

INTERWOOLLABS OFDA OF 2025-1



INTERWOOLLABS Round Test OFDA - according to IWTO 47 Round Test 2025-1

MATERIALS

The eight wool tops used in this round test are referenced:

814 815 816 817 818 819 820 821

A laboratory result is the mean value of six individual measurements, obtained from two measurements of three test specimens from the same lot.

PARTICIPANTS

Laboratories that sent their results: 39

TYPES OF OFDA

BSC Electronics OFDA 100	BSC Electronics OFDA 2000	Other
18	19	2

INTERWOOLLABS TOLERANCE LIMITS FOR AIRFLOW/OFDA/LASERSCAN

Wool top fineness, μm	Limits, +/-, μm
≤ 20.00	0.3
20.01 – 24.00	0.4
24.01 – 28.00	0.5
28.01 – 32.00	0.6
32.01 – 36.00	0.7
>36.00	0.9

SUMMARY OF PERFORMANCE

Laboratories with	0 deviations	1 deviation	≥ 2 deviations
Count	33	3	3
Percentage, %	84	8	8
Sum passed, %	92		8

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MFD summary

	Top 814 (µm)	Top 815 (µm)	Top 816 (µm)	Top 817 (µm)	Top 818 (µm)	Top 819 (µm)	Top 820 (µm)	Top 821 (µm)
Average	16.48	18.56	19.53	23.64	26.49	27.08	32.37	34.94
Stddev	0.11	0.11	0.11	0.17	0.23	0.23	0.24	0.35
CV	0.69	0.62	0.57	0.71	0.85	0.86	0.73	1.01
Min	16.27	18.33	19.3	23.35	20.37	26.55	31.6	34.13
Max	17.37	18.93	19.85	24.36	27.09	28.59	33.17	36.13
n	39	39	39	39	39	39	39	39
Reference	16.48	18.56	19.53	23.64	26.49	27.08	32.37	34.94
Limit	0.3	0.3	0.3	0.4	0.5	0.5	0.7	0.7

CV summary

	Top 814 (%)	Top 815 (%)	Top 816 (%)	Top 817 (%)	Top 818 (%)	Top 819 (%)	Top 820 (%)	Top 821 (%)
Average	19.54	21.96	21.65	25.21	22.95	22.99	27.51	26.7
Stddev	0.89	0.59	0.56	0.55	0.44	0.51	0.47	0.41
CV	4.57	2.7	2.61	2.18	1.94	2.21	1.69	1.52
Min	18.2	20.77	20.62	22.35	22.05	22.19	26.8	25.78
Max	24.08	23.2	23.27	30.82	25.82	25.22	28.93	28.07
n	39	39	39	39	39	39	39	39

Mean Fibre Curvature summary, deg/mm (calibrated)

	Top 814	Top 815	Top 816	Top 817	Top 818	Top 819	Top 820	Top 821
Average	74.3	69.9	66.2	64.6	61.1	58.2	46.8	41.9
Stddev	4.6	3.9	3.7	4.0	3.1	3.2	3.3	3.3
CV	6.2	5.5	5.5	6.2	5.1	5.4	7.1	7.8
Min	51	49	48	48	42	41	35	31
Max	85	81	76	74	71	67	77	50
n	37	37	37	37	37	37	37	37

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Mean Fibre Diameter

	Top 814 (µm)	Top 815 (µm)	Top 816 (µm)	Top 817 (µm)	Top 818 (µm)	Top 819 (µm)	Top 820 (µm)	Top 821 (µm)
Average	16.48	18.56	19.53	23.64	26.49	27.08	32.37	34.94
Stddev	0.11	0.11	0.11	0.17	0.23	0.23	0.24	0.35
CV	0.69	0.62	0.57	0.71	0.85	0.86	0.73	1.01
Min	16.27	18.33	19.3	23.35	20.37	26.55	31.6	34.13
Max	17.37	18.93	19.85	24.36	27.09	28.59	33.17	36.13
n	39	39	39	39	39	39	39	39
Lab.	Top 814 (µm)	Top 815 (µm)	Top 816 (µm)	Top 817 (µm)	Top 818 (µm)	Top 819 (µm)	Top 820 (µm)	Top 821 (µm)
4203	16.47	18.55	19.52	23.61	26.57	27.18	32.52	35.05
4204	16.38	18.69	19.5	23.68	26.6	27.26	32.36	35.35
4208	16.32	18.38	19.35	23.7	26.82	27.02	32.3	34.73
4209	16.6	18.75	19.85 () #	23.83	26.7	27.17	32.52	35.22
4215	16.57	18.6	19.59	23.67	26.55	27.24	32.44	35.27
4216	16.37	18.4	19.3	23.47	26.28	27.03	32.49	35.0
4219	16.42	18.33	19.45	23.35	26.23	26.87	32.1	34.66
4222	16.52	18.73	19.68	24.08 #	26.9	27.48	33.02	35.02
4229	16.3	18.48	19.53	23.77	26.48	27.35	32.4	35.46
4233	16.57	18.65	19.6	23.6	26.52	27.08	32.4	34.73
4245	16.51	18.61	19.56	23.65	26.58	27.05	32.34	34.98
4246	16.58	18.55	19.47	23.67	26.43	27.05	32.3	34.97
4247	16.33	18.52	19.55	23.68	26.28	27.12	32.58	35.08
4252	16.5	18.57	19.57	23.61	26.52	27.03	32.23	35.03
4256	16.73	18.65	19.64	23.93	26.75	27.08	32.36	34.65
4257	16.7	18.7	19.6	23.61	26.38	27.03	32.02	34.64
4258	16.58	18.54	19.52	23.47	26.12	26.93	32.18	35.09
4259	16.48	18.55	19.48	23.6	26.57	27.33	32.45	34.92
4260	16.51	18.69	19.59	23.71	26.73	27.22	32.55	35.1
4261	16.47	18.41	19.41	23.46	26.12	26.55 #	32.06	34.51
4262	16.58	18.6	19.52	23.41	26.33	27.08	32.15	34.61
4263	16.53	18.54	19.46	23.52	26.24	26.73	32.08	35.07
4264	16.43	18.41	19.34	23.37	26.38	26.99	32.04	34.31
4266	16.6	18.54	19.46	23.46	26.24	26.74	31.98	34.57
4267	16.55	18.63	19.58	23.77	26.43	27.07	32.43	35.05
4268	16.54	18.58	19.59	23.73	26.48	27.15	32.2	35.56
4269	16.54	18.78	19.82	24.36 () #	27.09 #	27.8 #	33.17 () #	36.13 () #
4270	16.48	18.53	19.42	23.7	26.32	26.95	32.4	35.08
4271	16.42	18.48	19.5	23.53	26.43	27.03	32.57	34.63
4274	16.27	18.45	19.51	23.63	26.44	26.96	32.23	34.71
4279	16.65	18.8	19.77	24.04	26.88	27.33	32.84	35.58
4280	16.36	18.53	19.59	23.77	26.35	27.0	32.54	34.98
4281	16.36	18.61	19.63	23.54	26.42	27.0	32.44	34.89
4283	16.37	18.52	19.48	23.5	26.52	27.04	32.3	34.98
4284	16.36	18.38	19.37	23.42	26.37	26.81	32.0	34.96
4286	17.37 () #	18.57	19.59	23.58	26.21	28.59 () #	31.6 () #	34.13 #
4294	16.46	18.93 () #	19.65	23.8	20.37 () #	26.68	32.53	34.27
4296	16.34	18.45	19.37	23.52	26.7	27.33	32.59	35.39
4301	16.36	18.6	19.52	23.69	26.76	27.38	32.7	35.6

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Deviation from Average

	Top 814 (µm)	Top 815 (µm)	Top 816 (µm)	Top 817 (µm)	Top 818 (µm)	Top 819 (µm)	Top 820 (µm)	Top 821 (µm)	Out of limits
Reference	16.48	18.56	19.53	23.64	26.49	27.08	32.37	34.94	Out:
Limit	0.3	0.3	0.3	0.4	0.5	0.5	0.7	0.7	>=2
4203	-0.01	-0.01	-0.01	-0.03	0.08	0.1	0.15	0.11	0
4204	-0.1	0.13	-0.03	0.04	0.11	0.18	-0.01	0.41	0
4208	-0.16	-0.18	-0.18	0.06	0.33	-0.06	-0.07	-0.21	0
4209	0.12	0.19	0.32 #	0.19	0.21	0.09	0.15	0.28	1
4215	0.09	0.04	0.06	0.03	0.06	0.16	0.07	0.33	0
4216	-0.11	-0.16	-0.23	-0.17	-0.21	-0.05	0.12	0.06	0
4219	-0.06	-0.23	-0.08	-0.29	-0.26	-0.21	-0.27	-0.28	0
4222	0.04	0.17	0.15	0.44 #	0.41	0.4	0.65	0.08	1
4229	-0.18	-0.08	0.0	0.13	-0.01	0.27	0.03	0.52	0
4233	0.09	0.09	0.07	-0.04	0.03	0.0	0.03	-0.21	0
4245	0.03	0.05	0.03	0.01	0.09	-0.03	-0.03	0.04	0
4246	0.1	-0.01	-0.06	0.03	-0.06	-0.03	-0.07	0.03	0
4247	-0.15	-0.04	0.02	0.04	-0.21	0.04	0.21	0.14	0
4252	0.02	0.01	0.04	-0.03	0.03	-0.05	-0.14	0.09	0
4256	0.25	0.09	0.11	0.29	0.26	0.0	-0.01	-0.29	0
4257	0.22	0.14	0.07	-0.03	-0.11	-0.05	-0.35	-0.3	0
4258	0.1	-0.02	-0.01	-0.17	-0.37	-0.15	-0.19	0.15	0
4259	0.0	-0.01	-0.05	-0.04	0.08	0.25	0.08	-0.02	0
4260	0.03	0.13	0.06	0.07	0.24	0.14	0.18	0.16	0
4261	-0.01	-0.15	-0.12	-0.18	-0.37	-0.53 #	-0.31	-0.43	1
4262	0.1	0.04	-0.01	-0.23	-0.16	0.0	-0.22	-0.33	0
4263	0.05	-0.02	-0.07	-0.12	-0.25	-0.35	-0.29	0.13	0
4264	-0.05	-0.15	-0.19	-0.27	-0.11	-0.09	-0.33	-0.63	0
4266	0.12	-0.02	-0.07	-0.18	-0.25	-0.34	-0.39	-0.37	0
4267	0.07	0.07	0.05	0.13	-0.06	-0.01	0.06	0.11	0
4268	0.06	0.02	0.06	0.09	-0.01	0.07	-0.17	0.62	0
4269	0.06	0.22	0.29	0.72 #	0.6 #	0.72 #	0.8 #	1.19 #	5
4270	0.0	-0.03	-0.11	0.06	-0.17	-0.13	0.03	0.14	0
4271	-0.06	-0.08	-0.03	-0.11	-0.06	-0.05	0.2	-0.31	0
4274	-0.21	-0.11	-0.02	-0.01	-0.05	-0.12	-0.14	-0.23	0
4279	0.17	0.24	0.24	0.4	0.39	0.25	0.47	0.64	0
4280	-0.12	-0.03	0.06	0.13	-0.14	-0.08	0.17	0.04	0
4281	-0.12	0.05	0.1	-0.1	-0.07	-0.08	0.07	-0.05	0
4283	-0.11	-0.04	-0.05	-0.14	0.03	-0.04	-0.07	0.04	0
4284	-0.12	-0.18	-0.16	-0.22	-0.12	-0.27	-0.37	0.02	0
4286	0.89 #	0.01	0.06	-0.06	-0.28	1.51 #	-0.77 #	-0.81 #	4
4294	-0.02	0.37 #	0.12	0.16	-6.12 #	-0.4	0.16	-0.67	2
4296	-0.14	-0.11	-0.16	-0.12	0.21	0.25	0.22	0.45	0
4301	-0.12	0.04	-0.01	0.05	0.27	0.3	0.33	0.66	0

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Coefficient of Variation of Fibre Diameter Distribution / Mean CV %

	Top 814 (%)	Top 815 (%)	Top 816 (%)	Top 817 (%)	Top 818 (%)	Top 819 (%)	Top 820 (%)	Top 821 (%)
Average	19.54	21.96	21.65	25.21	22.95	22.99	27.51	26.7
Stddev	0.89	0.59	0.56	0.55	0.44	0.51	0.47	0.41
CV	4.57	2.7	2.61	2.18	1.94	2.21	1.69	1.52
Min	18.2	20.77	20.62	22.35	22.05	22.19	26.8	25.78
Max	24.08	23.2	23.27	30.82	25.82	25.22	28.93	28.07
n	39	39	39	39	39	39	39	39
Lab.	Top 814 (%)	Top 815 (%)	Top 816 (%)	Top 817 (%)	Top 818 (%)	Top 819 (%)	Top 820 (%)	Top 821 (%)
4203	20.71	23.2	23.27 ()	26.32	23.7	23.92	28.93 ()	27.7
4204	19.98	22.18	21.83	25.57	23.41	23.07	28.12	27.07
4208	20.02	22.57	22.14	25.74	23.12	23.57	28.22	28.07 ()
4209	18.9	21.57	21.47	25.15	23.1	23.0	27.4	26.28
4215	18.95	21.67	21.34	24.77	22.76	22.91	27.21	26.78
4216	20.11	22.99	22.79	26.56	23.9	23.71	28.12	27.24
4219	19.24	21.93	21.6	25.5	22.99	23.01	27.84	26.66
4222	18.58	21.73	21.2	24.66	22.56	22.69	26.9	26.55
4229	19.47	22.32	21.88	25.42	23.32	22.97	27.94	26.79
4233	19.97	22.3	21.73	25.34	22.63	22.79	27.28	26.64
4245	18.94	21.77	21.51	25.21	22.77	23.07	27.95	26.9
4246	19.3	21.94	21.8	30.82 ()	22.81	23.07	27.58	26.62
4247	19.58	22.18	21.53	25.34	22.73	22.84	27.34	26.38
4252	19.82	22.15	22.19	25.83	23.26	23.77	28.01	26.94
4256	18.63	21.26	20.86	24.55	22.52	22.34	27.31	26.24
4257	18.66	21.26	20.91	24.56	22.51	22.74	27.26	26.52
4258	18.2	20.77	20.62	24.23	22.05	22.27	26.85	25.78
4259	19.02	21.85	21.6	25.37	22.91	23.13	28.1	27.25
4260	19.48	21.5	21.11	24.88	22.83	22.85	27.2	27.0
4261	19.37	21.8	21.48	24.9	22.9	23.08	27.57	27.0
4262	18.58	21.02	20.85	24.26	22.41	22.19	27.12	26.61
4263	18.9	21.44	21.36	25.24	23.01	22.95	28.14	26.77
4264	18.36	21.22	20.82	24.67	22.38	22.43	27.08	26.47
4266	19.1	21.47	21.07	24.72	22.71	22.7	27.39	26.76
4267	22.05	22.28	21.75	25.23	22.8	22.89	27.0	26.68
4268	18.81	21.4	21.19	24.92	22.83	22.61	27.52	26.71
4269	19.47	22.53	22.07	25.58	23.37	23.23	27.41	26.38
4270	20.63	22.73	22.19	25.36	23.45	22.78	27.5	26.74
4271	19.07	21.8	21.62	25.16	22.89	22.68	27.53	26.79
4274	19.59	22.06	21.56	24.92	22.93	22.94	27.12	26.45
4279	19.47	21.85	21.48	25.02	22.97	22.82	27.13	26.33
4280	20.03	22.37	21.75	25.03	22.83	22.82	26.97	26.15
4281	21.17	23.0	22.7	25.7	23.73	23.78	28.15	26.97
4283	19.74	21.94	21.98	24.8	22.4	22.2	26.8	26.4
4284	19.31	22.36	21.96	25.43	23.01	23.34	27.7	26.59
4286	24.08 ()	21.19	22.49	22.35 ()	23.53	25.22 ()	27.18	26.59
4294	21.78	22.45	22.37	25.82	25.82 ()	24.32	27.9	27.6
4296	18.68	21.29	20.94	24.57	22.17	22.22	26.98	25.87
4301	20.69	22.99	22.84	26.33	23.81	23.89	28.7	27.28

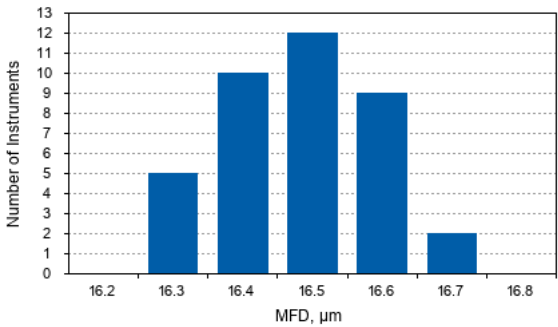
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Mean Fibre Curvature, deg/mm (calibrated)

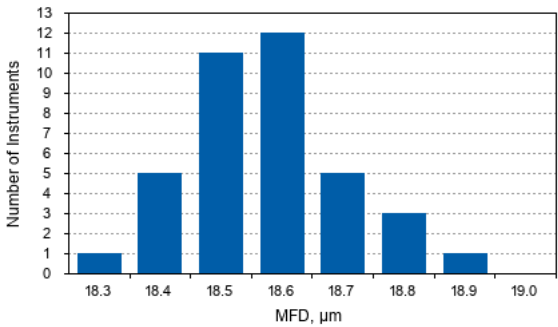
	Top 814	Top 815	Top 816	Top 817	Top 818	Top 819	Top 820	Top 821
Average	74.3	69.9	66.2	64.6	61.1	58.2	46.8	41.9
Stddev	4.6	3.9	3.7	4.0	3.1	3.2	3.3	3.3
CV	6.2	5.5	5.5	6.2	5.1	5.4	7.1	7.8
Min	51	49	48	48	42	41	35	31
Max	85	81	76	74	71	67	77	50
n	37	37	37	37	37	37	37	37
Lab.	Top 814	Top 815	Top 816	Top 817	Top 818	Top 819	Top 820	Top 821
4203	68	67	63	60	57	56	44	41
4204	74	69	66	67	62	57	48	40
4208	73	69	65	65	61	58	46	40
4209	75	72	68	65	63	59	47	43
4215	85	69	62	59	59	55	55	39
4216	72	69	65	68	59	57	43	37
4219	75	70	67	68	62	59	48	42
4222	75	69	65	61	60	57	46	42
4229	75	70	64	66	60	58	49	42
4233	74	69	66	66	61	58	48	42
4245	62	58	57	56	54	51	43	39
4246	75	71	65	64	60	59	48	44
4247	72	70	67	68	62	60	47	42
4252	75	69	66	66	61	58	49	41
4256	73	72	67	64	63	61	48	44
4257	73	69	68	67	61	57	47	41
4258	76	74	70	68	64	60	48	44
4259	68	66	63	63	58	55	46	41
4260	69	69	65	64	58	56	47	44
4261	75	72	67	66	62	59	46	42
4262	75	68	67	67	60	58	48	43
4263	77	70	68	66	60	59	45	42
4264	77	73	70	66	63	62	49	47
4267	75	69	66	67	62	59	47	41
4268	74	70	67	66	62	59	48	41
4269	74	70	67	65	60	59	46	39
4270	74	70	66	63	62	59	47	44
4271	67	65	64	62	61	60	53	50
4274	85	80	75	69	68	64	48	45
4279	74	70	65	65	61	58	47	41
4280	72	71	68	65	64	59	46	43
4281	74	71	67	64	62	59	49	45
4284	75	71	69	67	62	58	46	41
4286	84	81	76	74	71	67	77 ()	49
4294	81	64	57	56	54	48	49	33
4296	57 ()	54 ()	52 ()	53	47 ()	46 ()	39	35
4301	51 ()	49 ()	48 ()	48 ()	42 ()	41 ()	35	31 ()

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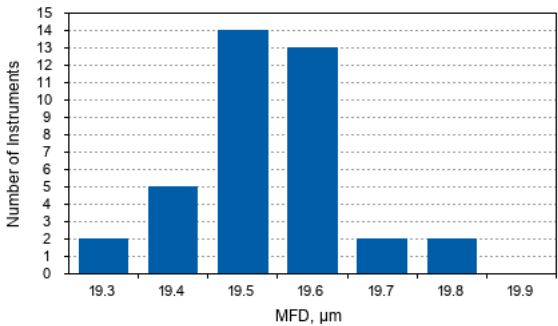
Top 814 Mean Fibre Diameter Distribution



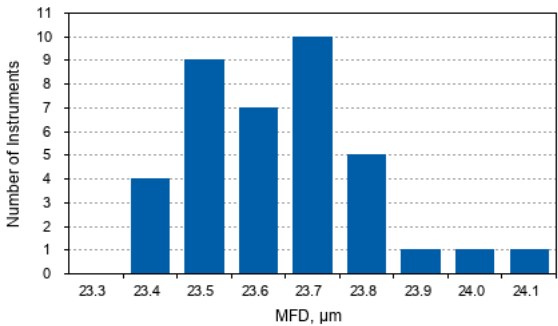
Top 815 Mean Fibre Diameter Distribution



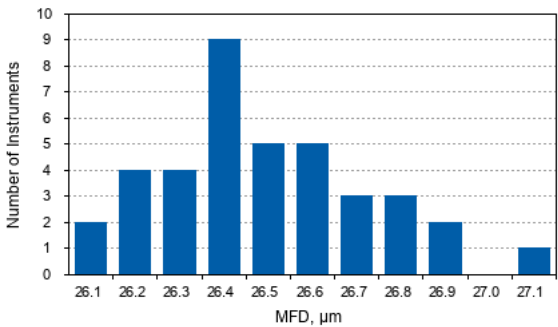
Top 816 Mean Fibre Diameter Distribution



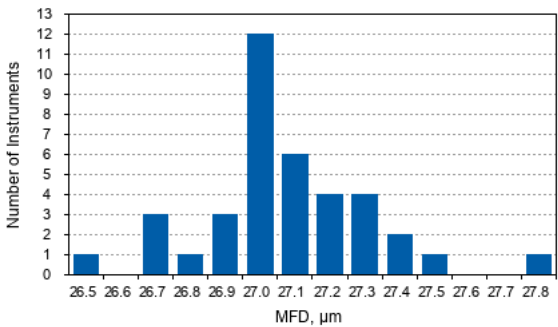
Top 817 Mean Fibre Diameter Distribution



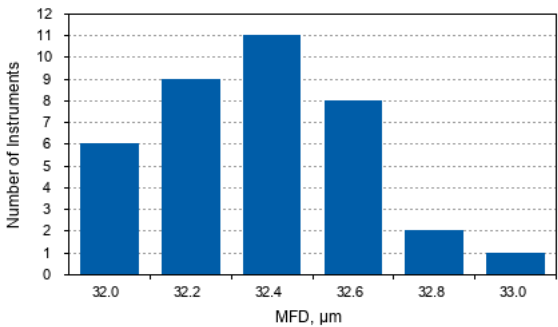
Top 818 Mean Fibre Diameter Distribution



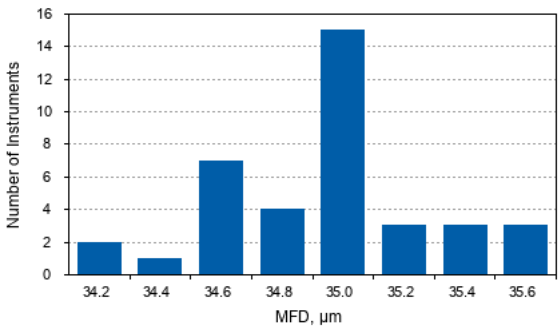
Top 819 Mean Fibre Diameter Distribution



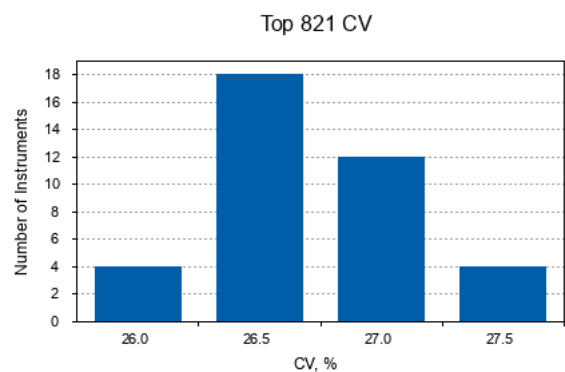
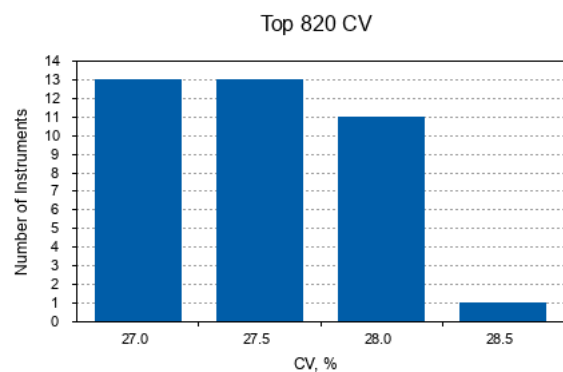
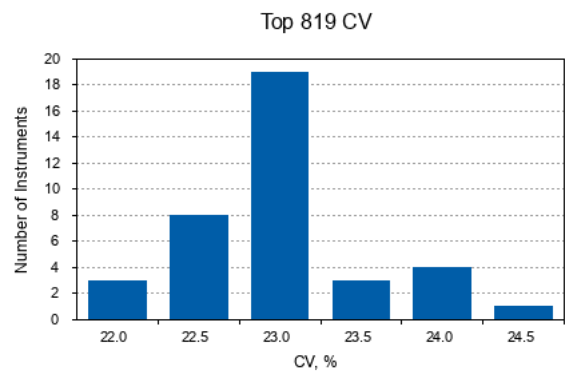
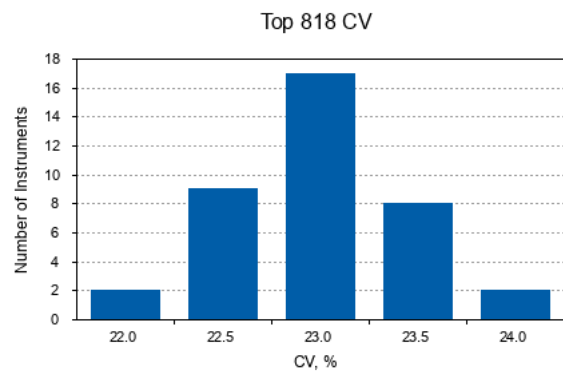
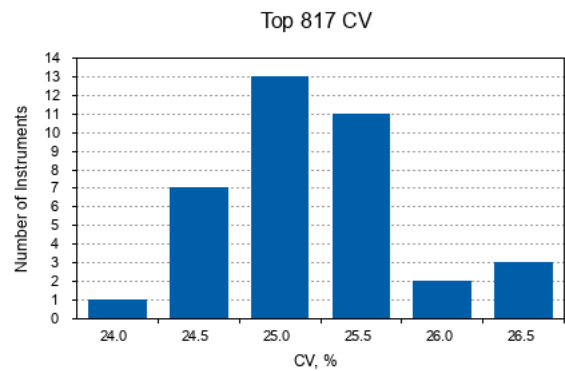
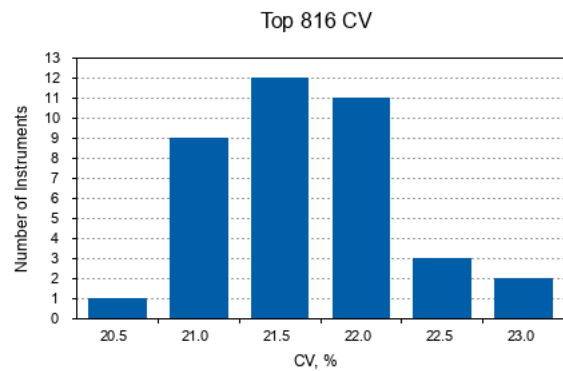
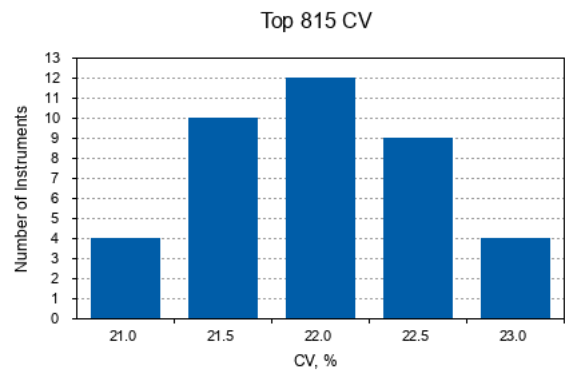
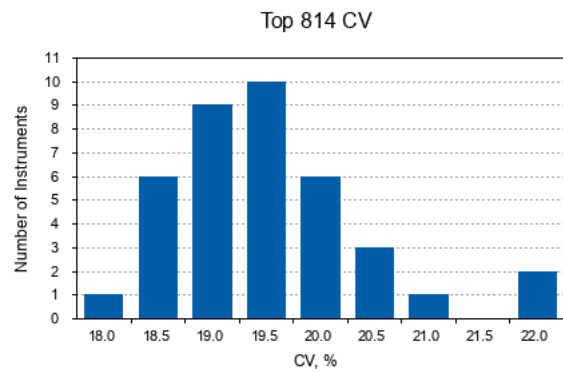
Top 820 Mean Fibre Diameter Distribution



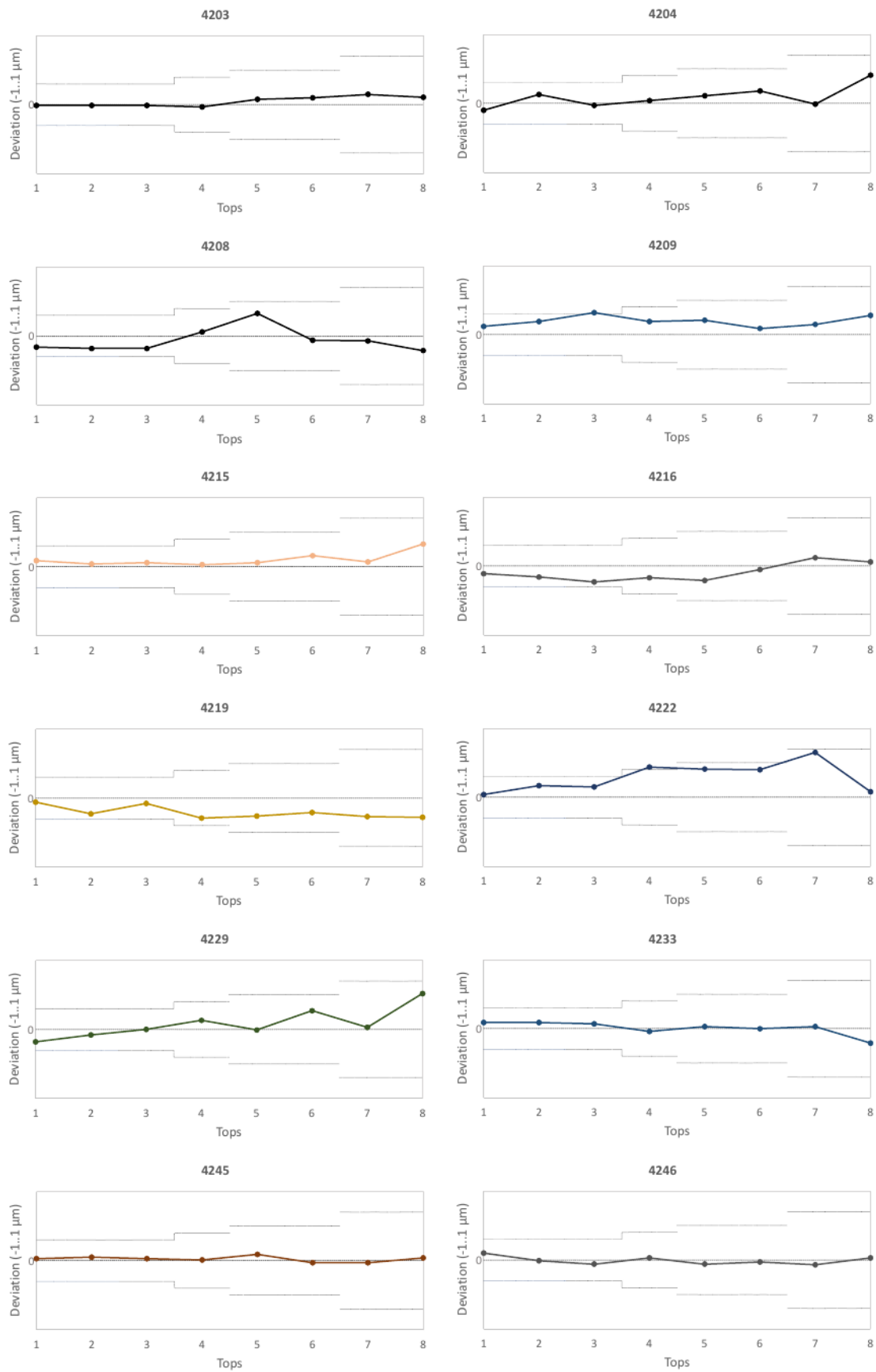
Top 821 Mean Fibre Diameter Distribution



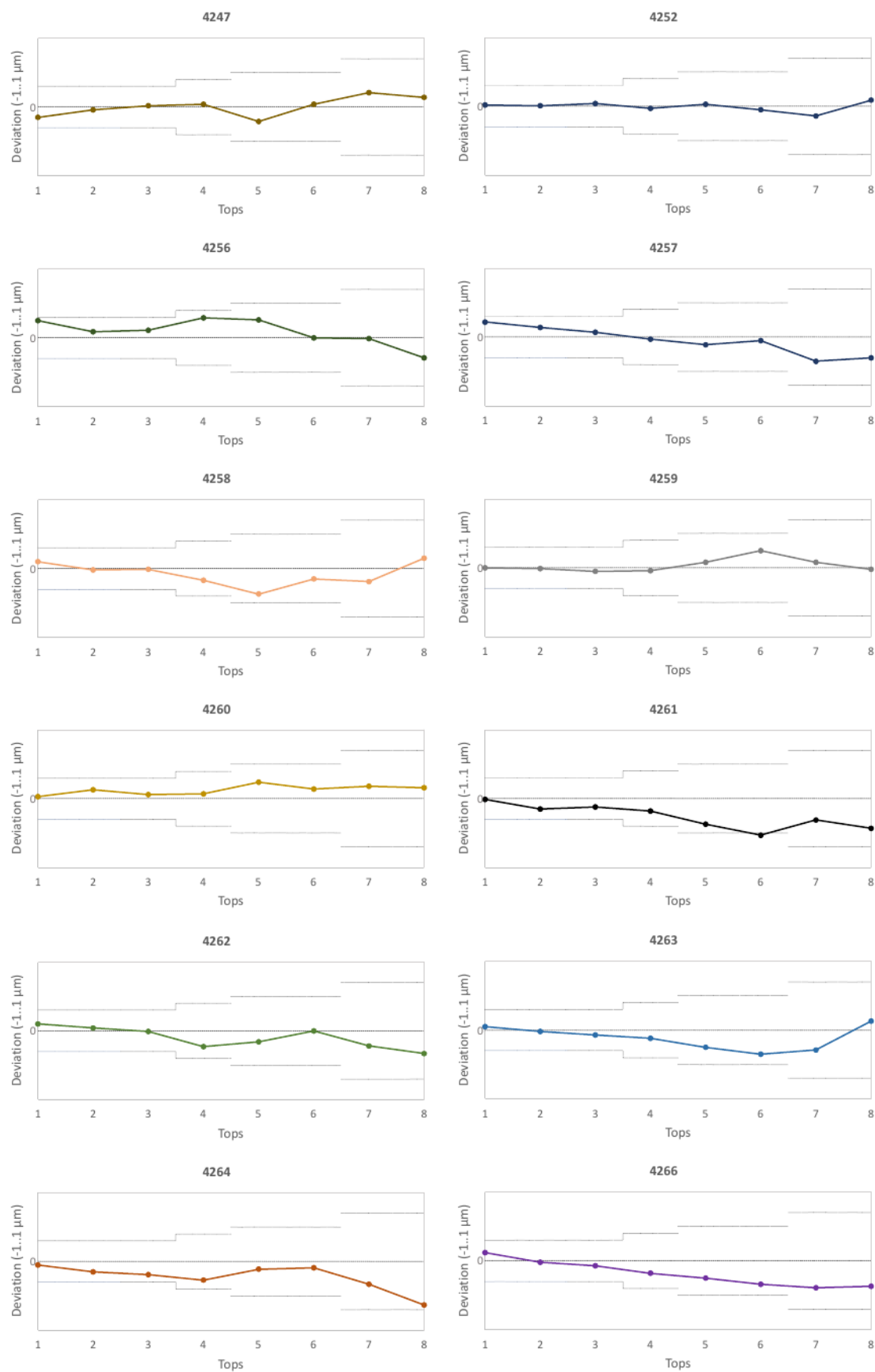
INTERWOOLLABS OFDA OF 2025-1



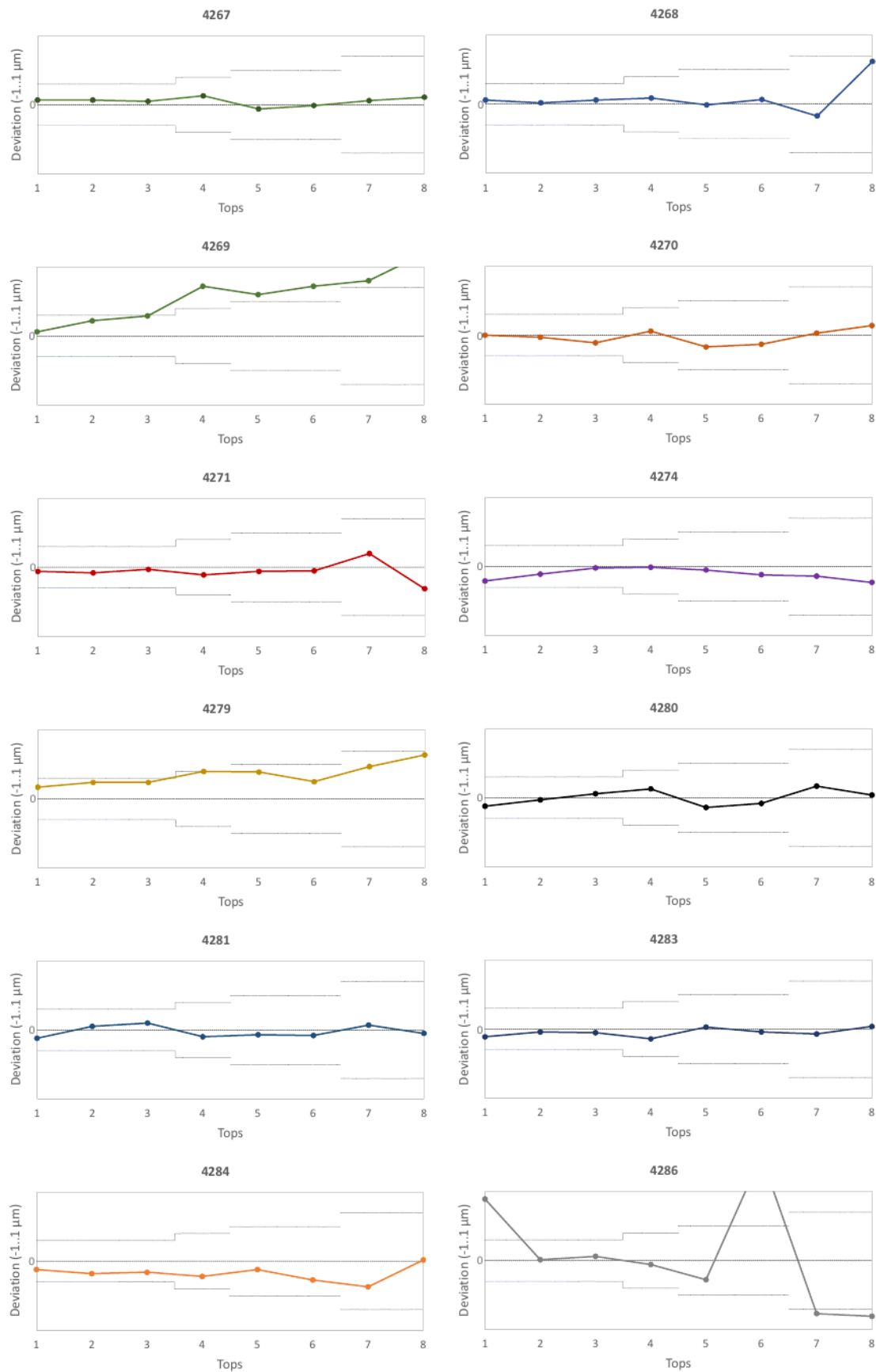
INTERWOOLLABS OFDA OF 2025-1



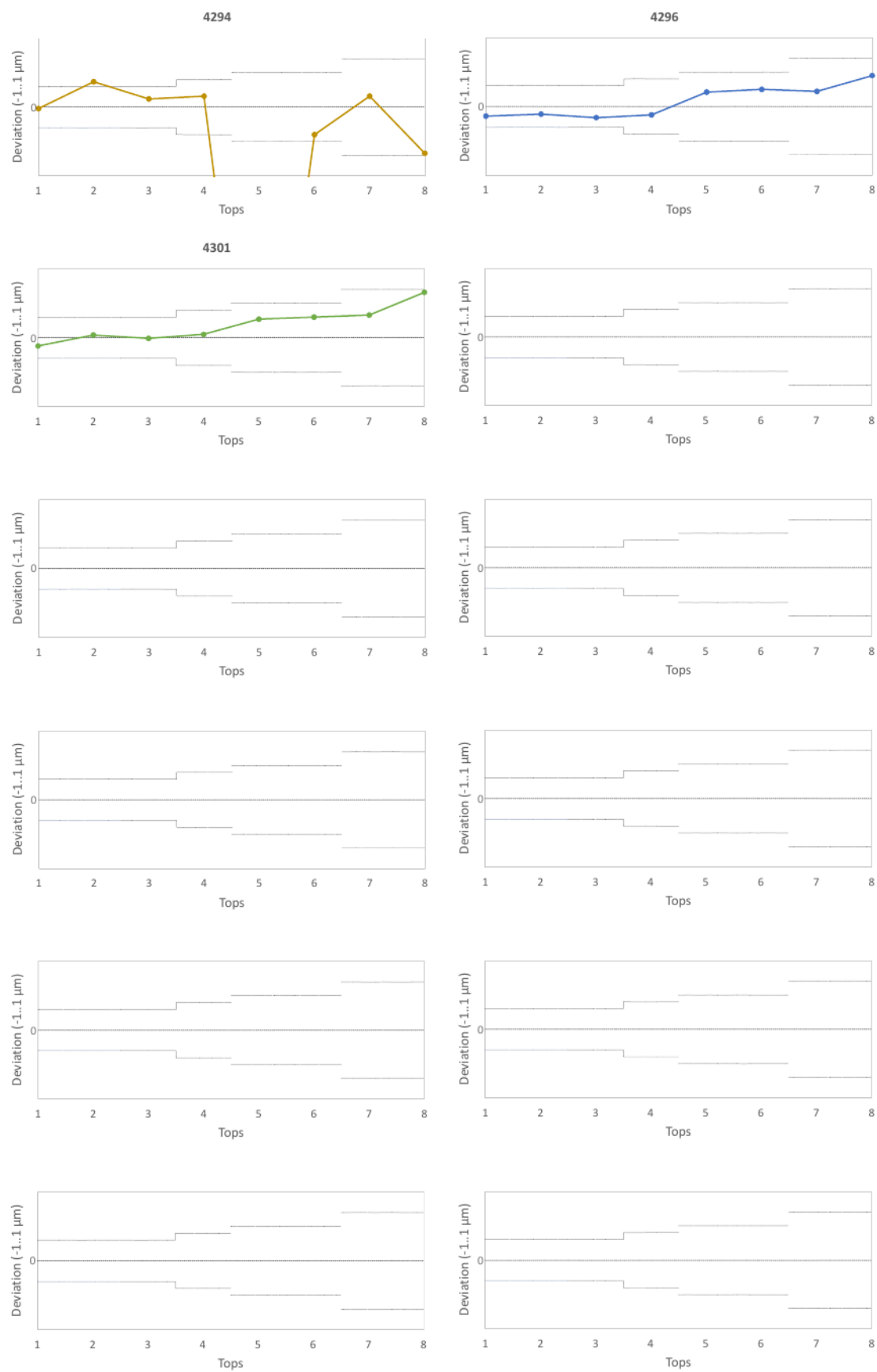
INTERWOOLLABS OFDA OF 2025-1



INTERWOOLLABS OFDA OF 2025-1



INTERWOOLLABS OFDA OF 2025-1



INTERWOOLLABS OFDA OF 2025-1