

Dislocation structure in different texture components determined by neutron diffraction line profile analysis in a highly textured Zircaloy-2 rolled plate

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Supplementary Material / Appendix

Table 3. In order to keep the flow of the text Tables T3.2 to T3.17 are shown here in the Appendix. Table T3.1 corresponding to the grouping of the 10.0/20.0/30.0 type reflections is still within the body of the text. For the sake of easier reading the table caption is repeated here. Grouping of the reflections for the four different texture components. The numbers below the $hk.l$ values in parenthesis are the $K \equiv 1/d$ values in 1/nm. The relative intensities on the left or right hand side of the slash correspond to reflections obtained in the B1 or B2 detector measurements, respectively. The bold (red) numbers indicate reflections which appear only for one particular texture component in the specific measurement. These are the reflections which can be selected for line profile analysis. The tables labeled from T3.1 to T3.17 contain the intensity data for the 17 measured reflections. Though the higher harmonics are also used in the CMWP evaluation procedure, they are not registered in separate tables.

(T3.2)

$hk.l$ (1/d) 00.2/00.4/00.6 (3.88/7.77/11.66)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	0/0	0/0	0/0	24/0
44	0/ 23	0/0	0/0	0/0
45	0/0	0/ 23	0/0	0/0
46	0/0	0/0	0/0	2/0
47	0/0	0/0	0/0	2/0
48	0/0	0/0	0/0	0/3
49	0/0	0/0	0/0	12/0

(T3.3)

<i>hk.l</i> (1/d) 10.1/20.2 (4.07/8.13)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	4/3	3/3	0/0	0/1
44	2/0	1/1	3/1	0/ 11
45	1/1	2/0	3/2	0/3
46	16/25	14/0	2/7	0/22
47	16/26	15/2	2/1	0/3
48	5/ 22	5/ 6	1/4	4/0
49	8/22	7/0	0/6	0/5

(T3.4)

<i>hk.l</i> (1/d) 10.2/20.4 (5.27/10.55)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	10/0	10/0	0/0	0/0
44	0/0	0/0	0/10	0/15
45	0/0	0/0	0/6	0/ 26
46	21/9	21/0	0/1	4/2
47	18/3	18/17	0/8	7/0
48	0/ 12	0/ 27	0/0	0/6
49	19/4	20/0	0/0	0/0

(T3.5)

<i>hk.l</i> (1/d) 11.0 (6.19)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	0/2	0/2	27/0	0/ 18
44	1/0	1/ 23	2/0	17/0
45	1/ 23	1/0	2/0	17/0
46	0/0	0/ 26	5/2	0/0
47	0/0	0/0	1/0	0/ 7
48	4/0	4/0	25/1	3/0
49	0/0	0/21	6/3	0/5

(T3.6)

<i>hk.l</i> (1/d) 10.3 (6.83)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	7/0	7/0	0/0	4/0
44	0/3	0/0	0/11	0/6
45	0/0	0/3	0/4	0/20
46	6/1	6/0	0/0	20/0
47	4/0	5/18	0/19	21/0
48	0/2	0/16	0/0	0/19
49	9/1	9/0	0/0	9/0

(T3.7)

<i>hk.l</i> (1/d) 11.2 (7.31)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	11/0	11/0	0/0	0/0
44	1/0	0/0	0/7	1/9
45	0/1	1/0	0/20	4/3
46	5/5	4/2	0/11	1/1
47	5/3	3/3	0/1	0/6
48	3/5	3/2	0/0	11/0
49	7/4	6/2	1/13	0/4

(T3.8)

<i>hk.l</i> (1/d) 20.1 (7.40)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	1/20	1/20	2/20	0/4
44	20/0	19/1	19/0	3/2
45	19/2	20/0	21/1	3/0
46	3/9	1/0	14/6	0/21
47	4/17	2/0	19/0	0/7
48	13/6	12/0	3/22	5/0
49	1/14	0/1	11/5	0/9

(T3.9)

<i>hk.l</i> (1/d) 10.4 (8.55)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	3/0	3/0	0/0	16/0
44	0/15	0/0	0/8	0/2
45	0/0	0/15	0/0	0/10
46	1/0	2/0	0/0	28/0
47	1/0	2/11	0/20	26/0
48	0/0	0/6	0/0	0/ 30
49	4/1	2/0	0/0	26/0

(T3.10)

<i>hk.l</i> (1/d) 20.3 (9.22)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	7/0	7/0	0/0	0/0
44	0/0	0/0	1/5	0/ 17
45	0/0	0/0	0/3	0/ 16
46	26/21	26/0	0/4	0/7
47	25/12	25/8	0/3	1/0
48	0/ 23	1/ 20	0/0	1/2
49	19/10	19/0	0/2	0/1

(T3.11)

<i>hk.l</i> (1/d) 21.0 (9.45)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	0/12	0/12	16/11	0/29
44	11/0	12/ 29	12/0	27/0
45	13/ 29	13/0	12/0	30/0
46	0/0	0/ 33	21/3	0/4
47	0/0	0/0	12/0	0/13
48	11/0	12/0	32/ 10	6/0
49	0/0	0/28	21/5	0/14

(T3.12)

<i>hk.l</i> (1/d) 21.1 (9.65)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	0/15	0/15	36 /14	0/37
44	16/0	16/ 37	12/0	34/1
45	16/ 38	15/0	13/0	35/0
46	0/2	1/37	23 /19	0/11
47	0/6	0/0	14/0	0/ 30
48	28/2	29/1	36/ 17	24/0
49	0/8	0/40	25 /20	0/28

(T3.13)

<i>hk.l</i> (1/d) 11.4 (9.93)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	21 /0	21 /0	0/0	0/0
44	0/1	0/0	0/ 27	0/9
45	0/0	0/0	0/16	0/11
46	5/0	6/0	0/0	13/0
47	5/0	8/20	0/21	14/1
48	0/3	0/12	0/0	0/8
49	10 /0	12 /0	0/0	2/0

(T3.14)

<i>hk.l</i> (1/d) 21.2 (10.22)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	4/2	4/2	9/5	0/9
44	6/0	6/11	0/2	11/6
45	6/10	6/0	0/10	11/1
46	4/11	6/8	4/32	0/15
47	5 /14	5 /0	0/0	0/23
48	22/8	21/2	8/6	32/0
49	3/19	5/12	6/32	0/20

(T3.15)

<i>hk.l</i> (1/d) 10.5 (10.35)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	1/0	1/0	0/0	31 /0
44	0/ 32	0/0	0/5	0/0
45	0/0	0/ 33	0/0	0/6
46	0/0	0/0	0/0	30 /0
47	0/0	0/8	0/18	24 /0
48	0/0	0/3	0/0	0/ 32
49	3/0	1/0	0/0	40 /0

(T3.16)

<i>hk.l</i> (1/d) 21.3 (11.10)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	18 /0	18 /0	0/0	0/2
44	2/0	0/1	0/10	3/21
45	1/1	2/0	0/ 29	3/7
46	15 /18	15 /1	1/21	1/10
47	18 /15	15 /7	0/2	0/9
48	7 / 19	7 / 7	0/2	20/0
49	16 /16	16 /1	1/23	0/8

(T3.17)

<i>hk.l</i> (1/d) 30.2 (11.40)	Relative intensities in B1/B2 banks in the four texture components the bold (red) reflections are selected			
# of measurements	#1	#2	#3	#4
43	1/11	1/11	2/10	0/3
44	10/0	10/1	11/1	2/4
45	10/1	11/0	11/1	2/0
46	6/15	4/0	7/7	0/25
47	7 / 23	5/0	10/0	0/7
48	12 /11	10 /1	2/14	5/0
49	2/20	1/0	5/7	0/9