

Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )

System: GG83\_HRS16\_96\_D65\_00%\_O0

$$l^*_{lab^*} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

$$a^*_{\bar{a}} = a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$

$$b^*_{\bar{a}} = b^* - b^*_N - l^*_{lab^*} [b^*_W - b^*_N]$$

$$C^*_{ab,a} = [a^{*2}_{\bar{a}} + b^{*2}_{\bar{a}}]^{1/2}$$

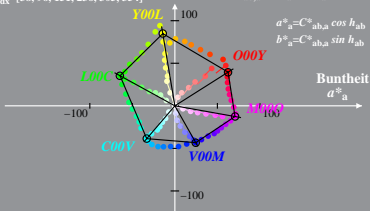
CIELAB-Bunttonwinkel:

$h_{ab,d} = [34, 99, 152, 232, 299, 349]$

$h_{ab,dx} = [38, 96, 151, 236, 305, 354]$

$$a^*_{\bar{a}} = C^*_{ab,a} \cos h_{ab}$$

$$b^*_{\bar{a}} = C^*_{ab,a} \sin h_{ab}$$



Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )

System: GG83\_HRS16\_96\_D65\_00%\_O1  $L^*_{lab^*} = (L^* - L^*_N) / (L^*_W - L^*_N)$

CIELAB-Bunttonwinkel:

$h_{ab,d} = [34, 99, 152, 232, 299, 349]$

$h_{ab,dx} = [38, 96, 151, 236, 305, 354]$

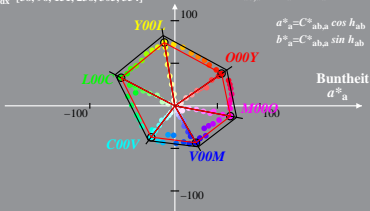
$$a^*_{\bar{a}} = a^* - a^*_N - L^*_{lab^*} [a^*_W - a^*_N]$$

$$b^*_{\bar{a}} = b^* - b^*_N - L^*_{lab^*} [b^*_W - b^*_N]$$

$$C^*_{ab,a} = [a^{*2}_{\bar{a}} + b^{*2}_{\bar{a}}]^{1/2}$$

$$a^*_{\bar{a}} = C^*_{ab,a} \cos h_{ab}$$

$$b^*_{\bar{a}} = C^*_{ab,a} \sin h_{ab}$$



Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )

System: GG83\_HRS16\_96\_D65\_25%\_O0

$$l^*_{lab^*} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

CIELAB-Bunttonwinkel:

$h_{ab,d} = [34, 99, 152, 232, 299, 349]$

$h_{ab,dx} = [52, 109, 172, 253, 317, 365]$

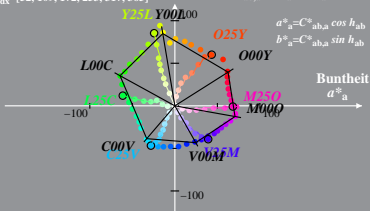
$$a^*_a = a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$

$$b^*_a = b^* - b^*_N - l^*_{lab^*} [b^*_W - b^*_N]$$

$$C^*_{ab,a} = [a^{*2}_a + b^{*2}_a]^{1/2}$$

$$a^*_a = C^*_{ab,a} \cos h_{ab}$$

$$b^*_a = C^*_{ab,a} \sin h_{ab}$$



Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )

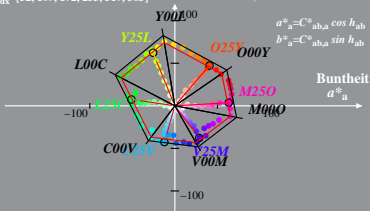
System: GG83\_HRS16\_96\_D65\_25%\_O1 
$$l^*_{lab*} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

CIELAB-Bunttonwinkel:

$h_{ab,d} = [34, 99, 152, 232, 299, 349]$

$h_{ab,dx} = [52, 109, 172, 253, 317, 365]$

$$\begin{aligned} a^*_a &= a^* - a^*_N - l^*_{lab*} [a^*_W - a^*_N] \\ b^*_a &= b^* - b^*_N - l^*_{lab*} [b^*_W - b^*_N] \\ C^*_{ab,a} &= [a^{*2}_a + b^{*2}_a]^{1/2} \end{aligned}$$



Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )

System: GG83\_HRS16\_96\_D65\_50%\_O0

$$l^*_{lab^*} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

$$a^*_{\bar{a}} = a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$

$$b^*_{\bar{a}} = b^* - b^*_N - l^*_{lab^*} [b^*_W - b^*_N]$$

$$C^*_{ab,a} = [a^{*2}_{\bar{a}} + b^{*2}_{\bar{a}}]^{1/2}$$

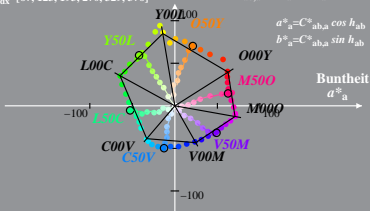
CIELAB-Bunttonwinkel:

$h_{ab,d} = [34, 99, 152, 232, 299, 349]$

$h_{ab,dx} = [67, 123, 193, 270, 329, 376]$

$$a^*_{\bar{a}} = C^*_{ab,a} \cos h_{ab}$$

$$b^*_{\bar{a}} = C^*_{ab,a} \sin h_{ab}$$



GG830-4A, 6; cfl=0.90; nt=0.18; nx=1.0

Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )

System: GG83\_HRS16\_96\_D65\_75%\_O0

$$l^*_{lab*} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

$$a^*_{\bar{a}} = a^* - a^*_N - l^*_{lab*} [a^*_W - a^*_N]$$

$$b^*_{\bar{a}} = b^* - b^*_N - l^*_{lab*} [b^*_W - b^*_N]$$

$$C^*_{ab,a} = [a^{*2}_{\bar{a}} + b^{*2}_{\bar{a}}]^{1/2}$$

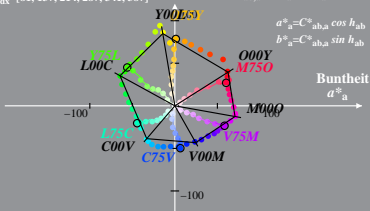
CIELAB-Bunttonwinkel:

$h_{ab,d} = [34, 99, 152, 232, 299, 349]$

$h_{ab,dx} = [81, 137, 214, 287, 341, 387]$

$$a^*_{\bar{a}} = C^*_{ab,a} \cos h_{ab}$$

$$b^*_{\bar{a}} = C^*_{ab,a} \sin h_{ab}$$



Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )

System: GG83\_HRS16\_96\_D65\_75%\_O1 
$$l^*_{lab*} = (L^* - L^*_N) / (L^*_W - L^*_N)$$

CIELAB-Bunttonwinkel:

$h_{ab,d} = [34, 99, 152, 232, 299, 349]$

$h_{ab,dx} = [81, 137, 214, 287, 341, 387]$

$$\begin{aligned} a^*_{\bar{a}} &= a^* - a^*_N - l^*_{lab*} [a^*_W - a^*_N] \\ b^*_{\bar{a}} &= b^* - b^*_N - l^*_{lab*} [b^*_W - b^*_N] \\ C^*_{ab,a} &= [a^{*2}_{\bar{a}} + b^{*2}_{\bar{a}}]^{1/2} \end{aligned}$$

$$a^*_{\bar{a}} = C^*_{ab,a} \cos h_{ab}$$

$$b^*_{\bar{a}} = C^*_{ab,a} \sin h_{ab}$$

