Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{O00Y}=38 /360; h^*_{C00V}=236 /360
$l^*_{lab*}=(L^*-L^*_N)/(L^*_W-L^*_N)$
$a^*_a=a^*-a^*_N-l^*_{lab*}[a^*_W-a^*_N]$
$b^*_a=b^*-b^*_N-l^*_{lab*}[b^*_W-b^*_N]$
$C^*_{ab,a}=[a^{*2}_a+b^{*2}_a]^{1/2}$
lightness L^*
chroma $C^*_{ab,a}$
JE920−1 N, 1

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{Y00L}=96 /360; h^*_{V00M}=305 /360
$l^*_{lab*}=(L^*-L^*_N)/(L^*_W-L^*_N)$
$a^*_a=a^*-a^*_N-l^*_{lab*}[a^*_W-a^*_N]$
$b^*_a=b^*-b^*_N-l^*_{lab*}[b^*_W-b^*_N]$
$C^*_{ab,a}=[a^{*2}_a+b^{*2}_a]^{1/2}$
lightness L^*
chroma $C^*_{ab,a}$
JE920−2 N, 1

Linear relation *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*) and *relative* CIELAB (c^*, t^*)
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{O00Y}=38 /360; h^*_{C00V}=236 /360
$l^*_M=(L^*_M-L^*_N)/(L^*_W-L^*_N)$
$t^*_{lab*}=l^*_{lab*}-c^*_{lab*}[l^*_M-0,5]$
$c^*_{lab*}=C^*_{ab,a}/C^*_{ab,a,M}$
M=Maximum colour
triangle lightness t^*_{lab*}
relative chroma c^*_{lab*}
JE921−1 N, 1

Linear relation *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*) and *relative* CIELAB (c^*, t^*)
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{Y00L}=96 /360; h^*_{V00M}=305 /360
$l^*_M=(L^*_M-L^*_N)/(L^*_W-L^*_N)$
$t^*_{lab*}=l^*_{lab*}-c^*_{lab*}[l^*_M-0,5]$
$c^*_{lab*}=C^*_{ab,a}/C^*_{ab,a,M}$
M=Maximum colour
triangle lightness t^*_{lab*}
relative chroma c^*_{lab*}
JE921−2 N, 1

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{L00C}=151 /360; h^*_{M00O}=354 /360
$l^*_{lab*}=(L^*-L^*_N)/(L^*_W-L^*_N)$
$a^*_a=a^*-a^*_N-l^*_{lab*}[a^*_W-a^*_N]$
$b^*_a=b^*-b^*_N-l^*_{lab*}[b^*_W-b^*_N]$
$C^*_{ab,a}=[a^{*2}_a+b^{*2}_a]^{1/2}$
lightness L^*
chroma $C^*_{ab,a}$
JE920−3 N, 1

Linear relation CIELAB (L^*, a^*, b^*) and *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*)
System: JE92_ORS20_95_D65_cmyn4*
$l^*_{lab*}=(L^*-L^*_N)/(L^*_W-L^*_N)$
$a^*_a=a^*-a^*_N-l^*_{lab*}[a^*_W-a^*_N]$
$b^*_a=b^*-b^*_N-l^*_{lab*}[b^*_W-b^*_N]$
$C^*_{ab,a}=[a^{*2}_a+b^{*2}_a]^{1/2}$
CIELAB hue angles:
$h_{ab,d}$=[34 , 92 , 143 , 226 , 312 , 337]
$h_{ab,ds}$=[34 , 92 , 143 , 226 , 311 , 337]
chroma a^*_a
JE920−4 N, 1

Linear relation *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*) and *relative* CIELAB (c^*, t^*)
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{L00C}=151 /360; h^*_{M00O}=354 /360
$l^*_M=(L^*_M-L^*_N)/(L^*_W-L^*_N)$
$t^*_{lab*}=l^*_{lab*}-c^*_{lab*}[l^*_M-0,5]$
$c^*_{lab*}=C^*_{ab,a}/C^*_{ab,a,M}$
M=Maximum colour
triangle lightness t^*_{lab*}
relative chroma c^*_{lab*}
JE921−3 N, 1

Linear relation *adapted (a)* CIELAB ($C^*_{ab,a}$, L^*) and *relative* CIELAB (c^*, t^*)
System: JE92_ORS20_95_D65_cmyn4*
$t^*_{lab*}=l^*_{lab*}-c^*_{lab*}[l^*_M-0,5]$
$c^*_{lab*}=C^*_{ab,a}/C^*_{ab,a,M}$
M=Maximum colour
CIELAB hue angles:
$h_{ab,d}$=[34 , 92 , 143 , 226 , 312 , 337]
$h_{ab,ds}$=[34 , 92 , 143 , 226 , 311 , 337]
JE921−4 N, 1

Adapted (a) CIELAB ($C^*_{ab,a}$, L^*) and *relative* CIELAB (c^*_{lab*}, l^*_{lab*})
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{O00Y}=38 /360; h^*_{C00V}=236 /360
$l^*_{lab*}=(L^*-L^*_N)/(L^*_W-L^*_N)$
$c^*_{lab*}=C^*_{ab,a}/C^*_{ab,a,M}$
M=Maximum colour
relative lightness l^*_{lab*}
relative chroma c^*_{lab*}
JE920−5 N, 1

Adapted (a) CIELAB ($C^*_{ab,a}$, L^*) and *relative* CIELAB (c^*_{lab*}, l^*_{lab*})
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{Y00L}=96 /360; h^*_{V00M}=305 /360
$l^*_{lab*}=(L^*-L^*_N)/(L^*_W-L^*_N)$
$c^*_{lab*}=C^*_{ab,a}/C^*_{ab,a,M}$
M=Maximum colour
relative lightness l^*_{lab*}
relative chroma c^*_{lab*}
JE920−6 N, 1

Linear relation *olv** and *relative* chroma c^*_{olv*} and triangle lightness t^*_{olv*}
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{O00Y}=38 /360; h^*_{C00V}=236 /360
Result: $c^*_{olv*}=c^*_{lab*}$; $t^*_{olv*}=t^*_{lab*}$
c^*_{olv*}=max (*olv**) − min (*olv**)
n^*=1 − max (*olv**)= 1 − i^*
w^*=min (*olv**)= 1 − d^*
$t^*_{olv*}=w^*+0,5\,c^*_{olv*}$
M=Maximum colour
triangle lightness t^*_{olv*}
relative chroma c^*_{olv*}
JE921−5 N, 1

Linear relation *olv** and *relative* chroma c^*_{olv*} and triangle lightness t^*_{olv*}
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{Y00L}=96 /360; h^*_{V00M}=305 /360
Result: $c^*_{olv*}=c^*_{lab*}$; $t^*_{olv*}=t^*_{lab*}$
c^*_{olv*}=max (*olv**) − min (*olv**)
n^*=1 − max (*olv**)= 1 − i^*
w^*=min (*olv**)= 1 − d^*
$t^*_{olv*}=w^*+0,5\,c^*_{olv*}$
M=Maximum colour
triangle lightness t^*_{olv*}
relative chroma c^*_{olv*}
JE921−6 N, 1

Adapted (a) CIELAB ($C^*_{ab,a}$, L^*) and *relative* CIELAB (c^*_{lab*}, l^*_{lab*})
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{L00C}=151 /360; h^*_{M00O}=354 /360
$l^*_{lab*}=(L^*-L^*_N)/(L^*_W-L^*_N)$
$c^*_{lab*}=C^*_{ab,a}/C^*_{ab,a,M}$
M=Maximum colour
relative lightness l^*_{lab*}
relative chroma c^*_{lab*}
JE921−7 N, 1

Adapted (a) CIELAB ($C^*_{ab,a}$, L^*) and *relative* CIELAB (c^*_{lab*}, l^*_{lab*})
System: JE92_ORS20_95_D65_cmyn4*
$l^*_{lab*}=(L^*-L^*_N)/(L^*_W-L^*_N)$
$c^*_{lab*}=C^*_{ab,a}/C^*_{ab,a,M}$
M=Maximum colour
CIELAB hue angles:
$h_{ab,d}$=[34 , 92 , 143 , 226 , 312 , 337]
$h_{ab,ds}$=[34 , 92 , 143 , 226 , 311 , 337]
JE921−8 N, 1

Linear relation *olv** and *relative* chroma c^*_{olv*} and triangle lightness t^*_{olv*}
System: JE92_ORS20_95_D65_cmyn4*
Hue: h^*_{L00C}=151 /360; h^*_{M00O}=354 /360
Result: $c^*_{olv*}=c^*_{lab*}$; $t^*_{olv*}=t^*_{lab*}$
c^*_{olv*}=max (*olv**) − min (*olv**)
n^*=1 − max (*olv**)= 1 − i^*
w^*=min (*olv**)= 1 − d^*
$t^*_{olv*}=w^*+0,5\,c^*_{olv*}$
M=Maximum colour
triangle lightness t^*_{olv*}
relative chroma c^*_{olv*}
JE921−7 N, 1

Linear relation *olv** and *relative* chroma c^*_{olv*} or chroma a^*_{olv*}, b^*_{olv*}
System: JE92_ORS20_95_D65_cmyn4*
Result: $c^*_{olv*}=c^*_{lab*}$; $t^*_{olv*}=t^*_{lab*}$
c^*_{olv*}=max (*olv**) − min (*olv**)
n^*=1 − max (*olv**)= 1 − i^*
w^*=min (*olv**)= 1 − d^*
$t^*_{olv*}=w^*+0,5\,c^*_{olv*}$
CIELAB hue angles:
b^*_{olv*}
relative chroma a^*_{olv*}
JE921−8 N, 1