D	55F,74F
$PaAs_2$		Lattice parameters		D	79CSM,
					79CSRM
		Magnetic susceptibility χ_m vs. T (5…300 K)	307		79HDC,
					78HDHD
UAs_2	sc	Single crystal growth method			68H,85H
		General properties: a, c, T_N, p_o, $\gamma(0)$	277		00AWMW
		Crystal structure	278		67LTMZ,
					98HCPF
		Coordination polyhedra	279a	U	72Z
		Lattice parameters		D	52I,67AD,
					74F
		a,c vs. T (220...300 K)	308a		77PL
		c/a vs. p up to 18 GPa	309		93GOBD
		Unit cell volume V vs. T (240...300 K)	308b		77LPKM

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
UAs_2 (cont.)	sc	Relative volume V/V_0 vs. T (110...300 K)	280		77LPKM
		V/V_0 vs. p up to 48 GPa	310	D	90GSBD, 92BDDG
		Magnetic characteristics			64TSZ
		Néel temperature T_N vs. U-U distance	281		92HMWF
		Magnetic susceptibility χ_m vs. T (4.2…300 K)	282a		87T
		χ_m vs. T (4.2…300 K)		F	78BFLM
	sc	χ_m vs. T (1.7…400 K)	311a		02TSKP
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2…900 K)	282b	H	79TZ1, 79TZ2
		χ_g^{-1} vs. T (280…940 K)		F	72Z
	sc	χ_m^{-1} vs. T (250…400 K)	311b	F	02TSKP
		Magnetic structure by neutron diffraction AF-III-type (+ − − +); k = (0,0,1/2); $p \parallel c$-axis at T = 4.2 K p_U = 1.61(11) μ_B			65O
		Magnetic structure	283b		00AWMW
		Stability of magnetic structures	284		67PS
		Magnetic structure analysis			67P,68P
		RKKY approach to magnetic behaviour			73AI
		Crystal field model	279b	O	84ABM
		Heat capacity C_p vs. T (5...350 K)	312		75WSDG
		C_p vs. T (4.2...300 K)	285		78BFLM
		C_p vs. T (300...730 K)	313		75WSDG
	poly	C_p/T vs. T^2 for T (0.7…3 K)	314		00WAWM
		^{238}U Mössbauer spectrum at 5.3 K	315		01TNNH
	sc	Electrical resistivity for $i \parallel a$ ρ vs. T (4.2…280 K)	286		00AWMW
	sc	for $i \perp c$ ρ vs. T (4.2…300 K)	317		72HK
	sc	for $i \parallel a$ ρ vs. T (0.1…300 K)	319		00WAWM
	sc	Temp. deriv. of resistivity for $i \perp c$ $d\rho/dT$ vs. T	287		78BFLM
	sc	Normalized resististivity $\rho/\rho(300)$ vs. T (80...510 K)	316		72HK
		in log-log scale	318		
	sc	Normalized spin disorder resistivity $\rho_s/\rho_s(300)$ vs. T/T_N	288		73HK1
	sc	SdH study			00WAWM, 00AWMW
	sc	FFT spectrum from SdH data	320a		00WAWM
	sc	Angular dependence of SdH frequencies	320b	L	
	sc	Fermi surface from dHvA data	321		
	sc	Thermoelectric power S vs. T (4.2…300 K)	322		02HWWK
		Positron annihilation spectra	289		77RDHW
$U(P_{1-x}As_x)_2$		Lattice parameters vs. x	323a		68TM
		T_N and Θ_p vs. x	323b		
		p_{eff} vs. x	323c		
$UP_{1.7}As_{0.3}$	sc	Magnetic susceptibility χ_m vs. T (1.7…400 K)	324a		02TSKP
	sc	Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2…400 K)	324b	F	
$UP_{1.8}As_{0.2}$	sc	Magnetoresistivity $\Delta\rho/\rho$ vs. B up to 14 T	325		98HCPF
$U(As_{1-x}Se_x)_2$		Lattice parameters vs. x			73LMZL
		Neutron diffraction at 4.2 K p_o vs. x			

Compound	State	Crystal structure, magnetic and related properties		Figs.	Tabs.	Ref.
$NpAs_2$	sc	Single crystal growth method				82WD
		Lattice parameters			D	73CD
	sc	Crystal structure refinement			D	82DMBF
		Magnetization	σ vs. B at 4.2 K	326		82BFDW
			σ vs. B at T (32…60 K)	327		
			σ vs. $T < 20$ K	329		
			σ vs. $T < 75$ K in $B < 3$ T	330		
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2…300 K)		328	F	82BFDW
		Magnetic phase diagram		331		
	sc	Neutron diffraction intensity	I vs. T (5…60 K)	332		82RBQB
	sc	Magnetic structure for $T > 18.5$ K		333		
		Magnetic form factor at 4.2 K		334		82DMBF, 82BBDF
	sc	Magnetization density map		335		82DMBF
		^{237}Np Mössbauer spectra		336		82BCAK
	pressed	Electrical resistivity	ρ vs. T (4.2…300 K)	337		81BDS
	sc	for $i \perp$ c	ρ vs. T (4.2…300 K)	338		85TBFC
	sc	in $B \perp$ c	ρ vs. T (4.2…60 K)	339		
	sc	Hall resistivity	ρ_H vs. B at 4.2 K	340a		86TBCF
	sc		ρ_H vs. T (4.2...300 K)	340b		
	sc	Anomalous Hall coefficient	R_s vs. T	340c		
		Crystal field model				82ABBB, 86AOB
$ThSb_2$		Lattice parameters			D	74F,87B
$PaSb_2$		Lattice parameters			D	86DDT
		Magnetic susceptibility	χ_m vs. T (5…300 K)	307		79HDC, 78HDHD
USb_2	sc	ARPES spectra		341		97AJAM,98AJCM
	sc	High-resolution ARPES spectra		342		97AJAM, 97AJAT
	sc	Ultrahigh-resolution ARPES spectra		343		02KIST
	sc	High-resolution ARPES study				04GDBO
		Positron annihilation spectra		289		77RDHW, 77DRHW
		Fermi surface model from positron anihilation		356		80DR
		General properties: a, c, T_N, p_o, $\gamma(0)$		277		00AWMW
		Crystal structure		278		67LTMZ, 98HCPF
		Coordination polyhedra		279a	U	72Z
	sc	Single crystal growth method				79HM, 82THJM
		Lattice parameters			D	67LTMZ,74F
			a, c vs. T (190...300 K)	344a		77LPKM
		Unit cell volume	V vs. T (190...300 K)	344b		
	sc	Relative volume	V/V_0 vs. T (110...300 K)	280		
	sc	Thermal expansion coefficient	α vs. T (5…100 K)	345		92HMWF
		Néel temperature	T_N vs. U-U distance	281		92HMWF
		Pressure and U-U distance dependence of T_N		293		91HWFM

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
USb_2 (cont.)		Magnetic susceptibility χ_m vs. T (4.2…300 K)	282a		87T
		χ_m vs. T (4.2…300 K)		F	78BFLM
	sc	χ_m vs. T (1.7…400 K)	346a		02TBSP
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2…900 K)	282b	H	79TZ1,79TZ2
		χ_g^{-1} vs. T (280…970 K)		F	72Z
	sc	χ_m^{-1} vs. T (150…400 K)	346b	F	02TBSP
		Magnetic structure by neutron diffraction			67LTMZ
		AF-III-type (+ − − +); k = (0,0,1/2); p ∥ c-axis			
		at T = 80 K p_U = 0.94(3) μ_B			
		Magnetic structure	283b		00AWMW
		Stability of magnetic structures	284		67PS
		Magnetic structure analysis			67P,68P
		RKKY approach to magnetic behaviour			73AI
		Crystal field model	279b	O	84ABM
		Heat capacity C_p vs. T (4.2...300 K)	285		78BFLM
		C_p vs. T (5...350 K)	312		75WSDG
		C_p vs. T (300...730 K)	313		
	poly	C_p/T vs. T^2 for T (2…5.3 K)	347		99AWMW
		^{238}U Mössbauer spectrum at 5.3 K	315		01TNNH
	sintered	Electrical conductivity σ vs. T (320…870 K)	358		64WP2
	sc	Electrical resistivity for i ∥ a ρ vs. T (4.2…280 K)	286		00AWMW
	sc	for i ⊥ c ρ vs. T (4.2…300 K)	317		72HK
	sc	for i ⊥ c and i ∥ c ρ vs. T (4.2…300 K)	348		92HMWF
	sc	for i ⊥ c and i ∥ c ρ vs. T (0.1…280 K)	349a		00AWMW
	sc	Anisotropy of resistivity ρ_c/ρ_a vs. T (0.1…280 K)	349b		
	sc	Temp. deriv. of resistivity for i ⊥ c dρ/dT vs. T	287		78BFLM
	sc	Normalized resistivity ρ/ρ(300) vs. T (80...510 K)	316		72HK
		in log-log scale	318		
	sc	Normalized spin disorder resistivity ρ_s/ρ_s(300) vs. T/T_N	288		73HK1
	sc	Magnetoresistivity $\Delta\rho/\rho$ vs. B ∥ [001] and B ∥ [100]	350		00AWMW
		$\Delta\rho/\rho$ vs. $\alpha(\boldsymbol{B},\boldsymbol{i})$	351		
	sc	FFT spectrum from SdH data for B ∥ [001]	352a		
		for B ∥ [100]	352b		
	sc	De Haas-van Alphen oscillations for B ∥ [001]	353a		
		for B around [100]	354a		
	sc	FFT spectrum from dHvA data for B ∥ [001]	353b		
		for B ∥ [100]	354b		
	sc	Angular dependence of dHvA frequencies	355	L	
	sc	Fermi surface from dHvA data	321		00AWMW
	sintered	Thermoelectric power S vs. T (320…870 K)	358		64WP2
	sc	S vs. T (25…300 K)	357		02TBSP
	sc	Hall coeff. vs. magn. susceptibility for T (230…465 K)	306		91HWFM
	sintered	Thermal conductivity at 300 K			64WP2
		κ = 0.0074 cal/(cm s K)			
$NpSb_2$		Lattice parameters		D	77CDW
		Magnetization σ vs. B at 4.2 K	359a		82BFDC
		σ vs. T (2…100 K)	359b		
		Inverse magnetic susceptibility χ_g^{-1} vs. T (2…300 K)	359c	F	
	pressed	Electrical resistivity ρ vs. T (4.2…300 K)	360		

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
$PuSb_2$		Lattice parameters		D	77CDW
		Inverse magnetic susceptibility χ_g^{-1} vs. T (2…300 K)	361	F	82BFD
$AmSb_2$		Lattice parameters		D	77CDW
$ThBi_2$		Lattice parameters		D	74F
UBi_2		General properties: a, c, T_N, p_o, $\chi(0)$	277		00AWMW
		Crystal structure	278		67LTMZ, 98HCPF
		Coordination polyhedra	279a	U	72Z
	sc	Single crystal growth method			82THJM
		Lattice parameters		D	67LTMZ
		a,c vs. T (150...270 K)	362a		77PL
		Unit cell volume V vs. T (150...270 K)	362b		
	sc	Relative volume V/V_0 vs. T (110...300 K)	280		77LPKM
		Néel temperature T_N vs. U-U distance	281		92HMWF
		Magnetic characteristics			66TZ
		Magnetic susceptibility χ_m vs. T (4.2…300 K)	282a		87T
		χ_m vs. T (4.2…300 K)		F	78BFLM
	sc	χ_m vs. T (1.7…400 K)	363a		02TSKP
		Inv.magnetic susceptibility χ_m^{-1} vs. T (4.2…900 K)	282b	H	79TZ1,79TZ2
		χ_g^{-1} vs. T (280…1130 K)		F	72Z
	sc	χ_m^{-1} vs. T (1.7…400 K)	363b	F	02TSKP
		Magnetic structure by neutron diffraction			67LTMZ
		AF-I-type (+ –); k = (0,0,1); p ‖ c-axis			
		at T = 80 K p_U = 2.1(1) μ_B			
		Magnetic structure	283a		00AWMW
		Stability of magnetic structures	284		67PS
		RKKY approach to magnetic behaviour			73AI
		Crystal field model	279b	O	84ABM
	poly	Heat capacity C_p/T vs. T^2 for T (1.5…6 K)	364		00AWMW
	sc	Electrical resistivity for i ‖ [100] ρ vs. T (4.2…280 K)	286		
	sc	for $i \perp c$ and i ‖ c ρ vs. T (0.1…280 K)	365a		
	sc	Anisotropy of resistivity ρ_c/ρ_a vs. T (0.1…280 K)	365b		
	sc	Norm. spin disorder resist. $\rho_s/\rho_s(300)$ vs. T (18...200 K)	301		73HK1
	sc	De Haas-van Alphen oscillations for B ‖ [001]	366a		00AWMW
		for B ‖ [100]	367a		
	sc	FFT spectrum from dHvA data for B ‖ [001]	366b		
		for B ‖ [100]	367b		
	sc	Angular dependence of dHvA frequencies	368	L	00AWMW, 00AWMS, 01WAWS
	sc	Fermi surface from dHvA data	321		00AWMW
ThS_2		Lattice parameters		D	49Z2, 67AD, 93GSBD
		Crystal structure refinement		D	84ACG
		Crystal structure under pressure up to 55 GPa	369		93GSBD
PaS_2		Lattice parameters		D	86DDT

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
α-US_{2-x}	sc	Crystal structure refinement; x = 0.18	370	D	84NL
	x = 0.1	Inverse magnetic susceptibility χ_m^{-1} vs. T (80…750 K)	374		68GHTT
		Heat capacity C_p vs. T (5...350 K)	375		70WG
		Excess heat capacity ΔC_p vs. T (5...50 K)	376b		70WG
α-US_2		Lattice parameters		D	58PF,64M, 71ESS
	sc	Crystal structure refinement		D	89BD2
		Magnetization σ vs. B up to 8 T at T = 4.2 K	371a		72SCM
		σ vs. T (4.2... 80 K) in B up to 7 T	372		72SCM
		Inverse magnetic susceptibility χ_m^{-1} vs. T (200…700 K)	373		68GHTT
		χ_m^{-1} vs. T (4.2…1000 K)	373		72SCM,73S
		χ_g^{-1} vs. T (90…290 K)			64ST
		Heat capacity C_p vs. T (12...45 K)	376a		68GW
	sintered	Electrical conductivity at 300 K σ = 120 $(\Omega cm)^{-1}$			64WP2
	sc	Electrical resistivity ρ vs. T (4.2...300 K)	377		95S,99ST
	sc	ρ vs. $1/T$ (4.2...300 K)	378		95S,99ST
	sc	Magnetoresistivity $\Delta\rho/\rho(0)$ vs. T (4.2...300 K)	379		95S,99ST
	sintered	Thermoelectric power at 300 K S = –120 µV/K			64WP2
β-US_2	sc	U4f core level XPS spectra	249b		00KB
		Lattice parameters		D	58PF,67AD, 71EES,71ESS, 74EKES,75ES
	sc	Crystal structure refinement		D	72SGWC
		Crystal structure under pressure up to 60 GPa			93GSBD
		B_0 = 155(20) GPa			
		phase transformation at 10…15 GPa			
		Inverse magnetic susceptibility χ_m^{-1} vs. T (80…750 K)	374		68GHTT
		χ_m^{-1} vs. T (4.2…1000 K)	387		73S
	sc	for $B \perp b$ and $B \parallel b$ χ_m^{-1} vs. T (4.2…300 K)	386	F	95S,99ST
		Heat capacity C_p vs. T (5...350 K)	375		70WG
	sintered	Electrical conductivity at 300 K σ = 0.01 $(\Omega cm)^{-1}$			64WP2
	sc	Electrical resistivity for $i \parallel c$ ρ vs. $1/T$ (4.2...650 K)	388		72SGWC
	sc	for $i \parallel b$ log ρ vs. T (4.2...300 K)	389a		95S,99ST
	sc	for $i \parallel b$ log ρ vs. $1/T$(4.2...300 K)	389b		99ST
	sc	Transverse magnetoresistivity for $i \parallel b$			
	sc	$\Delta\rho/\rho(0)$ vs. B up to 1 T at 4.2 K	390		99ST
	sc	$\Delta\rho/\rho(0)$ vs. T (4.2...300 K)	389a		95S,99ST
	sintered	Thermoelectric power at 300 K S = 300 µV/K			64WP2
γ-US_2		Lattice parameters		D	58PF,71ESS
		Crystal structure refinement	393	D	97KB,
	sc				96DLPN
		Magnetic moment p_U vs. B at 5 K	394a		96DLPN
		p_U vs. T (2…40 K)	394b		96DLPN
		Inverse magnetic susceptibility χ_m^{-1} vs. T (2…300 K)	394c	F	96DLPN
	sintered	Thermoelectric power at 300 K S = 5 µV/K			64WP2
	sintered	Electrical conductivity at 300 K σ = 3860 $(\Omega cm)^{-1}$			64WP2
β-NpS_2		Lattice parameters		D	84TJP
		^{237}Np Mössbauer absorption spectrum at 4.2 K	391	J	84TJP

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
PuS_{2-x}		Lattice parameters		D	66MP,67AD, 69M
PuS_2		Lattice parameters		D	67AD
		Magnetic susceptibility χ_m vs. T (4…1200 K)	202		69RD
AmS_{2-x}		Lattice parameters		D	71DJ
CmS_2		Lattice parameters		D	86DDT
BkS_2		Lattice parameters		D	86DDT
CfS_2		Lattice parameters		D	86DDT
$ThSe_2$		Lattice parameters		D	67AD, 87B
γ-$PaSe_2$		Lattice parameters		D	86DDT
α-USe_2		Lattice parameters		D	71ESS,76DB
	sc	Crystal structure refinement	380	D	88BD,89BD1
		Magnetization σ vs. B up to 8 T at T = 4.2 K	371a		72SCM
		σ vs. T(4.2... 80 K) in B up to 7 T	371b		72SCM
		Magnetic susceptibility χ_m vs. T (4.2…300 K)	381		95STK
		Inverse magnetic susceptibility χ_m^{-1} vs. T (80…700 K)	382		68GHTT
		χ_m^{-1} vs. T (4.2…1000 K)	373		72SCM,73S
		χ_m^{-1} vs. T (4.2…300 K)	381	F	95STK
		Heat capacity C_p vs. T(5...350 K)	383		70WG
	sc	Electrical resistivity for i ‖ [102] $\log\rho$ vs. T (4.2…35 K)	384		95S,95STK
	sc	ρ vs. T (4.2…300 K)	385a		95S,95STK
	sc	Transverse magnetoresistivity at 4.2 K for i ‖ [102] $\Delta\rho/\rho(0)$ vs. B up to 1 T	385b		95S,95STK
α-USe_{2-x}		Lattice parameters			66SEYK, 74ES
	sc	Crystal structure refinement		D	84NL
β-USe_2		Lattice parameters		D	67AD,71EES, 71ESS,74EKES
	sc	Crystal structure refinement	392	D	96NPTS
		Magnetization σ vs. T (4.2...20 K)	381		95STK
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2…300 K)	381	F	95STK
		χ_g^{-1} vs. T (90…290 K)			61TS
		χ_g^{-1} vs. T(80...900 K)	240	F	67CPYM
	sc	Electrical resistivity for i ‖ b $\log\rho$ vs. T (4.2…35 K)	384		95S,95STK
	sc	ρ vs. T (4.2…300 K)	385a		95S,95STK
	sc	Transverse magnetoresistivity at 4.2 K for i ‖ b $\Delta\rho/\rho(0)$ vs. B up to 1 T	385b		95S,95STK
γ-USe_2		Lattice parameters		D	71ESS,76DB
		Crystal structure refinement		D	97KB,96DLPN
		Magnetic moment p_U vs. B at 5 K	395a		96DLPN
		p_U vs. T (2…40 K)	395b		96DLPN
		Inverse magnetic susceptibility χ_m^{-1} vs. T (2…300 K)	395c	F	96DLPN
$PuSe_{2-x}$		Lattice parameters		D	66MP,67AD, 69M
$AmSe_{2-x}$		Lattice parameters		D	71DJ
$CmSe_2$		Lattice parameters		D	86DDT
$BkSe_2$		Lattice parameters		D	86DDT
$CfSe_2$		Lattice parameters		D	86DDT

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
$ThTe_2$		Existence (?)			54DS
UTe_2		Lattice parameters		D	70KJ,75ES, 79KSG, 82PSCK 92BNSM
		Crystal structure refinement	396	D	88BD
	sc		398	D	97S2
	sc	Coordination polyhedra of U atoms	397		96S3,97S2
	sc	Relative lattice parameters vs. T (10...293 K)	399		96S3,97S2
	sc	vs. T (118...573 K)	400		96S3
		Relative interatomic distances vs. T (118...573 K)	401		96S3
		Positional parameters vs. T (118...573 K)	402		96S3
		ELF maps	403		97S2
		Magnetic susceptibility χ_m vs. T (77…600 K)		F	82PSCK
		Inverse magnetic susceptibility χ_g^{-1} vs. T (4.2…300 K)	404	F	79NT
		χ_m^{-1} vs. T (100…500 K)	405		67CPYM
	sc	χ_m^{-1} vs. T (90…280 K)			68PCBE
		χ_m^{-1} vs. T (4.2…1000 K)	405		72S,73S
	sc	Electrical resistivity for $i \parallel [100]$ ρ vs. T (4.2…300 K)	406		95S,99ST
$U(Se_{1-x}Te_x)_2$		Lattice parameters		K	82PSCK
		Magnetization for x = 0.12, 0.35 σ vs. T	407		96NPTS
		Magnetic susceptibility χ_m vs. T (77…600 K)		K	82PSCK
$NpTe_{2-x}$		Lattice parameters		D	82BFDC
X = 0.2		Inverse magnetic susceptibility χ_g^{-1} vs. T (4.2…300 K)	408a	F	82BFDC
	pressed	Electrical resistivity ρ vs. T (4.2…300 K)	409		82BFDC
$NpTe_2$		Lattice parameters		D	82BFDC
		Inverse magnetic susceptibility χ_g^{-1} vs. T (4.2…300 K)	408b	F	82BFDC
$PuTe_{2-x}$		Lattice parameters		D	70ADJ
$AmTe_2$		Lattice parameters		D	72D,79BDH
$CmTe_2$		Lattice parameters		D	76DWM
$BkTe_2$		Lattice parameters		D	86DDT
$CfTe_2$		Lattice parameters		D	86DDT
2 : 5 compounds					
Th_2S_5	sc	structure refinement	410	E	80N,82NP
U_2S_5	sc	Lattice parameters		E	69M,80N
		Inverse magnetic susceptibility χ_m^{-1} vs. T (4.2…900 K)	411	F	80N
Np_2S_5		Lattice parameters		E	69M
Th_2Se_5		Lattice parameters		E	60GM,80N
		Crystal structure refinement			99KB
Np_2Se_5		Lattice parameters		E	82TPW
		Inverse magnetic susceptibility χ_g^{-1} vs. T (5…250 K)	412	F	82TPW
		^{237}Np Mössbauer study			82TPW
U_2Te_5		Lattice parameters		E	92BNSM
	sc	Crystal structure refinement	413	E	96S2,97TPPN
		Magnetic moment p_U vs. B at 5 K	414a		97TPPN
		Inverse magnetic susceptibility χ_m^{-1} vs. T (5…300 K)	414b	F	97TPPN
	sc	Electrical resistivity ρ vs. T (80…280 K)	415a		97TPPN
	sc	$\log \rho$ vs. $1/T$ (80…150 K)	415b		97TPPN

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
1 : 3 compounds					
UY_3		Crystal structure	416		75FBK,86N, 87NZRL
		Inverse magnetic susceptibility χ_m^{-1} vs. T (5…300 K)	417	F	86N
		χ_m^{-1} vs. T (4.2…950 K)	418		76S
US_3		Lattice parameters		E	58PF,74EKES,
	sc				74ESS,76S
		Crystal structure	416		75FBK,86N, 87NZRL
		Inverse magnetic susceptibility χ_m^{-1} vs. T (5…300 K)	417	F	86N
		χ_m^{-1} vs. T (4.2…950 K)	418		76S
		χ_m^{-1} vs. T (80…750 K)	420		68GHTT
		χ_g^{-1} vs. T (90…290 K)			64ST
	sc	Magnetic susceptibility χ_m vs. T (2…100 K)	419		86N
		Heat capacity C_p vs. T (12...40 K)	376a		68GW
		C_p vs. T (5...350 K)	421		68GW
	sc	Raman spectra at T = 7 and 300 K	422	W	85ZNRM, 86NZRN, 87NZRL
	sc	Raman spectra at T = 7…300 K	423		85ZNRM, 86NZRN, 87NZRL
	sc	EPR of impurities			83BSJS
NpS_3		Lattice parameters		E	69M,82T
		Inverse magnetic susceptibility χ_g^{-1} vs. T (5…280 K)	424		81TPGD
		^{237}Np Mössbauer absorption spectrum at 4.2 K	425	J	84TJP
$ThSe_3$		Lattice parameters		E	80N
USe_3		Lattice parameters		E	74ES,76S
		Crystal structure	416		75FBK,86N, 87NZRL
	sc	Crystal structure refinement		E	84BMR
		Inverse magnetic susceptibility χ_m^{-1} vs. T (5…300 K)	417	F	86N
	sc	χ_m^{-1} vs. T (4.2…300 K)	427b	F	95S
		χ_m^{-1} vs. T (4.2…950 K)	418		76S
		χ_m^{-1} vs. T (80…770 K)	428		68GHTT
		χ_g^{-1} vs. T (90…290 K)			61TS
	sc	Magnetic susceptibility χ_m vs. T (2…100 K)	426		86N
	sc	χ_m vs. T (4.2…300 K)	427a		95S
	sc	Electrical resistivity for $i \perp c$ at 300 K: ρ_{RT} = 6.9 Ωcm			95STK
	sc	Raman spectra at T = 10, 300 K	429	W	86NZRN, 87NZRL
$NpSe_3$		Preparation method			73DDJC
		Lattice parameters		E	69M,76D,80T
		Inverse magnetic susceptibility χ_m^{-1} vs. T (5…300 K)	430	F	76BFSW
	pressed	Electrical resistivity ρ vs. $1/T$ (100…300 K)	431		82BDM
		^{237}Np Mössbauer absorption		J	84TJP
$ThTe_3$		Lattice parameters		E	60GM

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
UTe_3		Lattice parameters			71ESS,75ES
		Inverse magnetic susceptibility χ_m^{-1} vs. T (5…300 K)	417	F	86N
		χ_m^{-1} vs. T (4.2…950 K)	418		76S
α-UTe_3		Single crystal growth			96S1
		Lattice parameters		E	71BBW,76S
		Crystal structure	416		75FBK,86N, 87NZRL
				E	92BNSM
	sc	Crystal structure refinement	433		97S2
			432		01PBBK
		ELF maps	434		97S2
	sc	χ_g^{-1} vs. T (4.2…300 K)	436	F	82JSB
	sc	Magnetic susceptibility χ_m vs. T (2…20 K)	435		86N
	poly	Electrical resistivity ρ vs. $1/T$ (20…200 K)	437		81BJS
	sc	ρ vs. T (5…300 K)	438		00TKN
	pressed	Electrical conductivity σ vs. T (5…300 K)	439		01PBBK
	pressed	Thermoelectric power S vs. T (80…300 K)	439		01PBBK
	sc	Inverse g-shift of EPR line δg^{-1} vs. T (10...130 K)	440		83BSJS
	sc	Raman spectra at T = 10, 77 K	441	W	86NZRN, 87NZRL
β-UTe_3	sc	Crystal structure	442	E	89NL, 92BNSM,97S1
			432		01PBBK
	sc	Magnetization σ vs. B at 2.5 K	443a		89NL
	sc	Inverse magnetic susceptibility χ_m^{-1} vs. T (2…300 K)	443b	F	89NL
	sc	Electrical resistivity ρ vs. T (5…300 K)	444		00TKN
$NpTe_3$		Preparation method			74D
		Lattice parameters		E	69M,84TJP
		Inverse magnetic susceptibility χ_g^{-1} vs. T (25…280 K)	445	F	76BFSW
		^{237}Np Mössbauer absorption spectrum at 77 K	446	J	84TJP
$PuTe_3$		Preparation method			74D
		Lattice parameters		E	73D,86DDT
		Inverse magnetic susceptibility χ_g^{-1} vs. T (5…215 K)	447		76BFSW
$AmTe_3$		Lattice parameters		E	86DDT
$CmTe_3$		Lattice parameters		E	76DWM
$BkTe_3$		Lattice parameters		E	79DHP
Others					
Th_5Bi_3		Lattice parameters		C	82BBF
$UTe_{3.38}$		Lattice parameters		E	67SEY, 71BBW,76S
		Magnetization σ vs. B at 4.2 and 61 K	448		76S
		Inverse magnetic susceptibility χ_m^{-1} vs. T (5…1100 K)	449		76S
UTe_5		Lattice parameters		E	84N2,92BNSM
	sc	Crystal structure refinement	450	E	85N1
		Magnetization σ vs. B at 5 K and 20 K	451a		84N2
		Inverse magnetic susceptibility χ_m^{-1} vs. T (5…300 K)	451b	F	84N2

Compound	State	Crystal structure, magnetic and related properties	Figs.	Tabs.	Ref.
Th_2P_{11}		Lattice parameters		E	80VWN
ThP_7		Lattice parameters		E	86VV
Appendix - Phase diagrams					
Th-N		Phase diagram			75H
Th-N-O		Phase stability diagram			87UKM
U-N		Phase diagram-experimental	452		75H,97O
		-calculated	453		00CFC
U-Sb		Phase diagram			59BD
Th-Bi		Phase diagram	454		82BBF
U-Bi		Phase diagram			81CAA
Th-Se		Phase diagram			52DSM
An-Y		List of U, Np, Pu and Am chalcogenides		G	76DB
U-Y		Crystal structure data analysis			84N1
U-Te		Phase diagram	455		92BNSM, 91SNB
		Crystal structure data analysis			91SNB