

Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )  
System: ORS18

CIELAB-Bunttonwinkel:

$$h_{ab,d} = [37, 96, 150, 236, 305, 353]$$

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

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

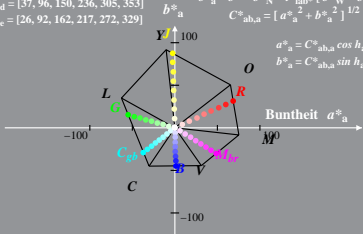
$$a^*_{\text{a}} = a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$

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

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

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

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





Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )  
System: FRS06

CIELAB-Bunttonwinkel:

$$h_{ab,d} = [36, 91, 143, 231, 312, 337]$$

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

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

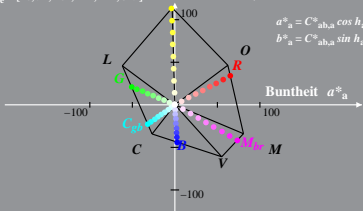
$$a^*_{\text{a}} = a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$

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

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

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

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



Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )  
System: TSL18

CIELAB-Bunttonwinkel:

$h_{ab,d} = [34, 103, 136, 196, 304, 328]$

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

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

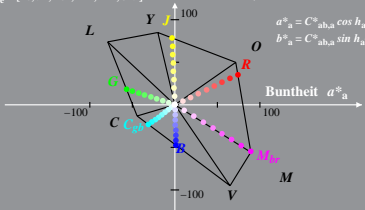
$$a^*_{\text{a}} = a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$

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

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

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

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



Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )  
System: NLS00

CIELAB-Bunttonwinkel:

$$h_{ab,d} = [29, 89, 150, 209, 270, 330]$$

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

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

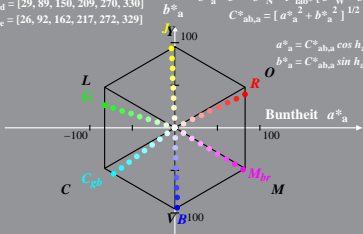
$$a^*_{\text{a}} = a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$

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

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

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

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



# Beziehung CIELAB ( $L^*$ , $a^*$ , $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ , $L^*$ ) System: NLS18

CIELAB-Bunttonwinkel:

$$h_{ab,d} = [30, 89, 149, 210, 270, 329]$$

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

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

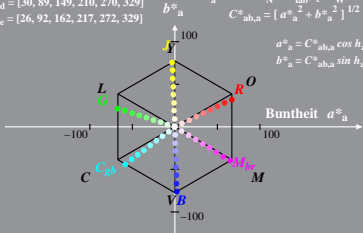
$$a^*_{\text{a}} = a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$

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

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

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

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



# Beziehung CIELAB ( $L^*$ , $a^*$ , $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ , $L^*$ ) System: NRS11

CIELAB-Buntonwinkel:

$h_{ab,d} = [23, 90, 167, 202, 272, 325]$

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

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

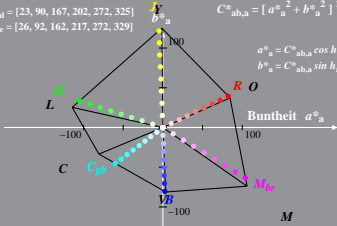
$$a^*_{\text{a}} = a^* - a^*_N - l^*_{lab^*} [a^*_W - a^*_N]$$

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

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

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

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



Beziehung CIELAB ( $L^*$ ,  $a^*$ ,  $b^*$ ) und *adaptiertes* (a) CIELAB ( $C^*_{ab,a}$ ,  $L^*$ )  
System: TLS70

CIELAB-Bunttonwinkel:

$$h_{ab,d} = [21, 107, 142, 197, 293, 326]$$

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

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

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

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

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

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

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

