

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

System: HG82\_HRS16\_96\_D65\_00%\_O0

CIELAB-Bunttonwinkel:

$h_{ab,d}=[32, 99, 151, 233, 300, 349]$

$h_{ab,ex}=[26, 92, 162, 217, 272, 329]$

$h_{ab,e}=[26, 92, 162, 217, 272, 329]$

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

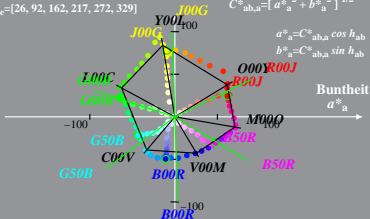
$$a^*_a=a^*-a^*_N-l^*_{lab*}[a^*_W-a^*_N]$$

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

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

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

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



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

System: HG82\_HRS16\_96\_D65\_00%\_O1

CIELAB-Bunttonwinkel:

$h_{ab,d}=[32, 99, 151, 233, 300, 349]$

$h_{ab,ex}=[26, 92, 162, 217, 272, 329]$

$h_{ab,e}=[26, 92, 162, 217, 272, 329]$

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

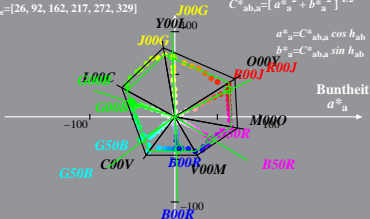
$$a^*_{*a}=a^*-a^*_N-l^*_{lab*}[a^*_W-a^*_N]$$

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

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

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

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



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

System: HG82\_HRS16\_96\_D65\_25%\_O0

CIELAB-Bunttonwinkel:

$h_{ab,d}=[32, 99, 151, 233, 300, 349]$

$h_{ab,ex}=[42, 109, 175, 230, 286, 343]$

$h_{ab,e}=[26, 92, 162, 217, 272, 329]$

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

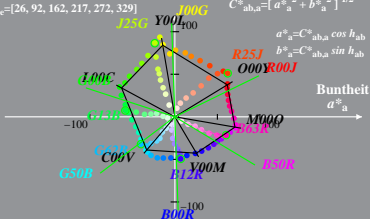
$$a^*_a=a^*-a^*_N-l^*_{lab*}[a^*_W-a^*_N]$$

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

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

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



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System: HG82\_HRS16\_96\_D65\_25%\_O1

CIELAB-Bunttonwinkel:

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

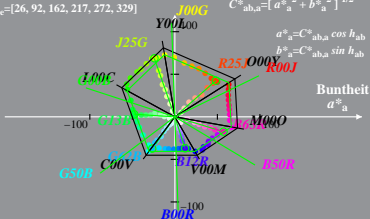
$$a^*_{*a}=a^*-a^*_N-l^*_{lab*}[a^*_W-a^*_N]$$

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

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

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

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



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

System: HG82\_HRS16\_96\_D65\_50%\_O0

CIELAB-Bunttonwinkel:

$h_{ab,d}=[32, 99, 151, 233, 300, 349]$

$h_{ab,ex}=[59, 127, 189, 244, 300, 357]$

$h_{ab,e}=[26, 92, 162, 217, 272, 329]$

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

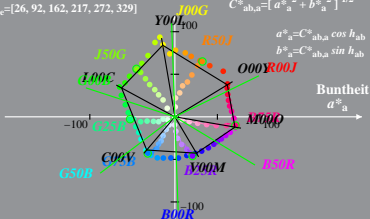
$$a^*_a=a^*-a^*_N-l^*_{lab*}[a^*_W-a^*_N]$$

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

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

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

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

System: HG82\_HRS16\_96\_D65\_50%\_O1

CIELAB-Bunttonwinkel:

$h_{ab,d}=[32, 99, 151, 233, 300, 349]$

$h_{ab,ex}=[59, 127, 189, 244, 300, 357]$

$h_{ab,e}=[26, 92, 162, 217, 272, 329]$

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

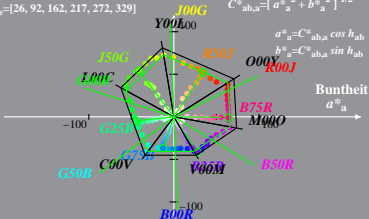
$$a^*_{\text{a}}=a^*-a^*_N-l^*_{lab*}[a^*_W-a^*_N]$$

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

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

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

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



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

System: HG82\_HRS16\_96\_D65\_75%\_O0

CIELAB-Bunttonwinkel:

$h_{ab,d}=[32, 99, 151, 233, 300, 349]$

$h_{ab,ex}=[75, 144, 203, 258, 314, 371]$

$h_{ab,e}=[26, 92, 162, 217, 272, 329]$

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

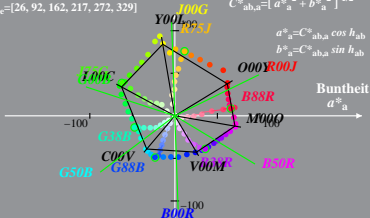
$$a^*_a=a^*-a^*_N-l^*_{lab*}[a^*_W-a^*_N]$$

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

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

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

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



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

System: HG82\_HRS16\_96\_D65\_75%\_O1  $L^*_{lab*} = (L^* - L^*_N) / (L^*_W - L^*_N)$

CIELAB-Bunttonwinkel:

$h_{ab,d} = [32, 99, 151, 233, 300, 349]$

$h_{ab,ex} = [75, 144, 203, 258, 314, 371]$

$h_{ab,e} = [26, 92, 162, 217, 272, 329]$

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

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

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

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

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

