Electronic Supplementary Information for Dalton Transactions

Electronic Supplementary Information

The "Magic" Electronic State of High–T_C Cuprate Superconductors

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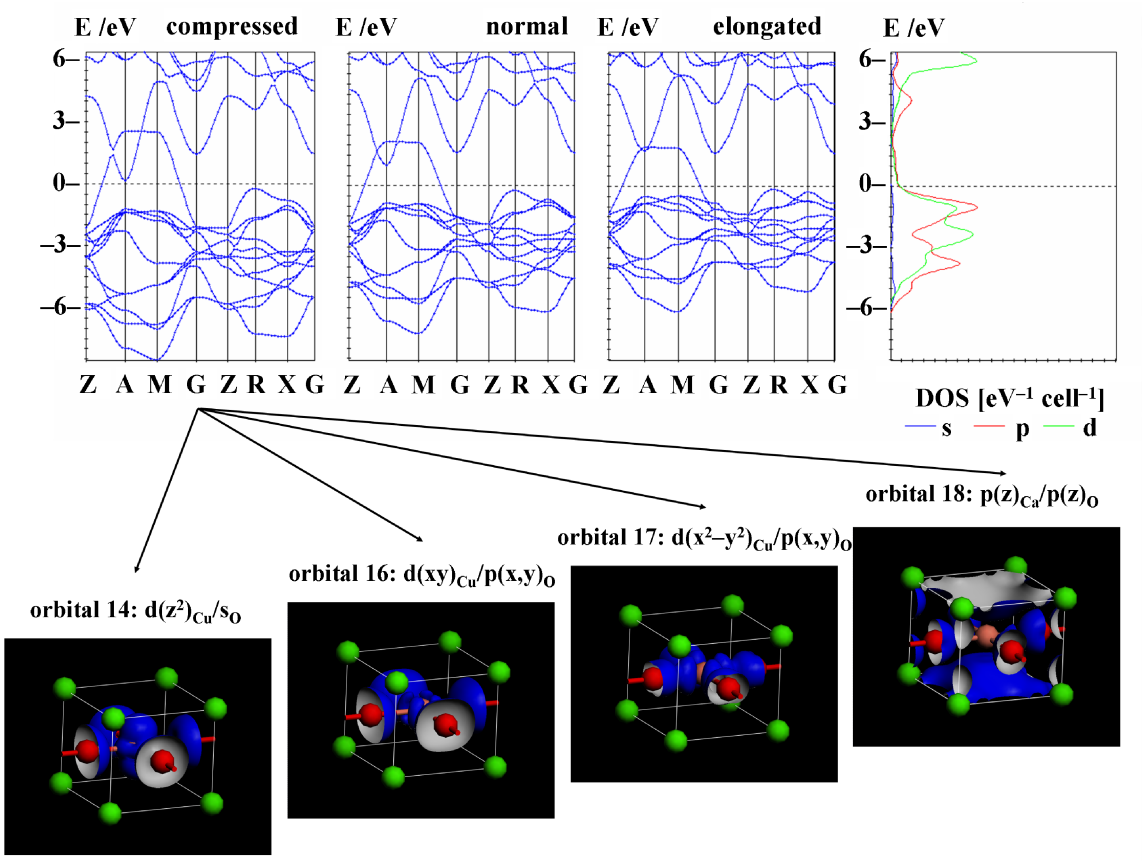
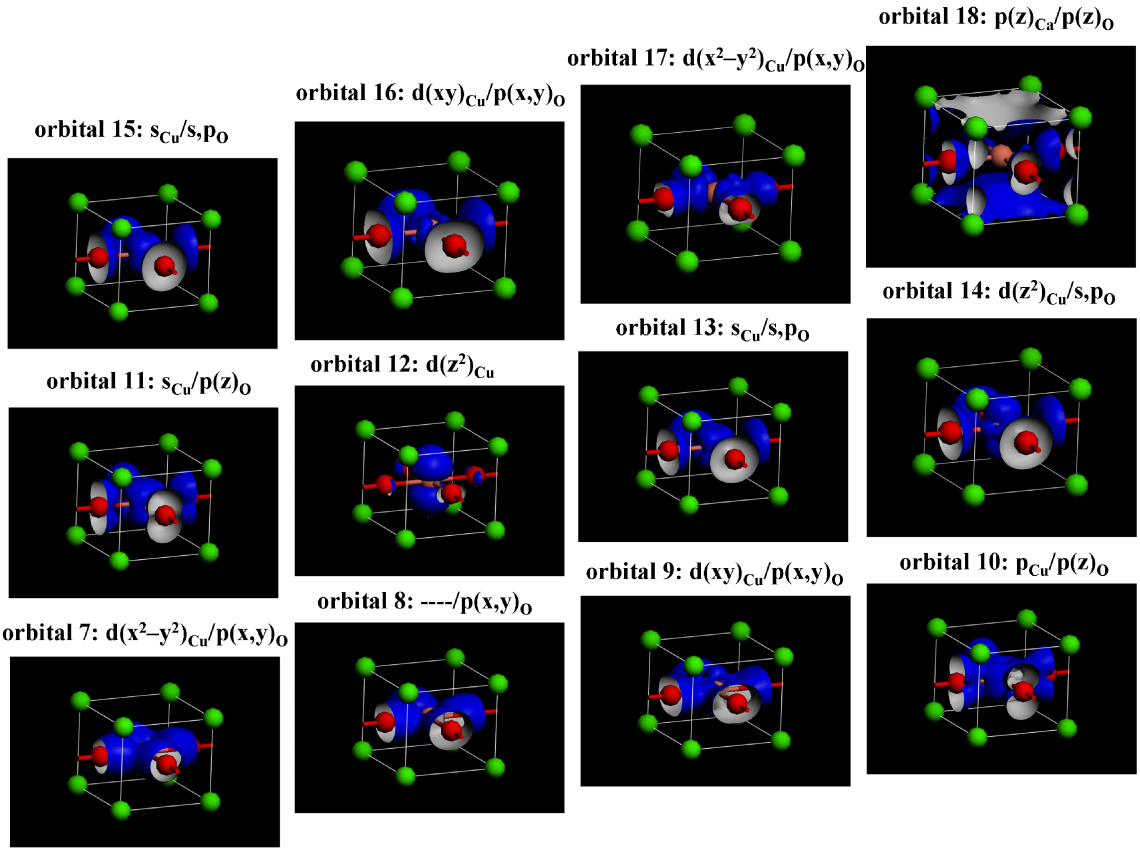
Contents

(a) All contours of the electron density are shown for isovalue of **0.02 e Å^{-3}**.
(b) Wherever applicable, the unit cell vectors (1., 2.) have been modified by **±5%** with respect to experimental values. This allows for analyzing effects of a modest external pressure.
(c) Wherever applicable, the intra-sheet Cu–O bond distances (3., 4.) have been modified by **±5%** with respect to the experimental value (1.927 Å). This allows for analyzing effects of a given normal vibration (classical amplitude of vibrations is typically 10% of the equilibrium bond length).

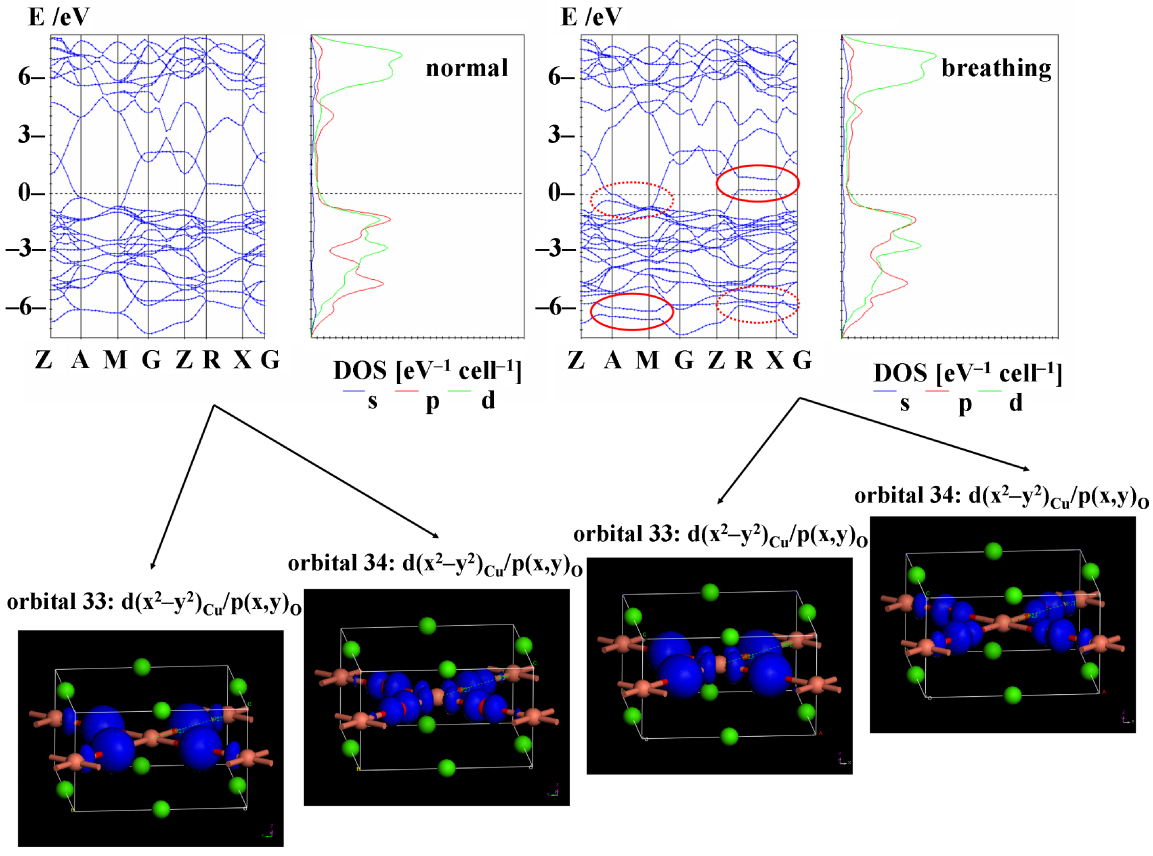
1. Influence of the unit cell vector, a=b, on the electronic band structure of $CaCuO_2$ (spin–unpolarized GGA/PBE view).



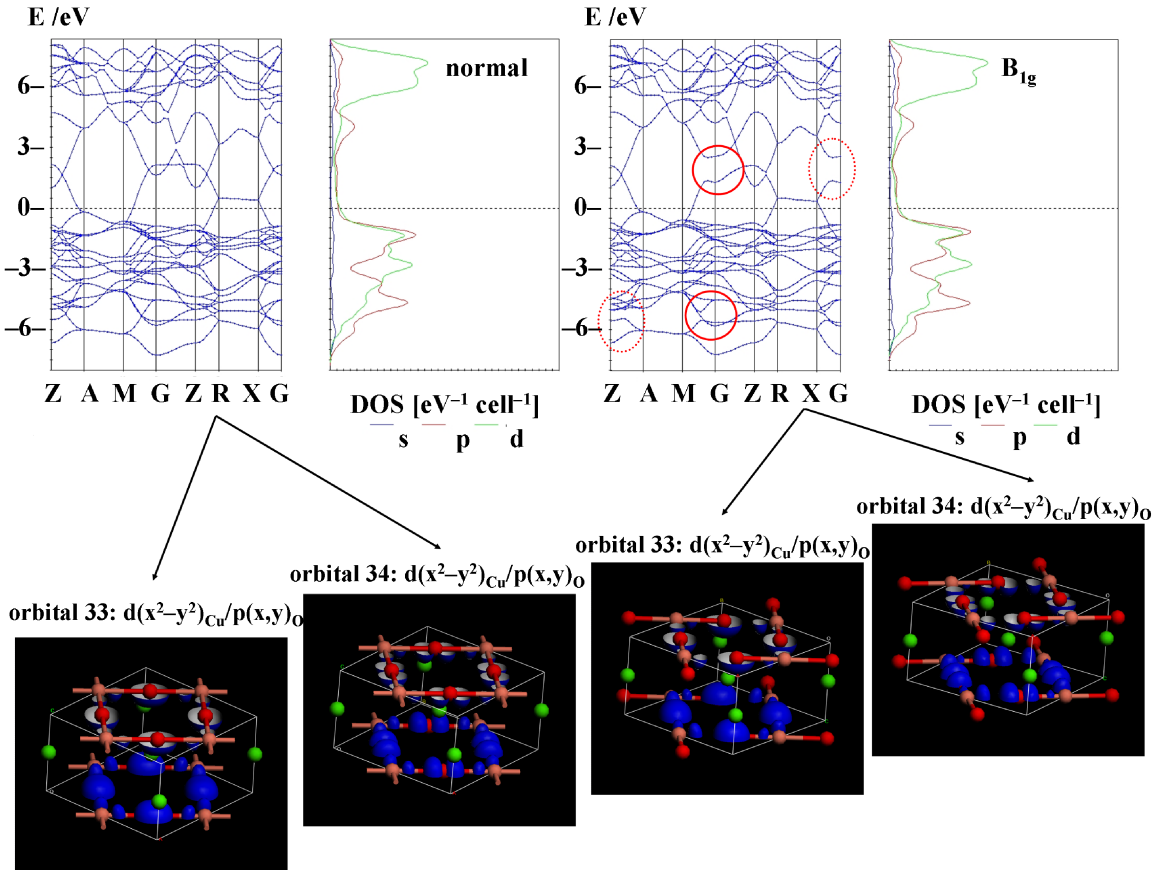
2. Crystal orbitals of $CaCuO_2$ at a slightly compressed unit cell vector a=b (95% of the experimental value) (spin–unpolarized GGA/PBE view).



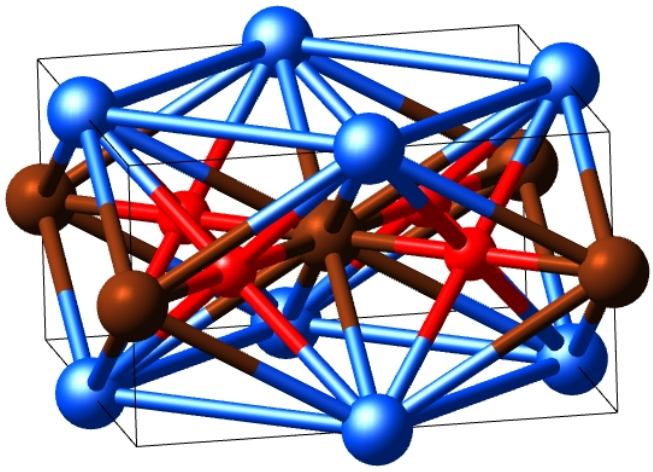
3. Influence of the breathing (disproportionation–driving) mode on crystal orbitals of $CaCuO_2$ (spin–unpolarized GGA/PBE view).



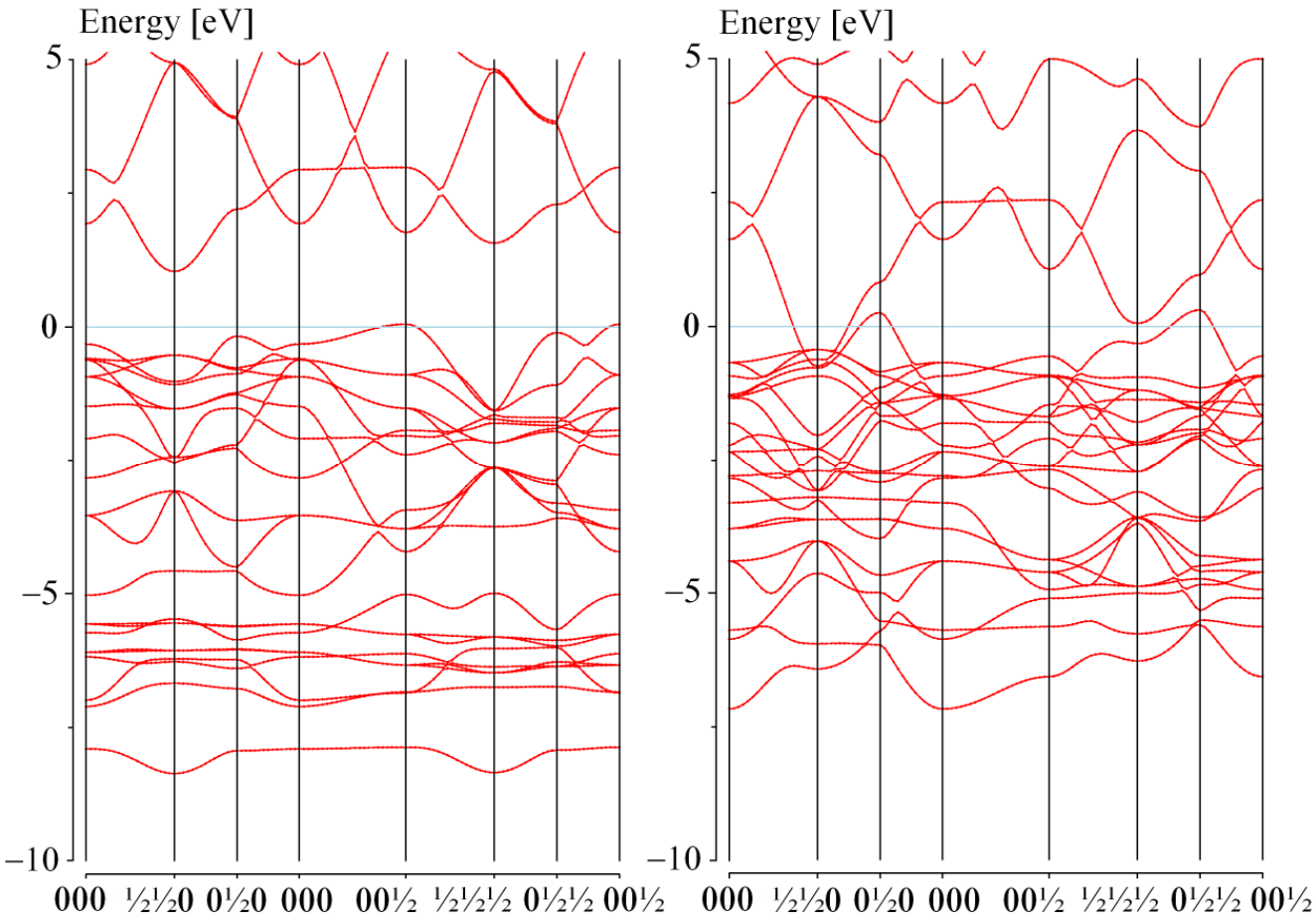
4. Influence of the Q mode on crystal orbitals of $CaCuO_2$ (spin–unpolarized GGA/PBE view).



5. Influence of the breathing (disproportionation–driving) mode on the electronic band structure of $CaCuO_2$ (spin–polarized LSDA+U view, J=1 eV, U_{Cu}=10.5 eV, U_O = 4 eV).

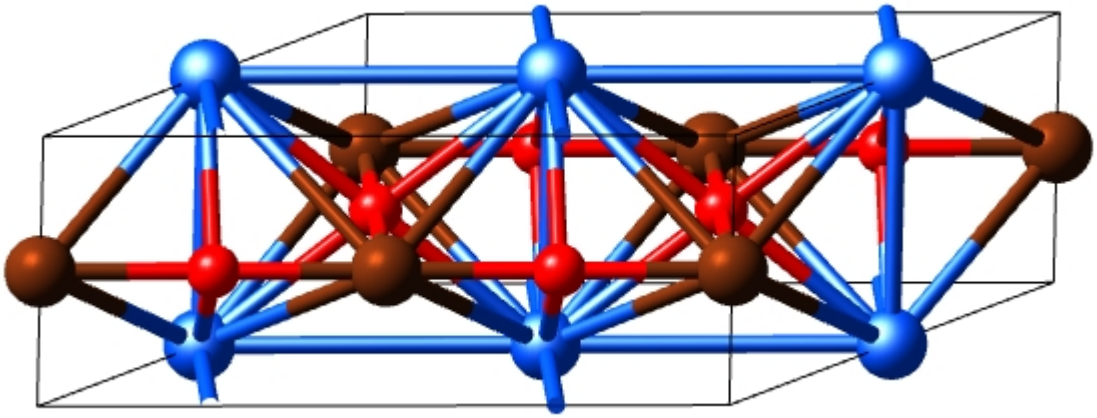


P4mmm supercell selected for this calculation

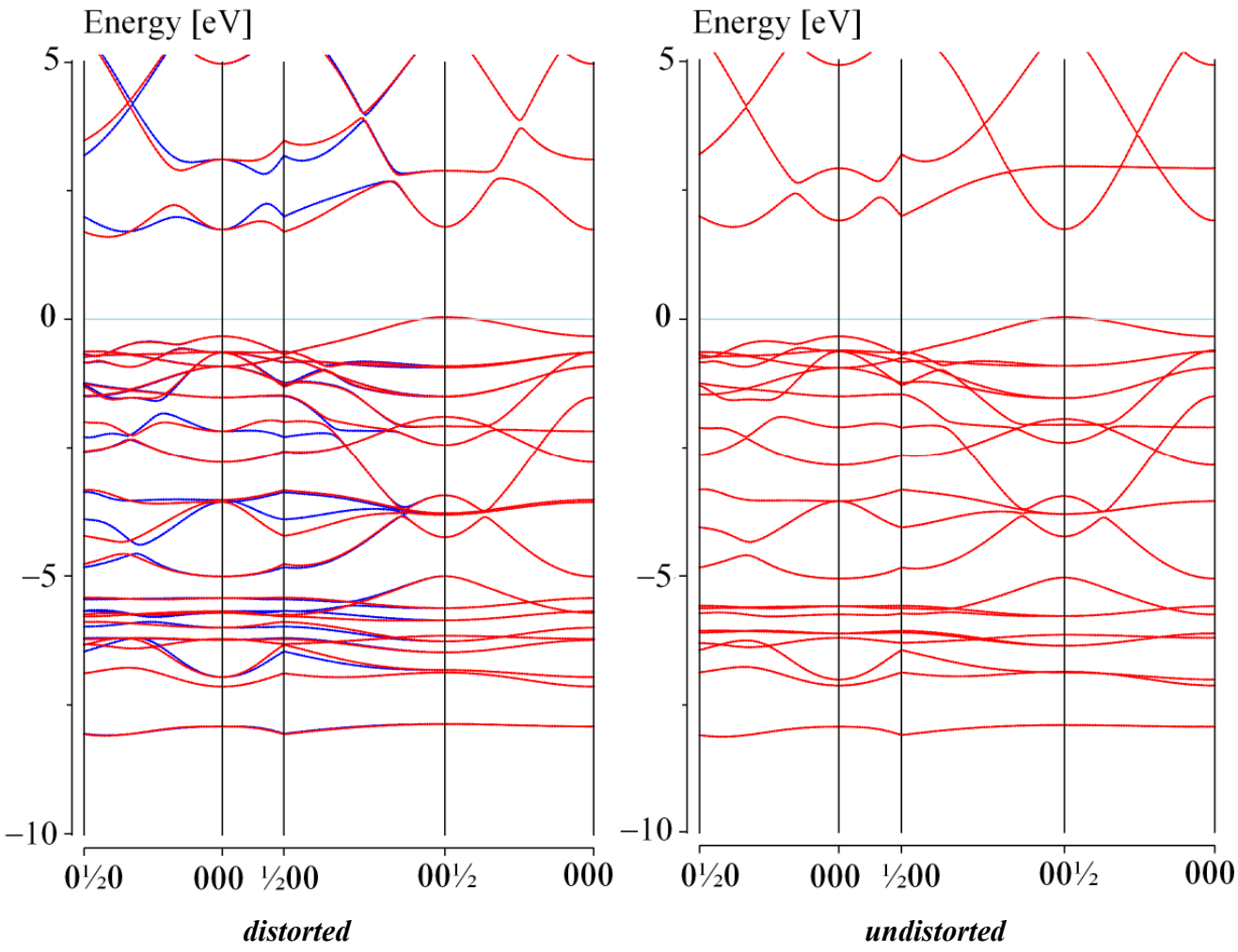


undistorted ***distorted***

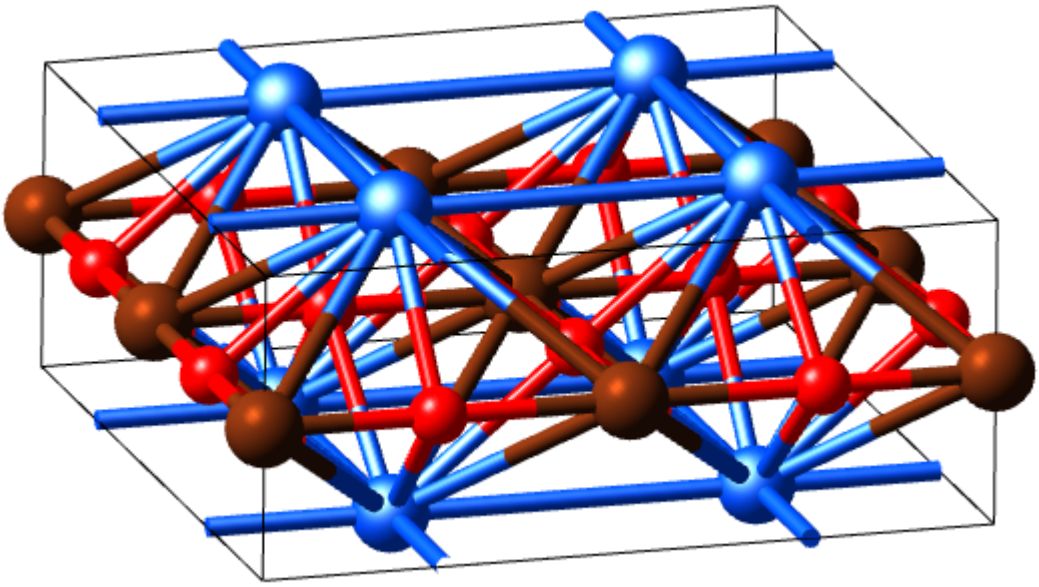
6. Influence of the Q mode on the electronic band structure of $CaCuO_2$ (spin–polarized LSDA+U view, J=1 eV, U_{Cu}=10.5 eV, U_O = 4 eV).



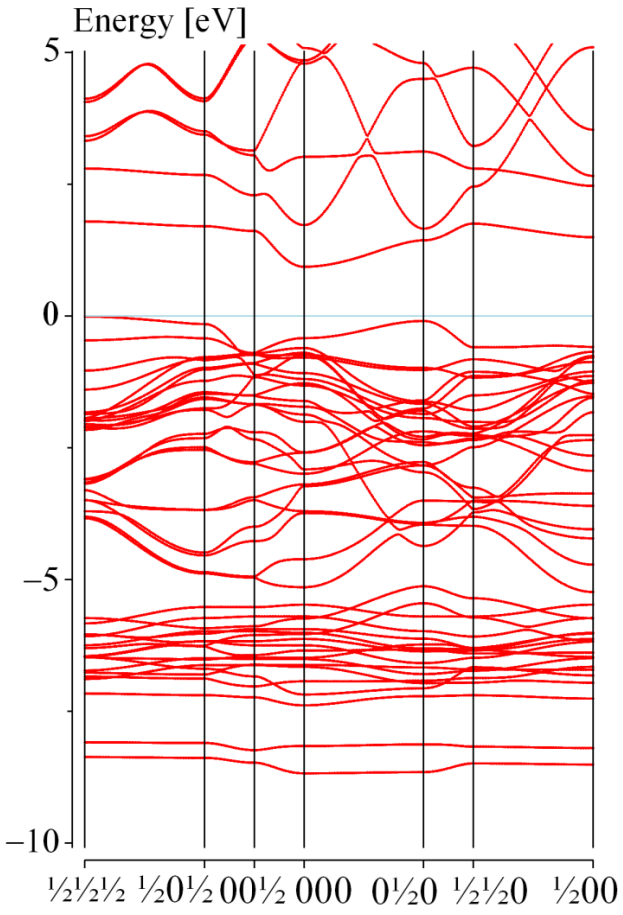
primitive cell of the Cmmm supercell selected for this calculation



7. Influence of the half–breathing mode on the electronic band structure of $CaCuO_2$ (spin–polarized LSDA+U view, J=1 eV, U_{Cu}=10.5 eV, U_O = 4 eV).



the Pmmm supercell selected for this calculation



distorted ***undistorted***

8. Table containing numerical data used for drawing Figure 1.

Legend: (i) main types of OCSs are marked in blue (for ex. **Tl(Sr)**); (ii) distinct families of OCSs are marked in gray (for ex. (Tl-1201) Tl(SrLa)2CuO5); (iii) entries in green (for ex. $TlSr_2CaCu_2O_7$) correspond to families, which have been used while preparing Fig.1; (iv) entries in blue (for ex. $TlSr_2CaCu_2O_{7-x}$) correspond to various alternative data for certain OCSs, usually corresponding to non-optimally doped systems; they have not been used for Fig.1; (v) entries in red are incomplete, doubtful, or they do not fulfill all conditions (1-5) imposed in drawing of the Fig.1 (see paper) and they have not been used, either.

Tl(Sr)

01.(Tl-1201) Tl(SrLa)2CuO5

Formula	Group	T_C	R(Cu–O)	Temperature	Pressure	Method	Lit.	Notes
$Tl(Sr_{1,0}La_{1,0})CuO_5$	P4/mmm	40 K (susc)	1.885 Å	293 K	1 bar	X-ray powder diff	[032]	

04.(Tl-1212) TlSr2CaCu2O7

$TlSr_2CaCu_2O_7$	P4/mmm	73 K (susc)	1,898 Å	300 K	?	X-ray powder diff	[322]	
$TlSr_2CaCu_2O_{7-x}$	P4/mmm	75 K	?	?	?	neutron powder diff	[012]	after reduction in argon
$TlSr_2CaCu_2O_7$	P4/mmm	47 K (zero)	1,897 Å	?	?	X-ray powder diff	[227]	

08.(Tl-1302) TlSr2Cu2O7

$Tl(Sr_{2,4}Nd_{0,6})Cu_2O_7$	P4/mmm	95 K (susc)	1,9178 Å	296 K	?	X-ray powder diff	[323]	Cu-O = a/2

02.(Tl-2233) Tl2Sr2(Ca2La)Cu3O11

$Tl_2Sr_2(Ca_2La_1)Cu_3O_{11}$	P4/mmm	76 K (zero)	1,901 Å	?	?	X-ray powder diff	[142]	

94.(Tl-2243) Tl2Sr2(CaLa)4Cu3O12

$Tl_2Sr_2(Ca_2La_2)Cu_3O_{12}$	P4/mmm	28 K (zero)	1,899 Å	?	?	X-ray powder diff	[142]	

95.(Tl-4476) Tl2Sr2(CaLa)3,5Cu3O12

$Tl_2Sr_2(Ca_2La_{1,5})Cu_3O_{11,5}$	P4/mmm	43 K (zero)	1,901 Å	?	?	X-ray powder diff	[142]	

Tl(Ba)

03.(Tl-1212) TlBa2CaCu2O7

$TlBa_2(Ca_{0,82}Tl_{0,18})Cu_2O_7$	P4/mmm	103 K (susc)	1,929 Å	293 K	1 atm	single cryst neutron	[021]	no Cu-O chains

05.(Tl-1223) TlBa2Ca2Cu3O9

$Tl_1Ba_2Ca_2Cu_3O_{9-x}$	P4/mmm	121 K (susc)	~1,925 Å	293 K	1 atm	single crystal X-ray	[035]	average value a/2; annealing N_2
1:3 Tl-1223/Tl-2223	I4/mmm	124,6 K	1,924(2) Å	?	?	X-ray powder diff	[207]	pure 1223 phase
06.(Tl-1234) TlBa2Ca3Cu4O11								
$Tl_1Ba_2Ca_3Cu_4O_{12}$	P4/mmm	114 K (susc)	1,924(9) Å	293 K	?	X-ray powder diff	[062]	two $[CuO_2]$ layers
07.(Tl-1245) TlBa2Ca5Cu5O13								
$TlBa_2Ca_5Cu_5O_{13}$	P4/mmm	105 K	1,9253(1) Å	?	?	X-ray powder diff	[261]	Cu-O = a/2
09.(Tl-1402) Tl(BaLa)4Cu2O9								
$Tl(BaLa)_4Cu_2O_9$	I4/mmm	42 K (susc)	1,9055(2) Å	296 K	?	X-ray powder diff	[326]	after annealing; Cu-O = a/2
10.(Tl-2201) Tl2Ba2CuO6								
$(Tl_{1,85}Cu_{0,15})Ba_2CuO_6$	I4/mmm	110 K (susc)	1,9343(3) Å	293 K	1 atm	single crystal X-ray	[036]	
$Tl_2Ba_2CuO_6$	Fmmm	90 K (susc)	1,93712(7) Å	?	?	X-ray powder diff	[094]	Cu-O = 0,25 $\sqrt{(a^2+b^2)}$
$Tl_2Ba_2CuO_6$	Fmmm	93 K	?	?	?	powder neutron diff	[081]	possibility of I4/mmm
11.(Tl-2212) Tl2Ba2CaCu2O8								
$Tl_2Ba_2CaCu_2O_8$	I4/mmm	112 K (susc)	1,9277(3) Å	293 K	?	single-cryst. X-ray	[139]	
$Tl_{1,85}Ba_2CaCu_2O_{8-x}$	I4/mmm	114 K	1,92971(5) Å	?	?	x-ray/n powder diff	[118]	Cu-O = a/2; after annealing 98 K
$Tl_{1,92}Ba_2\ Ca_{1,08}Cu_2O_8$	I4/mmm	98 K (zero)	1,9272(1) Å	?	?	X-ray powder diff	[106]	Cu-O = a/2
$Tl_2Ba_2CaCu_2O_8$	I4/mmm	100,6 K (zero)	1,92 Å	?	?	X-ray powder diff	[113]	a/2 = 1,924 Å
12.(Tl-2234) Tl2Ba2Ca3Cu4O12								
$Tl_2Ba_2Ca_3Cu_4O_{12}$	I4/mmm	109 K (susc)	1,925(1) Å	293 K	?	neutron powder diff	[057]	freshly prepared
13.(Tl-2223) Tl2Ba2Ca2Cu3O10								
$Tl_2Ba_2CaCu_3O_{10}$	I4/mmm	125 K (zero)	1,9252(3) Å	293 K	?	single crystal X-ray	[180]	$T_{c\ (onset)}$ = 140 K
$Tl_2Ba_2Ca_2Cu_3O_{10}$	I4/mmm	127 K	1,9258(1) Å	?	?	neutron powder &	[058]	annealing 820°C O_2

$(Tl_{1,72}Cu_{0,28})Ba_2(CaTl)_2Cu_3O_{10}$	I4/mmm	124,5 K	1,9259(1) Å	?	?		[058]	origin of the T_C value unclear

17.(Tl-1112) TlBaCaCu2O5,5

$TlBaCaCu_2O_{5,5}$	I4/mmm	120 K (zero)	1,921 Å	?	?	X-ray powder diff	[361]	Cu-O = a/2; annealing O_2

96.(Tl-5526) Tl5Ba5Ca2Cu6Ox

$Tl_5Ba_5Ca_2Cu_6O_x$	I4/mmm	106 K (zero)	1,931 Å	?	?	single crystal X-ray	[362]	Cu-O = √/4; 0,24(4) K/kbar

Bi(Sr)

14.(Bi-2201) Bi2Sr2CuO6

$Bi_2Sr_2CuO_6$	Amaa	83 K (zero)	1.900(2) Å	293 K	1 atm	single-crystal X-ray	[004]	90 K (onset)

85.(Bi-2223F) Bi2Sr2Ca2Cu3O8

$Bi_2Sr_2Ca_2Cu_3O_8F_4$	A2aa	75 K (susc)	1,912 Å	?	?	neutron powder diff	[271]	two layers; T_c = 105 Bi-2223

16.(Bi-2223) Bi2Sr2Ca2Cu3O10

$Bi_{2,1}Sr_{1,9}Ca_2Cu_3O_{10+x}$	I4/mmm	108 K (susc)	1,914(1) Å	?	?	single crystal X-ray	[121]	annealing O_2 600ºC
$Bi_2Sr_2Ca_2Cu_3O_{10}$	A2aa	106 K (susc)	1,913 & 1,94	?	?	neutron powder diff	[271]	two layers

15.(Bi-2212) Bi2Sr2CaCu2O8

$Bi_2Sr_2(Sr,Ca)Cu_2O_8$	Amaa	91 K (zero)	1,911(2) Å	?	?	single crystal X-ray	[182]	116 $K_{(onset)}$; Cu-O=$\sqrt{2x^2/4}$
$Bi_{2,09}Sr_{1,90}Ca_{1,00}Cu_2O_{8,22}$	Cc	90 K (onset)	1,94 Å	293 K	?	single crystal X-ray	[089]	average Cu-O distance
$Bi_{2,2}Sr_2CaCu_2Li_{0,4}O_x$	?	100,9K (onset)	?	?	?	?	[181]	94,1 K (zero)

18.(Bi-4334) Bi4Sr3Ca3Cu4O16

$Bi_4Sr_3Ca_3Cu_4O_{16}$	tetragonal	70 K (zero)	1,899 Å	?	?	X-ray diffraction	[363]	$T_{c\,(onset)}$ = 80 K

19.(Bi-4413) Bi4Sr4CaCu3O14

$Bi_4Sr_4CaCu_3O_{14}$	Pbmn	84 K (zero)	1,93 Å	?	?	single crystal X-ray	[263]	92 K (onset)

Bi(Ba)

93.(Bi-2201)

$Bi_2(Ba_{0,8}Ru_{0,2})CuO_6$	?	90 K (zero)	a=b=4,328(6) Å	?	?	X-ray diffraction	[350]	$T_{c\ (onset)}$ = 95 K; anomal ***a*** value, not considered

92.(Bi-2212)

$Bi_2Ba_2(Ba_{0,3}La_{0,7})Cu_2O_8$	Fmmm	-	1,972(1) Å	?	?	X-ray powder diff	[351]	no T_c measurements

104.(Bi-1112)

$BiBaCaCu_2O_4$	?	110	?	?	?	?	[394]	?

Hg(Sr)

91.(Hg-1212)

$HgSr_2(Ca_{0,5}La_{0,3}Ce_{0,2})Cu_2O_x$	P4/mmm	81 K (zero)	1,928 Å	?	?	X-ray powder diff	[352]	95 % phase purity

105.(HgPr-1212)

$(Hg_{0,4}Pr_{0,6})Sr_2(Sr_{0,7}Pr_{0,3})Cu_2O_6$	Pmmm	85 K (susc)	1,9193(4) Å	?	?	X-ray powder diff	[238]	annealing: no T_c influence

Hg(Ba)

22.(Hg-1223) HgBa2Ca2Cu3O8

$HgBa_2Ca_2Cu_3O_{8+0,18}$	P4/mmm	135 K (susc)	1,92393(4) Å	293 K	1 atm.	neutron powder diff	[014]	two $[CuO_2]$ layers
$HgBa_2Ca_2Cu_3O_8$	P4/mmm	135 K	1,9230(1) Å	293 K	0,000 GPa	neutron powder diff	[054]	annealing in O_2
$HgBa_2Ca_2Cu_3O_{8+x}$	P4/mmm	135 K	1,926(1) Å	293 K	1 atm	neutron powder diff	[016]	2 $[CuO_2]$ layers; same bond lengths
$HgBa_2Ca_2Cu_3O_{8,19}$	P4/mmm	135 K	1,925(6) Å	293 K	?	X-ray single-crystal	[070]	annealing 300ºC O_2
$HgBa_2Ca_2Cu_3O_8$	P4/mmm	135 K	1,925 Å	?	?	X-ray single-crystal	[063]	120 K before annealing
$HgBa_2Ca_2Cu_3O_{10}$	P4/mmm	135 K (onset)	1,9266(5) Å	?	?	X-ray powder diff	[184]	Cu-O = a/2, annealing O_2

20.(Hg-1201) HgBa2CuO4

$HgBa_2CuO_{4+0,12}$	P4/mmm	98 K (susc)	1,9426(1) Å	293 K	1 atm.	tof powder neutron	[017]	

$HgBa_2CuO_{4+0,13}$	P4/mmm	97,5 K	1,94184(4) Å	293 K	1 atm.	tof neutron powder	[019]	calculated values (a/2)
$HgBa_2CuO_{4+x}$	P4/mmm	97 K	1,9396(1) Å	293 K	0,000 GPa	neutron powder diff	[054]	annealing O_2; Cu-O = a/2
$HgBa_2CuO_{4,12}$	P4/mmm	96 K	1,941(2) Å	293 K	0,00 GPa	neutron powder diff	[079]	Cu-O = a/2

21.(Hg-1212) HgBa2CaCu2O6

$HgBa_2CaCu_2O_6$	P4/mmm	128 K (susc)	1,9247(1) Å	293 K	0,000 GPa	neutron powder diff	[054]	annealing in 2% O_2/Ar
$HgBa_2CaCu_2O_6$	P4/mmm	127 K	1,928(1) Å	293 K	1 atm	single crystal X-ray	[059]	annealing in O_2
$HgBa_2CaCu_2O_6$	P4/mmm	128 K	1,93 Å	293 K	?	neutron powder diff	[048]	freshly prepared

23.(Hg-1234) HgBa2Ca3Cu4O10

$HgBa_2Ca_3Cu_4O_{9,9}$	P4/mmm	125 K (susc)	1,9260(5) Å	?	?	X-ray powder diff	[184]	Cu-O = a/2, annealing O_2
$HgBa_2Ca_3Cu_4O_{8+0,18}$	P4/mmm	125 K	1,9252(6) Å	?	?	neutron powder dif	[119]	annealing O_2; two $[CuO_2]$ layers
			1,9249(2) Å					

24.(Hg-1245) HgBa2Ca4Cu5O12

$HgBa_2Ca_4Cu_5O_{12,46}$	P4/mmm	103 K (susc)	1,925(1) Å	?	?	single crystal X-ray	[260]	three $[CuO_2]$ layers
			1,925(1) Å					
			1,926(1) Å					
$HgBa_2Ca_4Cu_5O_{12}$	P4/mmm	101 K (susc)	1,9260(2) Å	293 K	?	neutron powder diff	[243]	T_c=114 K od fazy Hg-1256

25.(Hg-1256) HgBa2Ca5Cu6O14

$HgBa_2Ca_5Cu_6O_{14}$	P4/mmm	114 K (susc)	1,9258 Å	293 K	?	neutron powder diff	[243]	Hg-1245 impurity present

26.(Hg-1267) HgBa2Ca6Cu7O16

$HgBa_2Ca_6Cu_7O_{16}$	P4/mmm	84 K (susc)	1,9257(5) Å	293 K	?	single crystal X-ray	[215]	Cu-O = a/2

27.(Hg-2212) Hg2Ba2CaCu2O8

$Hg_2Ba_2(Y_{0,6}Ca_{0,4})Cu_2O_8$	I4/mmm	45 K (zero)	1,9345(7) Å	293 K	?	neutron powder diff	[211]	$T_{c\ (onset)}$ = 70 K

Pb(Sr)

102.(Pb-1201) PbSr2CuO5

$PbSr_2CuO_5$	?	40K (susc)	1,91 Å	?	?	X-ray diff	[392]	Thin layers

30.(Pb-1223) PbSr2Ca2Cu3O9

$Pb_{0,5}Sr_{2,8}Ca_{1,7}Cu_3O_{8.9}$	P4/mmm	104 K (susc)	1,916(2) Å	?	?	X-ray powder diff	[253]	

28.(PbCd-1212) (PbCd)Sr2CaCu2O7

$(Pb_{0,5}Cd_{0,5})Sr_2(Y_{0,5}Ca_{0,5})Cu_2O_7$	P4/mmm	51 K (zero)	1,914 Å	?	?	X-ray powder diff	[276]	$T_{c\ (onset)}$ = 76 K

102.(Pb-1212) PbSr2CaCu2O7

$(Pb_{0,5}Sr_{0,5})Sr_2(Y_{0,5}Ca_{0,5})Cu_2O_7$	P4/mmm	53 K (zero)	1,909 Å	?	?	X-ray powder diff	[229]	Cu-O = a/2, $T_{c\ (onset)}$= 100 K

31.(Pb-1234) PbSr2Ca3Cu4O11

$(Pb_{0,6}Sr_{0,3}Cu_{0,1})Sr_2(CaSr)_3Cu_4O_{11}$	P4/mmm	107 K	1,921(2) Å	?	?	X-ray powder diff	[266]	two pairs of $[CuO_2]$ layers
			1,9169(3) Å					

32.(Pb-2202) Pb2Sr2Cu2O6

$Pb_2SrLaCu_2O_6$	Pman	32 K (susc)	1,8962(4) Å	296 K	?	X-ray powder diff	[316]	Cu-O = $[\sqrt{(a^2+b^2)}]/4$

33.(Pb-2213) Pb2Sr2CaCu3O8

$Pb_2Sr_2(Y_{0,73}Ca_{0,27})Cu_3O_8$	Pman	67 K (susc)	1,912(1) Å	293 K	?	single cryst neutron	[232]	
$Pb_2Sr_2(Y_{0,5}Ca_{0,5})Cu_3O_8$	P1	35 K (zero)	1,9223(11) Å	293 K	?	neutron powder diff	[239]	79 K (onset)

90.(Pb-3436) Pb3Sr4Ca3Cu6Ox

$Pb_3Sr_4Ca_3Cu_6O_x$	?	106 K (zero)	?	?	?	?	[341]	$T_{c\ (onset)}$ = ~120 K

Pb(Ba) – two bond lengths

29.(Pb-1213) PbBa2CaCu3O7

$PbBa_2YCu_3O_7$	Fmm2	90 K	1,9430(4) Å	?	?	neutron powder diff	[286]	two $[CuO_2]$ layers
			1,9452(4) Å					

Fe(Sr)

103.(Fe-1212) FeSr2YCu2O6

$FeSr_2YCu_2O_6$	P4/mmm	50 K (susc)	1,9110(1) Å	293 K	?	neutron powder diff	[393]	Cu/Fe-O = a/2

Cu(Ba)

34.(Cu-1245) $CuBa_2Ca_4Cu_5O_{12}$

$CuBa_2Ca_4Cu_5O_{12,26}$	?	105 K (susc)	1,929(1) Å	?	?	single crystal X-ray	[260]	cited elsewhere, Cu-O =a/2

Mixtures: Tl,Bi

35.(TlBi-1212) (TlBi)Sr2CaCu2O7

$(Tl_{0,66}Bi_{0,33})Sr_2CaCu_2O_7$	P4/mmm	86 K (susc)	1,8971(2) Å	294 K	?	single crystal X-ray	[246]	73 K after annaling

36.(TlBi-1223) (TlBi)Sr2Ca2Cu3O9

$(Tl_{0,8}Bi_{0,2})(Sr_{1,6}Ba_{0,4})Ca_2Cu_3O_9$	P4/mmm	113 K (susc)	1,9105(1) Å	293 K	?	neutron powder diff	[250]	two $[CuO_2]$ layers
			1,9138(3) Å					

Mixtures: Tl,Hg

37.(TlHg-1223) (TlHg)Ba2Ca2Cu3O8

$(Tl_{1-x}Hg_x)Ba_2Ca_2Cu_3O_8$	P4/mmm	134 K (susc)	1,9273(5) Å	?	?	X-ray powder diff	[185]	$0,1 < x < 1,0$
$(Tl_{0,2}Hg_{0,8})Ba_2Ca_2Cu_3O_{8,33}$		133 K	1,9254(3) Å					annealing

38.(TlHg-2212) (TlHg)2Ba2CaCu2O8

$(Hg_{0,7}Tl_{0,3})_2Ba_2(Ca_{0,6}Y_{0,4})Cu_2O_8$	I4/mmm	90 K (susc)	1,931(4) Å	?	?	X-ray powder diff	[257]	
$(Hg_{0,7}Tl_{0,3})_2Ba_2(Ca_{0,4}Y_{0,6})Cu_2O_8$	I4/mmm	84 K (susc)	1,939(5) Å	?	?	X-ray powder diff	[257]	
$(Hg_{1,5}Tl_{0,5})_2Ba_2CaCu_2O_8$	I4/mmm	74 K (zero)	1,92391(0) Å	?	?	X-ray powder diff	[216]	100 K (onset) read from the figure

39.(TlHg-2223) (TlHg)2Ba2Ca2Cu3O10

$(Hg_{0,6}Tl_{0,4})_2Ba_2Ca_2Cu_3O_{10}$	I4/mmm	96 K (susc)	1,92237(7) Å	?	?	X-ray powder diff	[267]	anneling: Ar 400ºC 12h

40.(TlHg-3402) (TlHg)3Ba4Cu2O10

$(Tl_2Hg)Ba_4Cu_2O_{10}$	I4/mmm	50 K (susc)	1,9292(1) Å	296 K	?	X-ray powder diff	[325]	Cu-O = a/2

Mixtures: Tl,Pb

41.(TlPb-1212) (TlPb)Sr2CaCu2O7

$(Tl_{0,5}Pb_{0,5})Sr_2CaCu_2O_7$	P4/mmm	117,2 K (susc)	1,900(2) Å	?	?	X-ray powder diff	[082]	

$(Tl_{0,5}Pb_{0,5})(Sr_{1,8}Ba_{0,2})CaCu_2O_7$	P4/mmm	116 K	1,904(2) Å	293 K	?	powder x-ray diff	[082]	

43.(TlPb-1223) (TlPb)Sr2Ca2Cu3O9

$(Tl_{0,5}Pb_{0,5})Sr_2Ca_2Cu_3O_9$	P4/mmm	118 K (susc)	1,906(1) Å	?	?	X-ray powder diff	[074]	temperature read from the figure116-120 K
			1,911(1) Å					as above
$(Tl_{0,53}Pb_{0,53})(Sr_{1,58}Ca_{0,36})Ca_2Cu_3O_9$	P4/mmm	118 K (onset)	1,9076(1) Å	?	?	X-ray powder diff	[055]	two $[CuO_2]$ layers
			1,9095(3) Å					
$(Tl_{0,5}Pb_{0,5})(Sr_{1,8}Ba_{0,2})Ca_2Cu_3O_9$		117,5 K (susc)	1,907(1) Å	?	?	X-ray powder diff	[074]	temperature read from the figure116-120 K
			1,910(1) Å					as above
$(Tl_{0,55}Pb_{0,55})Sr_2Ca_{1,9}Cu_3O_9$	P4/mmm	118 K	1,9040(5) Å	293 K	?	single crystal X-ray	[280]	
			1,9052(7) Å					

97.(TlPb-1201) (TlPb)Sr2CuO5

$(Tl_{0,5}Pb_{0,5})Sr_2CuO_{4,9}$	P4/mmm	0 K	1,8691(2) Å	296 K	?	X-ray powder diff	[320]	Cu-O=a/2; metallic phase

42.(TlPb-1222) (TlPb)Sr2Ca2Cu2O9

$(Tl_{0,5}Pb_{0,5})Sr_2(Gd_{1,8}Ce_{0,2})Cu_2O_9$	I4/mmm	45 K (susc)	1,920 Å	296 K	?	X-ray powder diff	[324]	Cu-O = a/2
$(Tl_{0,5}Pb_{0,5})Sr_2(Gd_{1,6}Ce_{0,4})Cu_2O_9$	?	45 K (susc)	1,922 Å	296 K	?	X-ray diffraction	[324]	Cu-O = a/2

60.(TlPb-1402CO3) (TlPb)Sr4Cu2CO3O7

$(Tl_{0,5}Pb_{0,5})Sr_4Cu_2O_7CO_3$	P4/mmm	70 K (susc)	1,9122(1) Å	296 K	?	X-ray powder diff	[327]	annealing, Cu-O = a/2

Mixtures: Pb,Bi

44.(PbBi-1112) (PbBi)CaCu2O6

$(Bi_{0,3}B_{0,5}Pb_{0,2})SrCaCu_{2,5}O_x$	?	107 K (zero)	1,912 Å	296 K	?	X-ray powder diff	[304]	Cu-O = a/2; $T_{c\ (ons)}$ = 116 K

45.(PbBi-2212) PbBiSr2CaCu2O8

$PbBiSr_2(Y_{0,5}Ca_{0,5})Cu_2O_8$	Pnan	85 K	1,919 Å	?	?	X-ray powder diff	[220]	
$Bi_{1,2}Pb_{0,8}Sr_2Y_{0,6}Ca_{0,4}Cu_2O_8$	Pnan	~50 K (zero)	1,908(1) Å	?	?	X-ray powder diff	[234]	T_c from the figure, Cu-O calculated
$(Bi_{1,6}Pb_{0,4})Sr_2CaCu_2O_8$	Amaa	93 K	2,09(1) Å x	?	?	neutron powder diff	[231]	Too large span to be
			1,79(1) Å y					considered

46.(PbBi-2223) (BiPb)2Sr2Ca2Cu3O9

$(Bi_{1,7}Pb_{0,3})Sr_2Ca_2Cu_3O_{10}$	Amma	110 K (zero)	1,94 Å	293 K	?	neutron powder diff	[230]	

47.(PbBi-2234) (PbBi)2Ba2Ca3Cu4O12

$(Pb_{1,6}Bi_{0,4})Ba_2Ca_3Cu_4O_x$	?	106-108 K	?	?	?	X-ray powder diff	[186]	116 h of annealing

Mixtures: Pb,Hg

48.(PbHg-1201) (PbHg)Sr2CuO5

$(Pb_{0,5}Hg_{0,5})(Sr_{1,2}La_{0,8})_2CuO_5$	P4/mmm	30 K (bulk)	1,8954(2) Å	?	?	X-ray powder diff	[205]	

49.(PbHg-1212) (PbHg)Sr2CaCu2O7

$(Pb_{0,5}Hg_{0,5})Sr_2(Y_{0,7}Ca_{0,3})Cu_2O_7$	P4/mmm	90 K (bulk)	1,9083(2) Å	?	?	X-ray powder diff	[205]	
$(Pb_{0,7}Hg_{0,3})Sr_2(Ca_{0,8}Nd_{0,2})Cu_2O_7$	P4/mmm	90 K (susc)	1,910(1) Å	?	?	X-ray powder diff	[242]	100 K (onset res)
$(Hg_{0,7}Pb_{0,3})Sr_2(Ca_{0,7}Y_{0,3})Cu_2O_7$	P4/mmm	100 & 40 (onset)	1,9084(6) Å	?	?	X-ray powder diff	[249]	Two T_C values detected (multiphase?)

51.(PbHg-1234) (PbHg)Ba2Ca3Cu4O10

$(Hg_xPb_x)Ba_2Ca_3Cu_4O_{10}$	P4/mmm	129 K (susc)	1,927(0) Å	?	?	single crystal X-ray	[248]	$T_{c(mid)}$=122 K

50.(PbHg-1223) (PbHg)Sr2Ca2Cu3O8

$(Hg_{0,66}Pb_{0,34})Ba_2Ca_2Cu_3O_{8,4}$	P4/mmm	135 K (zero)	1,9228(1) Å	?	?	x-ray/n powder diff	[120]	143 K (onset)
$(Hg_{0,45}Pb_{0,45}Cu_{0,1})(Sr_{0,74}Ba_{0,26})_2$	P4/mmm	116 K (onset)	1,9159(4) Å	300 K	?	single crystal X-ray	[272]	two $[CuO_2]$ layers
$(Ca_{0,91}Sr_{0,09})_2Cu_3O_{8,31}$			1,9179(7) Å					
$Hg_{0,7}Pb_{0,3}Ba_2Ca_2Cu_3O_{8,45}$	P4/mmm	135 K (zero)	1,922285(3) Å	293 K	?	x-ray/n powder diff	[072]	143 K diamagnetic

52.(PbHg-1245) (PbHg)Ba2Ca4Cu5O12

$(Pb_{0,5}Hg_{0,5})Ba_2Ca_4Cu_5O_{12}$	P4/mmm	115 K (susc)	1,9265(3) Å	?	?	single crystal X-ray	[251]	Cu-O = a/2

61.(PbHg-1402CO3) (PbHg)Sr4Cu2CO3O7

$(Pb_{0,7}Hg_{0,3})Sr_4Cu_2CO_3O_7$	P4/mmm	70 K (susc)	1,916(1) Å	?	?	X-ray powder diff	[242]	

53.(PbHg-2212) (PbHg)2Ba2CaCu2O8

$(Pb_{0,125}Hg_{0,875})_2Ba_2(Y_{0,5}Ca_{0,5})Cu_2O_8$	I4/mmm	84 K (susc)	1,9375(3) Å	293 K	?	neutron powder diff	[273]	

Mixtures: Hg,Bi

54.(HgBi-1212) (HgBi)Sr2CaCu2O6

$(Hg_{0,8}Bi_{0,2})Sr_2CaCu_2O_6$	P4/mmm	121 K (susc)	1,9283(3) Å	?	?	single crystal X-ray	[277]	Cu-O = a/2

55.(HgBi-1223) (HgBi)Ba2Ca2Cu3O8

$(Hg_{0,7}Bi_{0,3})Ba_2Ca_2Cu_3O_{8,55}$	P4/mmm	116 K	1,915(3) Å	293 K	?	X-ray powder diff	[285]	
			1,9113(5) Å					

56.(HgBi-1234) (HgBi)Sr2Ca3Cu4O10

$(Hg_{0,7}Bi_{0,3})Ba_2Ca_2Cu_3O_{8,55}$	P4/mmm	96 K	1,926(1) Å	293 K	?	X-ray powder diff	[285]	

Mixtures: Cu,Hg

57.(CuHg-1223) (CuHg)Ba2Ca2Cu3O8

$(Hg_{0,92}Cu_{0.08})Ba_2Ca_2Cu_3O_8$	P4/mmm	133 K (susc)	1,929(1) Å	?	?	single crystal X-ray	[258]	

58.(CuHg-1245) (CuHg)Ba2Ca4Cu5O12

$(Cu_{0,76}Hg_{0,24})Ba_2Ca_4Cu_5O_{12,74}$	P4/mmm	98 K (susc)	1,925(1) Å (x2)	?	?	single crystal X-ray	[260]	three $[CuO_2]$ layers
			1,926(1) Å (x1)					

Mixtures: Tl,Bi,Pb

59.(TlBiPb-1223) (TlBiPb)Sr2Ca2Cu3O9

$(Tl_{0,6}Pb_{0,2}Bi_{0,2})(Sr_{1,8}Ba_{0,2})Ca_2Cu_3O_9$	P4/mmm	120,5 K (susc)	1,908(1) Å	?	?	X-ray powder diff	[074]	

Sr incl. infinite layer

65.(SrCa-0101) (SrCa)CuO2

$(Sr_{0,63}Ca_{0,27})CuO_2$	?	110 K	1,951 Å	296 K	?	X-ray diffraction	[319]	Cu-O = a/2

66.(SrLa-0101) (SrLa)CuO2

$(Sr_{0,9}La_{0,1})CuO_2$	P4/mmm	42 K (susc)	1,97534(6) Å	296 K	?	neutron powder diff	[318]	Cu-O = a/2

67.(SrNd-0101) (SrNd)CuO2

$(Sr_{0,84}Nd_{0,16})CuO_2$	?	20,1 K (zero)	1,972 Å	296 K	0 GPa	X-ray powder diff	[317]	Cu-O = a/2

88.(YSrCa-0101) YSrCa2Cu4Ox

$(Y_{0,25}Sr_{0,25}Ca_{0,5})CuO_x$	?	101 K (zero)	?	?	?	?	[340]	$T_{c\ (onset)}$ = ~125 K

89.(BaSrCa-0101) BaSrCa2Cu4Ox

$(Ba_{0,25}Sr_{0,25}Ca_{0,5})CuO_x$	?	90 K (zero)	?	?	?	?	[340]	$T_{c\ (onset)}$ = 120 K

68.(Sr-0201) Sr2CuO3

Sr_2CuO_3	I4/mmm	70 K (susc)	1,882 Å	?	?	X-ray powder diff	[360]	Cu-O = a/2

78.(Sr-0238) Sr4Ca6Cu16O28

$(Sr_{3,66}Bi_{0,28})Ca_{6,02}Cu_{16,45}O_{28,63}$	F222	80 K	1,910 Å	293 K	?	single crystal X-ray	[294]	

77.(Sr-0302) Sr3Cu2O5

$Sr_3Cu_2O_5$	I4/mmm	100 K (susc)	1,951 Å	?	?	X-ray powder diff	[360]	

81.(Sr 0 10 0 17) (SrCa)10Cu17O29

$(SrCa)_{10}Cu_{17}O_{29}$	F222	80 K (onset)	?	?	?	X-ray powder diff	[268]	

La etc.

69.(LaNa-0201) (LaNa)2CuO4

$(La_{1,7}Na_{0,3})CuO_4$	I4/mmm	20 K (zero)	1,888(2) Å	293 K	?	X-ray powder diff	[187]	$T_{c\ (onset)}$ = 40 K

71.(LaPr-0201) LaPrCuO4

$(La_{0,8}Sr_{0,2})PrCuO_4$	?	24 K	?	?	?	?	[314]	

72.(LaBa-0201) (LaBa)2CuO4

$(La_{1,85}Ba_{0,15})CuO_4$	I4/mmm	35 K (susc)	1,8936 Å	295 K	?	neutron powder diff	[143]	

73.(LaSr-0201) (LaSr)2CuO4

$(La_{1,91}Sr_{0,09})CuO_4$	F4/mmm	39 K (susc)	1,8942(4) Å	293K	?	neutron powder diff	[071]	High temp. tetragonal
$(La_{1,85}Sr_{0,15})CuO_4$	I4/mmm	37,5 K	1.8896(1) Å	300 K	1 atm	neutron powder diff	[001]	

75.(La-0212) La2CaCu2O6

$(La_{1,7}Sr_{0,3})CaCuO_6$	I4/mmm	50 K (susc)	1,9126(2) Å	298 K	?	neutron powder diff	[305]	Cu-O = a/2
$(La_{1,85}Ba_{0,15})CaCuO_6$	I4/mmm	47 K	1,91652(6) Å	296 K	?	neutron powder diff	[303]	Cu-O = a/2

76.(La-0213) La2CaCu3O7

$(LaBa)CaCu_3O_7$	P4/mmm	80 K (zero)	1,943 Å	300 K	?	X-ray powder diff	[309]	Cu-O=a/2; considerable difference between entries
$(LaBa)CaCu_3O_{6,90}$	P4/mmm	80 K (susc)	1,932 Å	?	?	X-ray powder diff	[310]	

79.(LaBa-0336) La3Ba3Cu6O14

$(La_3Ba_3Ca_x)Cu_6O_y$	P4/mmm	80 K (susc)	1,9350 Å	?	?	X-ray powder diff	[312]	Cu-O = a/2; 75 K (zero)

80.(LaBa-0347) La3Ba4Cu7O16

$La_3(Ba_{2,9}Ca_{1,1})Cu_7O_y$	?	82 K (zero)	1,94 Å	296 K	?	X-ray powder diff	[313]	Cu-O = a/2; $T_{c\ (onset)}$ = 86 K

101.(LaNd-0201) (LaNd)2CuO4

$(La_{1,48}Nd_{0,4}Sr_{0,12})CuO_4$	Bmab	4,3 K (susc)	1,89057(7) Å	300 K	?	X-ray powder diff	[380]	Cu-O = $[\sqrt{(a^2+b^2)}]/4$

Nd

70.(NdCe-0201) (NdCe)2CuO4

$(Nd_{1,85}Ce_{0,15})CuO_{3,950}$	I4/mmm	24 K (susc)	1,9745(1) Å	300 K	1 atm.	neutron powder diff	[006]	"Zr-gettered" samples

74.(NdSrCe-0201) (NdSrCe)2CuO4

$(Nd_{1,32}Sr_{0,41}Ce_{0,27})CuO_{3,92}$	P4/nmm	22 K (susc)	1,9352(4) Å	?	?	TOF n powder	[026]	

Oxohalides

82.(Sr-0201F) Sr2CuO2F2

$(Sr_{1,4}Ba_{0,6})CuO_2F_{2+x}$	?	64 K (susc)	1,937(2) Å	?	?	X-ray powder diff	[328]	

84.(Sr-0212F) Sr2NdCu2O5F

$Sr_2(Nd_{0,2}Ca_{0,8})Cu_2O_5F$	I4/mmm	85 K (susc)	1,932(1) Å	?	?	X-ray powder diff	[255]	isostructural to $La_2SrCu_2O_6$

86.(Sr-0201Cl) Sr2CuO2Cl2

$Sr_2CuO_2Cl_2$	I4/mmm	0 K (zero)	1,986 Å	293 K	?	neutron powder diff	[295]	No SC down to 4,2 K

83.(Ca-0201F) Ca2CuO2F2

$Ca_2CuO_2F_2$	I4/mmm	0 K (susc)	1,925(1) Å	?	?	neutron powder diff	[329]	No SC down to 4,2 K

87.(CaNa-0201Cl) (CaNa)2CuO2Cl2

$(Ca_{1,92}Na_{0,08})_2CuO_2Cl_2$	I4/mmm	26 K (susc)	1,9248(1) Å	293 K	?	neutron powder diff	[296]	

Au

98.(Au-1212) AuBa2CaCu2O7

$AuBa_2(Y_{0,6}Ca_{0,4})Cu_2O_7$	Pmmm	82 K (susc)	1,93(3) Å	?	?	X-ray powder diff	[383]	

Y – two bond lengths

62.(Y-0213) Ba2YCu3O7

$YBa_2Cu_3O_{7-x}$	Pmmm	92 K (zero)	1,924 Å x	293 K	1 atm.	X-ray powder diff	[009]	values taken from the
			1,959 Å y					figures

63.(Y-0214) Ba2YCu4O8

$YBa_2Cu_4O_8$	Ammm	83 K (zero)	1,9350(6) Å	?	?	TOF n. powder dif	[042]	
			1,9501(8) Å					

64.(Y-0427) Ba4Y2Cu7O15

$Y_2Ba_4Cu_7O_{14+x}$	Ammm	4-91,5 K	1,824-1,885 Å	?	?	X-ray diffraction	[44]	x = 0:1,4
			1,929-1,942 Å					several $[CuO_2]$ layers
			1,939-1,960 Å					
			2,258-2,350 Å					

Au – two bond lengths

99.(Au-1223) AuBa2Ca2Cu3O9

$AuBa_2Ca_2Cu_3O_9$	Pmmm/Pmm2	30 K (susc)	1,9091(4) Å x	?	?	X-ray powder diff	[382]	Cu-O = =a/2

100.(Au-1234) AuBa2Ca3Cu4O11								
$AuBa_2Ca_3Cu_4O_{11}$	Pmmm/Pmm2	99 K (susc)	1,9133(3) Å x	?	?	X-ray powder diff	[382]	Cu-O = =a/2
			1,9253(4) Å y					

An extended Table containing all data considered in preparation of this extract may be obtained from the authors upon request.

9. References to the Table.

ambient pressure

[001] *Phys. Rev. B*, 35 (1987) 6716-6720 73.(LaSr-0201)
[002] *Phys. Rev. B*, 35 (1987) 8778-8781 62.(Y-0213)
[003] *Phys. Rev. B*, 37 (1988) 7960-7962 62.(Y-0213)
[004] *Phys. Rev. B*, 38 (1988) 225-231 10.(Tl-2201) 14.(Bi-2201)
[005] *Phys. Rev. B*, 38 (1988) 6624-6630 11.(Tl-2212) 13.(Tl-2223)
[006] *Phys. Rev. B*, 40 (1989) 9370-9373 70.(NdCe-0201)
[007] *Phys. Rev. B*, 41 (1990) 1863-1877 62.(Y-0213)
[008] *Phys. Rev. B*, 42 (1990) 4228-4239 15.(Bi-2212) 17.(Bi-2302)
[009] *Phys. Rev. B*, 44 (1991) 7601-7606 62.(Y-0213)
[010] *Phys. Rev. B*, 45 (1992) 4885-4891 11.(Tl-2212) 13.(Tl-2223)
[011] *Phys. Rev. B*, 49 (1994) 4163-4175 73.(LaSr-0201)
[012] *Phys. Rev. B*, 50 (1994) 16033-16039 04.(Tl-1212) 10.(Tl-2201)
[013] *Phys. Rev. B*, 51 (1995) 12747-12753 10.(Tl-2201)
[014] *Phys. Rev. B*, 51 (1995) 15407-15414 22.(Hg-1223)
[015] *Phys. Rev. B*, 52 (1995) 462-470 20.(Hg-1201)
[016] *Phys. Rev. B*, 52 (1995) 15551-15557 22.(Hg-1223)
[017] *Phys. Rev. B*, 55 (1997) 3966-3973 20.(Hg-1201)
[018] *Phys. Rev. B*, 55 (1997) 12776-12783 20.(Hg-1201)
[019] *Phys. Rev. B*, 59 (1999) 7209-7215 20.(Hg-1201)
[021] *Physica C*, 152 (1988) 413-423 03.(Tl-1212)
[023] *Physica C*, 153 (1988) 972-973 62.(Y-0213)
[024] *Physica C*, 156 (1988) 97-102 10.(Tl-2201) 11.(Tl-2212) 13.(Tl-2223)
[025] *Physica C*, 156 (1988) 587-591 05.(Tl-1223)
[026] *Physica C*, 158 (1989) 440-448 74.(NdSrCe-0201)
[027] *Physica C*, 159 (1989) 239-244 10.(Tl-2201)
[028] *Physica C*, 165 (1990) 419-433 62.(Y-0213)
[029] *Physica C*, 167 (1990) 579-590 64.(Y-0427)
[030] *Physica C*, 169 (1990) 179-183 73.(LaSr-0201)
[031] *Physica C*, 172 (1991) 413-422 11.(Tl-2212) 13.(Tl-2223)
[032] *Physica C*, 173 (1991) 444-452 01.(Tl-1201) 72.(LaBa-0201) 73.(LaSr-0201) 97.(TlPb-1201)
[033] *Physica C*, 175 (1991) 241-249 13.(Tl-2223)
[035] *Physica C*, 183 (1991) 90-98 05.(Tl-1223)
[036] *Physica C*, 195 (1992) 219-224 10.(Tl-2201)
[037] *Physica C*, 197 (1992) 113-122 62.(Y-0213) 63.(Y-0214)
[038] *Physica C*, 198 (1992) 203-208 10.(Tl-2201)
[039] *Physica C*, 198 (1992) 309-317 16.(Bi-2223)
[040] *Physica C*, 200 (1992) 167-174 13.(Tl-2223)
[041] *Physica C*, 201 (1992) 53-57 12.(Tl-2234)
[042] *Physica C*, 204 (1992) 147-154 63.(Y-0214)
[043] *Physica C*, 205 (1993) 259-265 63.(Y-0214)
[044] *Physica C*, 211 (1993) 165-178 64.(Y-0427)
[045] *Physica C*, 212 (1993) 259-263 20.(Hg-1201)
[046] *Physica C*, 212 (1993) 266-270 21.(Hg-1212)
[047] *Physica C*, 214 (1993) 64-72 72.(LaBa-0201)
[048] *Physica C*, 216 (1993) 29-35 21.(Hg-1212)
[049] *Physica C*, 217 (1993) 265-272 22.(Hg-1223)
[050] *Physica C*, 218 (1993) 348-355 21.(Hg-1212)
[051] *Physica C*, 218 (1993) 356-364 21.(Hg-1212)
[052] *Physica C*, 220 (1994) 41-49 63.(Y-0214)
[053] *Physica C*, 220 (1994) 389-395 21.(Hg-1212) 41.(TlPb-1212)

[054] *Physica C*, 221 (1994) 1-10 — 20.(Hg-1201) 21.(Hg-1212) 22.(Hg-1223)
[055] *Physica C*, 221 (1994) 304-310 — 43.(TlPb-1223)
[056] *Physica C*, 222 (1994) 375-385 — 14.(Bi-2201)
[057] *Physica C*, 223 (1994) 283-290 — 12.(Tl-2234)
[058] *Physica C*, 225 (1994) 307-316 — 13.(Tl-2223)
[059] *Physica C*, 226 (1994) 216-221 — 21.(Hg-1212) 22.(Hg-1223)
[060] *Physica C*, 229 (1994) 331-345 — 11.(Tl-2212)
[062] *Physica C*, 230 (1994) 153-158 — 06.(Tl-1234)
[063] *Physica C*, 235 (1994) 891-892 — 22.(Hg-1223)
[064] *Physica C*, 242 (1995) 385-392 — 10.(Tl-2201)
[065] *Physica C*, 243 (1995) 1-9 — 20.(Hg-1201)
[067] *Physica C*, 246 (1995) 241-252 — 14.(Bi-2201)
[069] *Physica C*, 250 (1995) 15-24 — 10.(Tl-2201) 11.(Tl-2212)
[070] *Physica C*, 250 (1995) 213-221 — 22.(Hg-1223)
[071] *Physica C*, 254 (1995) 233-248 — 73.(LaSr-0201)
[072] *Physica C*, 261 (1996) 189-195 — 50.(PbHg-1223)
[073] *Physica C*, 267 (1996) 31-44 — 13.(Tl-2223)
[074] *Physica C*, 267 (1996) 93-105 — 43.(TlPb-1223) 59.(TlBiPb-1223)
[075] *Physica C*, 268 (1996) 257-265 — 20.(Hg-1201)
[076] *Physica C*, 270 (1996) 51-67 — 72.(LaBa-0201)
[077] *Physica C*, 270 (1996) 267-273 — 43.(TlPb-1223)
[078] *Physica C*, 273 (1996) 99-106 — 62.(Y-0213)
[079] *Physica C*, 275 (1997) 87-92 — 20.(Hg-1201)
[080] *Physica C*, 276 (1997) 281-288 — 20.(Hg-1201)
[081] *Physica C*, 277 (1997) 170-182 — 10.(Tl-2201)
[082] *Physica C*, 297 (1998) 201-210 — 41.(TlPb-1212)
[086] *Acta Chim. Scand.*, 46 (1992) 1059-1064 — 63.(Y-0214)
[089] *Acta cryst. B*, 52 (1996) 38-53 — 15.(Bi-2212)
[090] *Acta cryst. C*, 47 (1991) 1143-1145 — 63.(Y-0214)
[094] *Chem. commun.*, 1997 (1997) 435-436 — 10.(Tl-2201)
[100] *Europhys. Lett.*, 3 (1987) 1035-1040 — 73.(LaSr-0201)
[101] *Europhys. Lett.*, 3 (1987) 1301-1307 — 62.(Y-0213)
[102] *Inorg. Chem.*, 26 (1987) 1190-1192 — 73.(LaSr-0201)
[103] *Inorg. Chem.*, 26 (1987) 3191-3193 — 62.(Y-0213)
[104] *Jpn. J. Appl. Phys.*, 26 (1987) 363-365 — 72.(LaBa-0201) 73.(LaSr-0201)
[105] *Jpn. J. Appl. Phys.*, 27 (1988) 1661-1664 — 14.(Bi-2201) 15.(Bi-2212) 17.(Bi-2302)
[106] *Jpn. J. Appl. Phys.*, 28 (1989) 382-385 — 10.(Tl-2201) 11.(Tl-2212) 13.(Tl-2223)
[110] *J. Mater. Res.*, 3 (1988) 819-824 — 62.(Y-0213)
[111] *J. Phys.: Condens. Matter.*, 6 (1994) 3539-3551 — 15.(Bi-2212)
[112] *J. Phys.: Condens. Matter.*, 9 (1997) 1451-1460 — 22.(Hg-1223)
[113] *J. Phys. D: Appl. Phys.*, 21 (1988) 1031-1034 — 11.(Tl-2212)
[118] *J. Solid State Chem.*, 109 (1994) 321-332 — 10.(Tl-2201) 11.(Tl-2212)
[119] *J. Solid State Chem.*, 122 (1996) 221-230 — 20.(Hg-1201) 21.(Hg-1212) 22.(Hg-1223) 23.(Hg-1234)
[120] *J. Supercond.*, 15 (2002) 225-229 — 50.(PbHg-1223)
[121] *J. Phys. Soc. Jpn.*, 72 (2003) 2924-2929 — 16.(Bi-2223)
[123] *Kriastalografiya*, 35 (1990) 498-500 — 73.(LaSr-0201)
[124] *Kriastalografiya*, 36 (1991) 217-218 — 62.(Y-0213)
[127] *Mater. Res. Bull.*, 23 (1988) 1439-1445 — 62.(Y-0213)
[128] *Mater. Res. Bull.*, 24 (1989) 883-888 — 41.(TlPb-1212)
[137] *Nature*, 327 (1987) 687-689 — 62.(Y-0213)
[138] *Nature*, 328 (1987) 606-607 — 62.(Y-0213)
[139] *Nature*, 332 (1988) 420-422 — 11.(Tl-2212)

[140]	*Nature*, 362 (1993) 226-228	20.(Hg-1201)
[142]	*Phys. Status Solidi*, 114 (1989) 651-1989	02.(Tl-2233) 94.(Tl-2243) 95.(Tl-4476)
[143]	*Phys. Rev. Lett.*, 58 (1987) 1024-1027	72.(LaBa-0201)
[148]	*Solid State Commun.*, 64 (1987) 757-760	62.(Y-0213)
[149]	*Solid State Commun.*, 65 (1988) 1121-1123	62.(Y-0213)
[150]	*Solid State Commun.*, 66 (1988) 1117-1125	62.(Y-0213)
[151]	*Solid State Commun.*, 73 (1990) 791-795	70.(NdCe-0201)
[180]	*Science*, 240 (1988) 631-634	13.(Tl-2223)
[181]	*Physica C*, 246 (1995) 297-308	15.(Bi-2212)
[182]	*Science*, 239 (1988) 1015-1017	15.(Bi-2212) 17.(Bi-2302)
[183]	*J. Supercond.*, 11 (1998) 117-118	22.(Hg-1223) 23.(Hg-1234)
[184]	*Physica C*, 279 (1997) 11-17	22.(Hg-1223) 23.(Hg-1234)
[185]	*Physica C*, 246 (1995) 203-206	37.(TlHg-1223)
[186]	*Superconduct. Sci. Techn.*, 2 (1989) 224-29	46.(PbBi-2223) 47.(PbBi-2234)
[187]	*Science*, 240 (1988) 495-497	69.(LaNa-0201)
[200]	*Acta Chim. Scand.*, 46 (1992) 122-125	33.(Pb-2213)
[202]	*Acta cryst. C*, 58 (2002) i126-i128	38.(TlHg-2212)
[205]	*Chin. J. Phys.*, 31 (1993) 1121-1126	48.(PbHg-1201) 49.(PbHg-1212)
[207]	*J. Alloys Compd.*, 333 (2002) 237-248	05.(Tl-1223) 13.(Tl-2223)
[210]	*J. Phys. Soc. Jpn.*, 61 (1992) 881-890	33.(Pb-2213)
[211]	*J. Phys. Chem. Sol.*, 56 (1995) 1471-1478	27.(Hg-2212)
[212]	*J. Phys.: Condens. Matter.*, 8 (1996) 3647-3652	50.(PbHg-1223)
[215]	*J. Solid State Chem.*, 143 (1999) 277-284	25.(Hg-1256) 26.(Hg-1267)
[216]	*J. Solid State Chem.*, 153 (2000) 106-117	38.(TlHg-2212)
[217]	*J. Supercond.*, 11 (1998) 471-479	22.(Hg-1223) 37.(TlHg-1223)
[220]	*Mater. Res. Bull.*, 27 (1992) 1153-1159	45.(PbBi-2212)
[225]	*Nature*, 369 (1994) 382-384	68.(Sr-0201) 82.(Sr-0201F)
[226]	*Physica C*, 156 (1988) 230-230	15.(Bi-2212)
[227]	*Physica C*, 157 (1989) 460-468	04.(Tl-1212) 41.(TlPb-1212)
[228]	*Physica C*, 157 (1989) 515-519	15.(Bi-2212)
[229]	*Physica C*, 159 (1989) 201-209	28.(Pb-1212)
[230]	*Physica C*, 167 (1990) 291-296	16.(Bi-2223) 46.(PbBi-2223)
[231]	*Physica C*, 173 (1991) 267-273	15.(Bi-2212) 45.(PbBi-2212)
[232]	*Physica C*, 175 (1991) 293-300	33.(Pb-2213)
[233]	*Physica C*, 175 (1991) 393-400	28.(Pb-1212)
[234]	*Physica C*, 197 (1992) 283-298	45.(PbBi-2212)
[236]	*Physica C*, 215 (1993) 371-374	19.(Bi-4413)
[237]	*Physica C*, 216 (1993) 257-263	54.(HgBi-1212)
[238]	*Physica C*, 216 (1993) 264-272	21.(Hg-1212)
[239]	*Physica C*, 218 (1993) 43-50	33.(Pb-2213)
[241]	*Physica C*, 222 (1994) 13-18	49.(PbHg-1212)
[242]	*Physica C*, 222 (1994) 19-26	49.(PbHg-1212) 61.(PbHg-1402CO3)
[243]	*Physica C*, 227 (1994) 1-9	24.(Hg-1245) 25.(Hg-1256)
[244]	*Physica C*, 230 (1994) 389-396	28.(Pb-1212)
[245]	*Physica C*, 231 (1994) 357-366	29.(Pb-1213)
[246]	*Physica C*, 232 (1994) 387-395	35.(TlBi-1212)
[247]	*Physica C*, 235 (1994) 158-161	?
[248]	*Physica C*, 243 (1995) 10-18	51.(PbHg-1234)
[249]	*Physica C*, 247 (1995) 125-132	49.(PbHg-1212)
[250]	*Physica C*, 253 (1995) 109-114	36.(TlBi-1223)
[251]	*Physica C*, 254 (1995) 7-14	52.(PbHg-1245)
[253]	*Physica C*, 266 (1996) 261-270	30.(Pb-1223)

[255] *Physica C*, 269 (1996) 5-14 84.(Sr-0212F)
[257] *Physica C*, 273 (1997) 198-204 38.(TlHg-2212)
[258] *Physica C*, 276 (1997) 270-276 22.(Hg-1223) 57.(CuHg-1223)
[259] *Physica C*, 281 (1997) 228-236 38.(TlHg-2212)
[260] *Physica C*, 281 (1997) 237-243 24.(Hg-1245) 34.(Cu-1245) 58.(CuHg-1245)
[261] *Physica C*, 282 (1997) 849-850 07.(Tl-1245)
[262] *Physica C*, 282 (1997) 911-912 38.(TlHg-2212)
[263] *Physica C*, 291 (1997) 155-169 19.(Bi-4413)
[264] *Physica C*, 294 (1998) 169-175 33.(Pb-2213)
[266] *Physica C*, 299 (1998) 249-255 31.(Pb-1234)
[267] *Physica C*, 301 (1998) 39-47 39.(TlHg-2223)
[268] *Physica C*, 311 (1999) 187-196 81.(Sr 0 10 0 17)
[269] *Physica C*, 314 (1999) 27-35 38.(TlHg-2212)
[270] *Physica C*, 314 (1999) 219-227 38.(TlHg-2212)
[271] *Physica C*, 329 (2000) 267-278 16.(Bi-2223) 85.(Bi-2223F)
[272] *Physica C*, 338 (2000) 67-71 50.(PbHg-1223)
[273] *Physica C*, 377 (2002) 146-155 53.(PbHg-2212)
[275] *Phys. Rev. B*, 44 (1991) 4553-4559 29.(Pb-1213)
[276] *Phys. Rev. B*, 51 (1995) 9261-9270 28.(Pb-1212)
[277] *Phys. Rev. B*, 54 (1996) 16246-15253 54.(HgBi-1212) 55.(HgBi-1223)
[280] *Science*, 242 (1988) 249-252 41.(TlPb-1212) 43.(TlPb-1223)
[283] *Superconduct. Sci. Techn.*7 (1994) 685-690 43.(TlPb-1223)
[284] *Superconduct. Sci. Techn.*9 (1996) 706-712 21.(Hg-1212)
[285] *Superconduct. Sci. Techn.*12 (1999) 1168-1174 55.(HgBi-1223) 56.(HgBi-1234)
[286] *Superconduct. Sci. Techn.*15 (2002) 1048-1053 29.(Pb-1213)
[294] *Z. Kristall.*, 215 (2000) 368-372 78.(Sr-0238)
[295] *Phys. Rev. B*, 41 {1990) 1921-1925 86.(Sr-0201Cl)
[296] *Phys. Rev. B*, 51 (1995) 8434-8437 87.(CaNa-0201Cl)
[297] *Phys. Rev. B*, 56 (1997) 2831-2835 82.(Sr-0201F)
[301] *Physica C*, 181 (1991) 68-74 17.(Bi-2302)
[302] *Mod. Phys. Lett.*, 22 (1990) 1385-1391 18.(Bi-4334)
[303] *Solid State Commun.*, 81 (1992) 677-681 75.(La-0212)
[304] *Mater. Lett.*, 17 (1993) 4-8 44.(PbBi-1112)
[305] *Physica C*, 213 (1993) 455-470 75.(La-0212)
[306] *Physica C*, 179 (1991) 39-42 75.(La-0212)
[307] *Physica C*, 174 (1991) 187-194 75.(La-0212)
[308] *Physica C*, 198 (1992) 231-236 76.(La-0213)
[309] *Physica C*, 156 (1988) 126-132 76.(La-0213)
[310] *Physica C*, 173 (1991) 453-457 76.(La-0213)
[311] *Physica C*, 208 (1993) 143-148 79.(LaBa-0606)
[312] *Physica C*, 176 (1991) 451-456 79.(LaBa-0606)
[313] *Physica C*, 212 (1993) 32-36 80.(LaBa-0707)
[314] *Physica C*, 182 (1991) 149-152 71.(LaPr-0201)
[315] *Physica C*, 203 (1992) 369-377 70.(NdCe-0201)
[316] *Physica C*, 184 (1991) 311-315 32.(Pb-2202)
[317] *Physica C*, 192 (1992) 13-17 67.(SrNd-0101)
[318] *Phys. Rev. B*, 47 (1993) 14654-14656 66.(SrLa-0101)
[319] *"HTS materials…"*, (1992) 58-63 65.(SrCa-0101)
[320] *Physica C*, 178 (1991) 193-196 01.(Tl-1201) 97.(TlPb-1201)
[321] *Physica C*, 253 (1995) 71-78 04.(Tl-1212)
[322] *Physica C*, 202 (1992) 199-208 04.(Tl-1212)
[323] *Physica C*, 208 (1993) 253-258 08.(Tl-1302)

[324] *Physica C*, 206 (1993) 81-89 42.(TlPb-1222)
[325] *Physica C*, 212 (1993) 274-278 40.(TlHg-3402)
[326] *Physica C*, 179 (1991) 1-8 09.(Tl-1402)
[327] *Physica C*, 205 (1993) 219-224 60.(TlPb-1402CO3)
[328] *Physica C*, 241 (1995) 151-157 82.(Sr-0201F)
[329] *J. Mater. Chem.* 5 (1995) 913-916 83.(Ca-0201F)
[340] *http://superconductors.org/inflayer.htm* 88.(YSrCa-0011) 89.(Basra-0011)
[341] *http://superconductors.org/PbHighTc.htm* 90.(Pb-3436)
[350] *Superlatt Microstr.*, 22 (1997) 613-616 93.(Bi-2201)
[351] *Physica C*, 199 (1992) 321-327 92.(Bi-2212)
[352] *Crystal Res. Tech.*, 30 (1995) 451-456 91.(Hg-1212)
[360] *Nature*, 364 (1993) 315-317 77.(Sr-0302)
[361] *Physica C*, 152 (1988) 217-222 17.(Tl-1112)
[362] *Physica C*, 152 (1988) 223-227 96.(Tl-5526)
[363] *Physica C*, 152 (1988) 228-230 18.(Bi-4334)
[380] *Phys. Rev. B*, 71 (2005) 104513 101.(LaNd-0201)
[392] *J. Appl. Phys.*, 38 (1999) L283-L285 102. (Pb-1201)
[393] *J. Phys. Soc. Jpn.*, 71 (2002) 790-796 103. (Fe-1212)
[394] *www.freepatentsonline.com/4858511.html* 104. (Bi-1112)

high pressure

[016] *Phys. Rev. B*, 52 (1995) 15551-15557 22.(Hg-1223)
[019] *Phys. Rev. B*, 59 (1999) 7209-7215 20.(Hg-1201)
[030] *Physica C*, 169 (1990) 179-183 73.(LaSr-0201)
[054] *Physica C*, 221 (1994) 1-10 20.(Hg-1201) 21.(Hg-1212) 22.(Hg-1223)
[079] *Physica C*, 275 (1997) 87-92 20.(Hg-1201)
[308] *Physica C*, 198 (1992) 231-236 76.(La-0213)
[317] *Physica C*, 192 (1992) 13-17 67.(SrNd-0101)
[370] *Phys. Rev. B*, 50 (1994) 4260 22.(Hg-1223)
[371] *Science*, 262 (1993) 97-99 22.(Hg-1223)
[372] *Science*, 264 (1994) 794-795
[373] *Science*, 292 (2001) 75-77
[374] *Phys. Rev. B*, 70 (2004) 214502
[375] *Int. J. Mod. Phys. B*, 19 (2005) 335-337
[376] *Physica C*, 408 (2004) 23-24
[377] *Phys. Rev. B*, 69 (2004) 104508
[378] *Phys. Rev. B*, 67 (2003) 212102
[379] *Phys. Rev. B*, 76 (2007) 014432
[380] *Phys. Rev. B*, 71 (2005) 104513 101.(LaNd-0201)
[381] *Phys. Rev. B*, 60 (1999) 009827
[382] *Chem. Mater.*, 13 (2001) 2905-2908 99.(Au-1223) 100.(Au-1234)
[383] *Physica C*, 276 (1997) 237 98.(Au-1212)
[384] *Physica C*, 262 (1996) 151
[385] *Nature*, 365 (1993) 323
[386] *Physica C*, 213 (1992) 266
[387] *Physica C*, 223 (1994) 238
[388] *Physica C*, 223 (1994) 243

These references cover literature which was analyzed in preparation of the extended Table.