

Top view of the positions of orientation areas O1 to O4 and measurement areas M1 to M4 on the forearms of the subject to be tested. For scaling purposes, a metric scale (left scaling) is placed on the table.

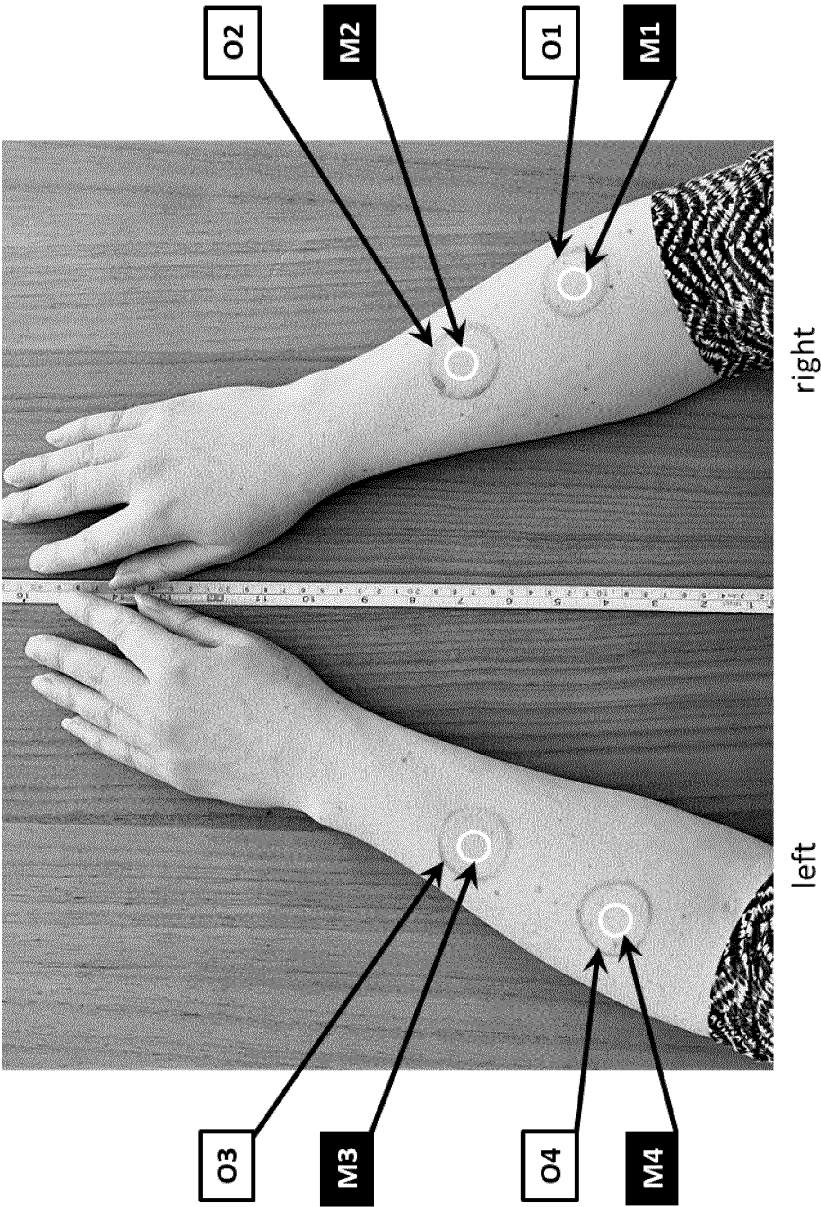
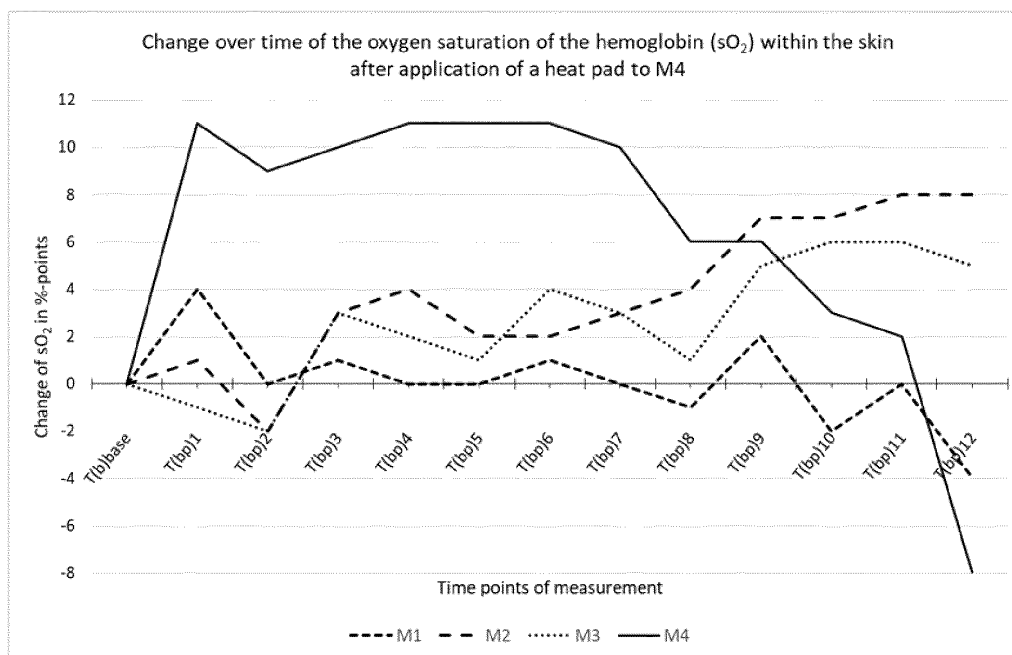


Fig. 1

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Oxygen saturation of hemoglobin (sO_2) measured by O2C when using a heat pad



a): Values obtained for the sO_2 in % in measurement areas M1 to M4 before $T(b)_{base}$ and after applying the heat pad to M4 at time points $T(bp)_1$ to $T(bp)_{12}$

	$T(bp)_{base}$	$T(bp)_1$	$T(bp)_2$	$T(bp)_3$	$T(bp)_4$	$T(bp)_5$	$T(bp)_6$	$T(bp)_7$	$T(bp)_8$	$T(bp)_9$	$T(bp)_{10}$	$T(bp)_{11}$	$T(bp)_{12}$
M1	64	68	64	65	64	64	65	64	63	66	62	64	60
M2	62	63	60	65	66	64	64	65	66	69	69	70	70
M3	68	67	66	71	70	69	72	71	69	73	74	74	73
M4	74	85	83	84	85	85	85	84	80	80	77	76	66

b): Change over time of the sO_2 (%-points) in relation to $T(b)_{base}$ after using a head pad

	$T(bp)_{base}$	$T(bp)_1$	$T(bp)_2$	$T(bp)_3$	$T(bp)_4$	$T(bp)_5$	$T(bp)_6$	$T(bp)_7$	$T(bp)_8$	$T(bp)_9$	$T(bp)_{10}$	$T(bp)_{11}$	$T(bp)_{12}$
M1	0	4	0	1	0	0	1	0	-1	2	-2	0	-4
M2	0	1	-2	3	4	2	2	3	4	7	7	8	8
M3	0	-1	-2	3	2	1	4	3	1	5	6	6	5
M4	0	11	9	10	11	11	11	10	6	6	3	2	-8

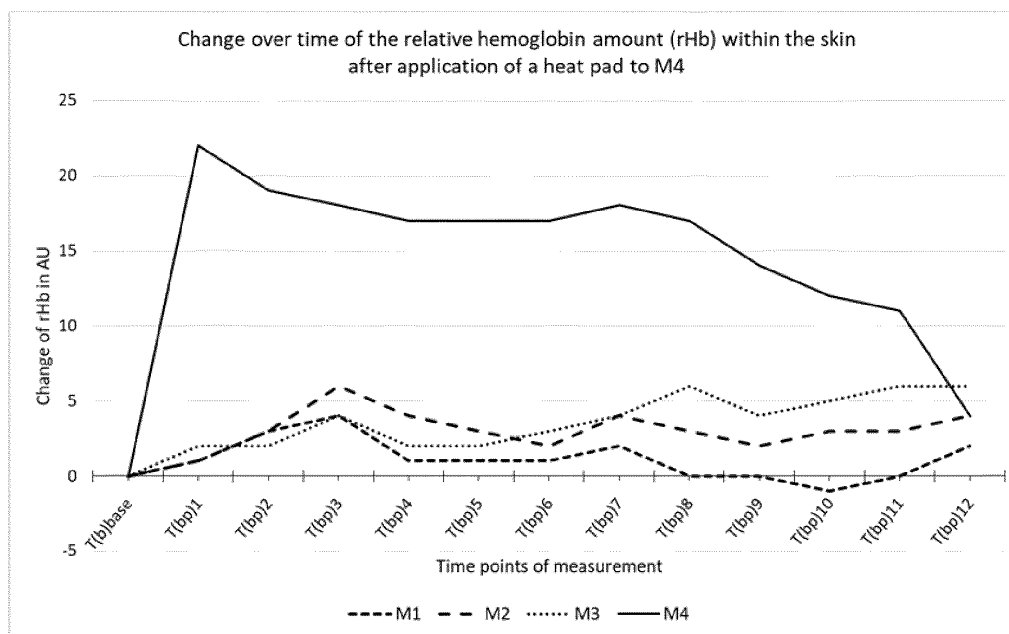
c): Elapsed time in seconds after removing the head pad from M4

sec	N/A	60	145	230	315	400	700	1000	1300	1600	1900	2200	3400
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Fig. 2A

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Relative hemoglobin amount (rHb) measured by O2C when using a heat pad



a): Values obtained for the rHb in AU in measurement areas M1 to M4 before ($T(b)_{base}$) and after applying the heat pad to M4 at time points $T(bp)_1$ to $T(bp)_{12}$

	$T(bp)_{base}$	$T(bp)_1$	$T(bp)_2$	$T(bp)_3$	$T(bp)_4$	$T(bp)_5$	$T(bp)_6$	$T(bp)_7$	$T(bp)_8$	$T(bp)_9$	$T(bp)_{10}$	$T(bp)_{11}$	$T(bp)_{12}$
M1	63	64	66	67	64	64	64	65	63	63	62	63	65
M2	72	73	75	78	76	75	74	76	75	74	75	75	76
M3	67	69	69	71	69	69	70	71	73	71	72	73	73
M4	82	104	101	100	99	99	99	100	99	96	94	93	86

b): Change over time of the rHb (AU) in relation to $T(b)_{base}$ after using a head pad

	0	1	3	4	1	1	2	0	0	-1	0	2	
M1	0	1	3	4	1	1	2	0	0	-1	0	2	
M2	0	1	3	6	4	3	2	4	3	2	3	4	
M3	0	2	2	4	2	2	3	4	6	4	5	6	
M4	0	22	19	18	17	17	17	18	17	14	12	11	4

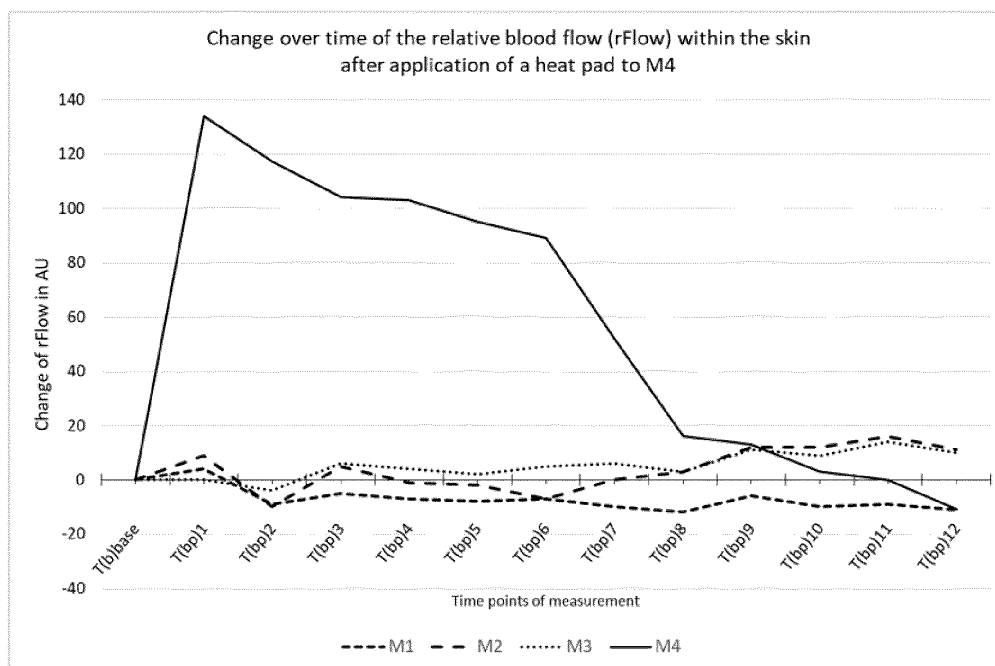
c): Elapsed time in seconds after removing the head pad from M4

sec	N/A	60	145	230	315	400	700	1000	1300	1600	1900	2200	3400
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Fig. 2B

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Relative blood flow (rFlow) measured by O2C when using a heat pad



a): Values obtained for the rFlow in AU in measurement areas M1 to M4 before $T(b)_{base}$ and after applying the heat pad to M4 at time points $T(bp)_1$ to $T(bp)_{12}$

	$T(bp)_{base}$	$T(bp)_1$	$T(bp)_2$	$T(bp)_3$	$T(bp)_4$	$T(bp)_5$	$T(bp)_6$	$T(bp)_7$	$T(bp)_8$	$T(bp)_9$	$T(bp)_{10}$	$T(bp)_{11}$	$T(bp)_{12}$
M1	24	28	15	19	17	16	17	14	12	18	14	15	13
M2	49	58	39	54	48	47	42	49	52	61	61	65	60
M3	33	33	29	39	37	35	38	39	36	44	42	47	43
M4	40	174	157	144	143	135	129	92	56	53	43	40	29

b): Change over time of the rFlow (AU) in relation to $T(b)_{base}$ after using a head pad

M1	0	4	-9	-5	-7	-8	-7	-10	-12	-6	-10	-9	-11
M2	0	9	-10	5	-1	-2	-7	0	3	12	12	16	11
M3	0	0	-4	6	4	2	5	6	3	11	9	14	10
M4	0	134	117	104	103	95	89	52	16	13	3	0	-11

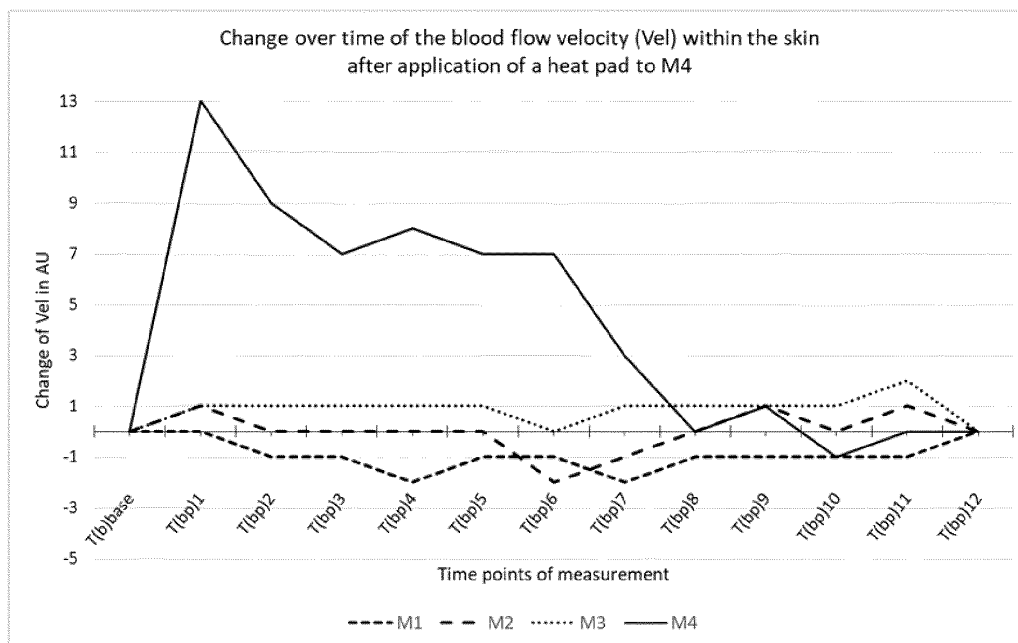
c): Elapsed time in seconds after removing the head pad from M4

sec	N/A	60	145	230	315	400	700	1000	1300	1600	1900	2200	3400
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Fig. 2C

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Blood flow velocity (Vel) measured by O2C when using a heat pad



a): Values obtained for the Vel in AU in measurement areas M1 to M4 before ($T(b)_{base}$) and after applying the heat pad to M4 at time points $T(bp)_1$ to $T(bp)_{12}$

	$T(bp)_{base}$	$T(bp)_1$	$T(bp)_2$	$T(bp)_3$	$T(bp)_4$	$T(bp)_5$	$T(bp)_6$	$T(bp)_7$	$T(bp)_8$	$T(bp)_9$	$T(bp)_{10}$	$T(bp)_{11}$	$T(bp)_{12}$
M1	12	12	11	11	10	11	11	10	11	11	11	11	12
M2	15	16	15	15	15	15	13	14	15	16	15	16	15
M3	13	14	14	14	14	14	13	14	14	14	14	15	13
M4	13	26	22	20	21	20	20	16	13	14	12	13	13

b): Change over time of the Vel (AU) in relation to $T(b)_{base}$ after using a head pad

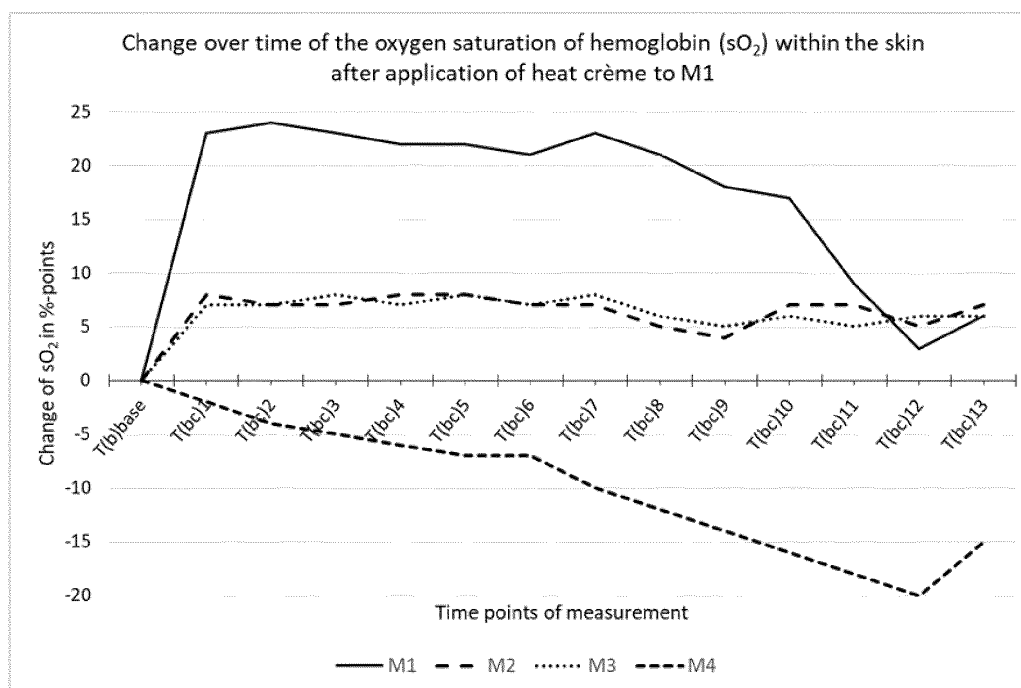
	0	0	-1	-1	-2	-1	-1	-2	-1	-1	-1	-1	0
M1	0	0	-1	-1	-2	-1	-1	-2	-1	-1	-1	-1	0
M2	0	1	0	0	0	0	-2	-1	0	1	0	1	0
M3	0	1	1	1	1	1	0	1	1	1	1	2	0
M4	0	13	9	7	8	7	7	3	0	1	-1	0	0

c): Elapsed time in seconds after removing the head pad from M4

sec	N/A	60	145	230	315	400	700	1000	1300	1600	1900	2200	3400
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Fig. 2D

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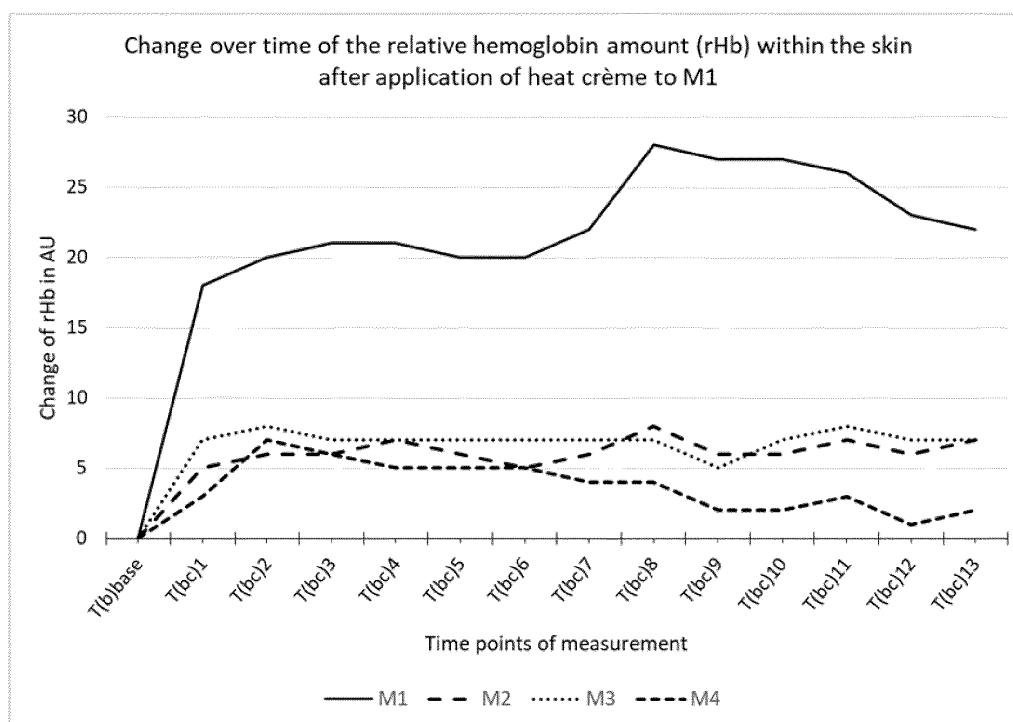
Oxygen saturation of hemoglobin (sO_2) measured by O2C when using heat crème

a): Values obtained for the sO_2 in % in measurement areas M1 to M4 before ($T(b)_{base}$) and after applying the heat crème to M1 at time points $T(bc)_1$ to $T(bc)_{13}$														
	$T(b)_{base}$	$T(bc)_1$	$T(bc)_2$	$T(bc)_3$	$T(bc)_4$	$T(bc)_5$	$T(bc)_6$	$T(bc)_7$	$T(bc)_8$	$T(bc)_9$	$T(bc)_{10}$	$T(bc)_{11}$	$T(bc)_{12}$	$T(bc)_{13}$
M1	64	87	88	87	86	86	85	87	85	82	81	73	67	70
M2	62	70	69	69	70	70	69	69	67	66	69	69	67	69
M3	68	75	75	76	75	76	75	76	74	73	74	73	74	74
M4	74	72	70	69	68	67	67	64	62	60	58	56	54	59
b): Change over time of the sO_2 (%-points) in relation to $T(b)_{base}$ after using a heat crème														
M1	0	23	24	23	22	22	21	23	21	18	17	9	3	6
M2	0	8	7	7	8	8	7	7	5	4	7	7	5	7
M3	0	7	7	8	7	8	7	8	6	5	6	5	6	6
M4	0	-2	-4	-5	-6	-7	-7	-10	-12	-14	-16	-18	-20	-15
c): Elapsed time in seconds after finishing the application of the heat crème to M1														
sec	N/A	120	205	290	435	580	880	1180	1780	2380	2980	3580	4180	4780

Fig. 3A

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Relative hemoglobin (rHb) measured by O2C when using heat crème



a): Values obtained for the rHb in AU in measurement areas M1 to M4 before $T(b)_{base}$ and after applying the heat crème to M1 at time points $T(bc)_1$ to $T(bc)_{13}$

	$T(bc)_{base}$	$T(bc)_1$	$T(bc)_2$	$T(bc)_3$	$T(bc)_4$	$T(bc)_5$	$T(bc)_6$	$T(bc)_7$	$T(bc)_8$	$T(bc)_9$	$T(bc)_{10}$	$T(bc)_{11}$	$T(bc)_{12}$	$T(bc)_{13}$
M1	63	81	83	84	84	83	83	85	91	90	90	89	86	85
M2	72	77	78	78	79	78	77	78	80	78	78	79	78	79
M3	67	74	75	74	74	74	74	74	74	72	74	75	74	74
M4	82	85	89	88	87	87	87	86	86	84	84	85	83	84

b): Change over time of the rHb (AU) in relation to $T(b)_{base}$ after using a heat crème

M1	0	18	20	21	21	20	20	22	28	27	27	26	23	22
M2	0	5	6	6	7	6	5	6	8	6	6	7	6	7
M3	0	7	8	7	7	7	7	7	7	5	7	8	7	7
M4	0	3	7	6	5	5	5	4	4	2	2	3	1	2

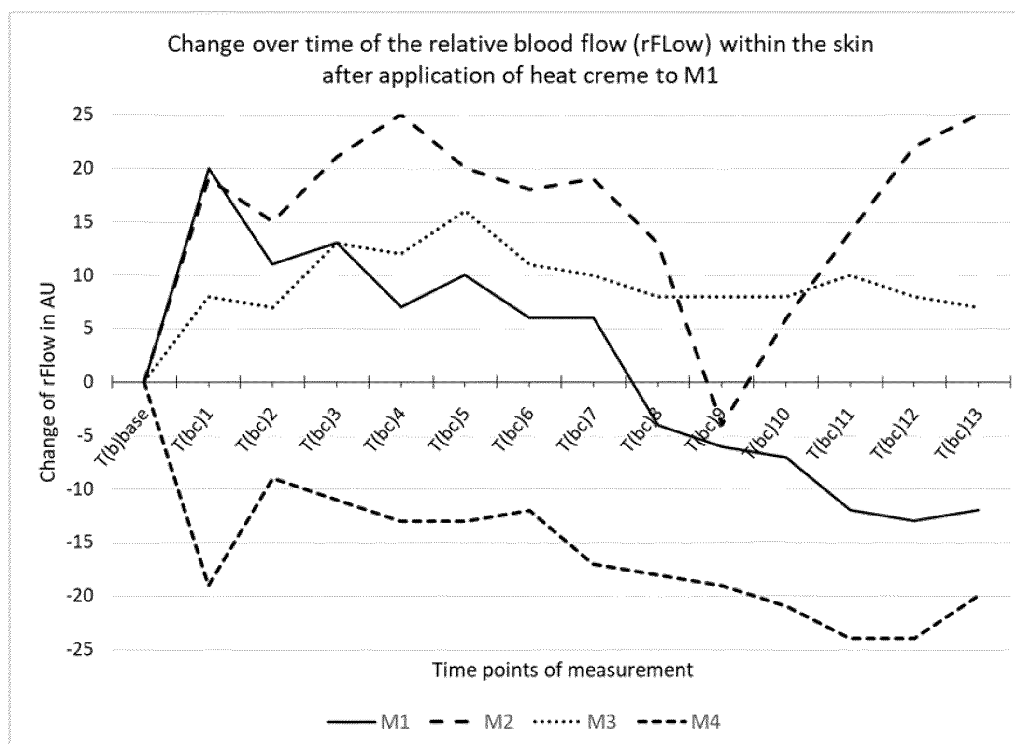
c): Elapsed time in seconds after finishing the application of the heat crème to M1

sec	N/A	120	205	290	435	580	880	1180	1780	2380	2980	3580	4180	4780
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Fig. 3B

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Relative blood flow (rFlow) measured by O2C when using heat crème



a): Values obtained for the rFlow in AU in measurement areas M1 to M4 before ($T(b)_{base}$) and after applying the heat crème to M1 at time points $T(bc)_1$ to $T(bc)_{13}$														
	$T(bc)_{base}$	$T(bc)_1$	$T(bc)_2$	$T(bc)_3$	$T(bc)_4$	$T(bc)_5$	$T(bc)_6$	$T(bc)_7$	$T(bc)_8$	$T(bc)_9$	$T(bc)_{10}$	$T(bc)_{11}$	$T(bc)_{12}$	$T(bc)_{13}$
M1	24	44	35	37	31	34	30	30	20	18	17	12	11	12
M2	49	68	64	70	74	69	67	68	62	45	55	63	71	74
M3	33	41	40	46	45	49	44	43	41	41	41	43	41	40
M4	40	21	31	29	27	27	28	23	22	21	19	16	16	20

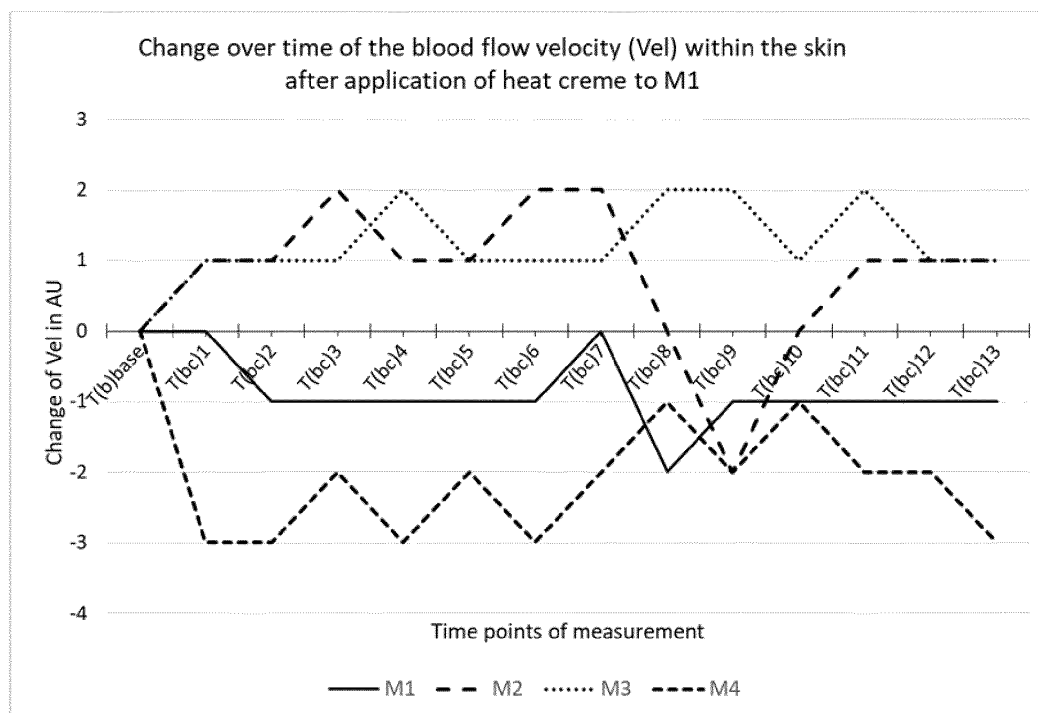
b): Change over time of the rFlow (AU) in relation to $T(b)_{base}$ after using a heat crème														
	$T(bc)_{base}$	$T(bc)_1$	$T(bc)_2$	$T(bc)_3$	$T(bc)_4$	$T(bc)_5$	$T(bc)_6$	$T(bc)_7$	$T(bc)_8$	$T(bc)_9$	$T(bc)_{10}$	$T(bc)_{11}$	$T(bc)_{12}$	$T(bc)_{13}$
M1	0	20	11	13	7	10	6	6	-4	-6	-7	-12	-13	-12
M2	0	19	15	21	25	20	18	19	13	-4	6	14	22	25
M3	0	8	7	13	12	16	11	10	8	8	8	10	8	7
M4	0	-19	-9	-11	-13	-13	-12	-17	-18	-19	-21	-24	-24	-20

c): Elapsed time in seconds after finishing the application of the heat crème to M1														
sec	N/A	120	205	290	435	580	880	1180	1780	2380	2980	3580	4180	4780

Fig. 3C

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Blood flow velocity (Vel) measured by O2C when using heat crème



a): Values obtained for the Vel in AU in measurement areas M1 to M4 before $T(b)_{base}$ and after applying the heat crème to M1 at time points $T(bc)_1$ to $T(bc)_{13}$

	$T(b)_{base}$	$T(bc)_1$	$T(bc)_2$	$T(bc)_3$	$T(bc)_4$	$T(bc)_5$	$T(bc)_6$	$T(bc)_7$	$T(bc)_8$	$T(bc)_9$	$T(bc)_{10}$	$T(bc)_{11}$	$T(bc)_{12}$	$T(bc)_{13}$
M1	12	12	11	11	11	11	11	12	10	11	11	11	11	11
M2	15	16	16	17	16	16	17	17	15	13	15	16	16	16
M3	13	14	14	14	15	14	14	14	15	15	14	15	14	14
M4	13	10	10	11	10	11	10	11	12	11	12	11	11	10

b): Change over time of the Vel (AU) in relation to $T(b)_{base}$ after using a heat crème

M1	0	0	-1	-1	-1	-1	-1	0	-2	-1	-1	-1	-1	-1
M2	0	1	1	2	1	1	2	2	0	-2	0	1	1	1
M3	0	1	1	1	2	1	1	1	2	2	1	2	1	1
M4	0	-3	-3	-2	-3	-2	-3	-2	-1	-2	-1	-2	-2	-3

c): Elapsed time in seconds after finishing the application of the heat crème to M1

sec	N/A	120	205	290	435	580	880	1180	1780	2380	2980	3580	4180	4780
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Fig. 3D

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Setup and spatial arrangement for the thermal measurements of the temperature on the skin

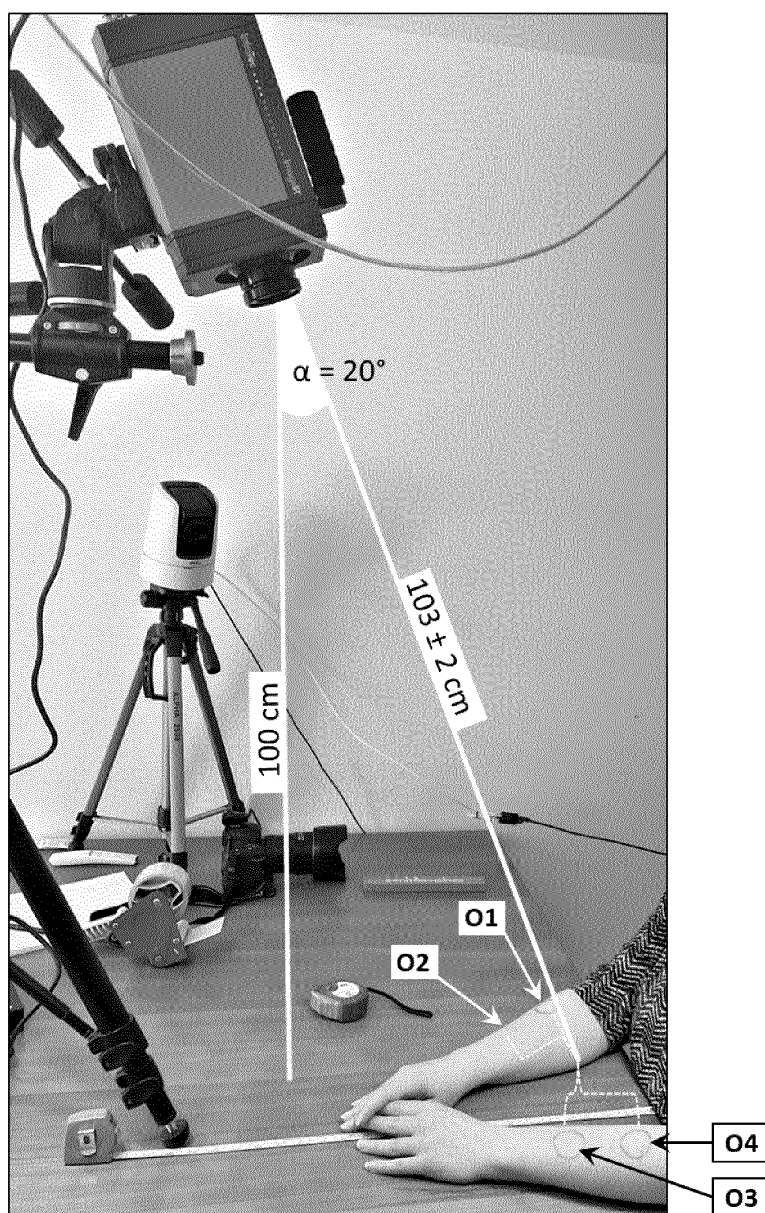
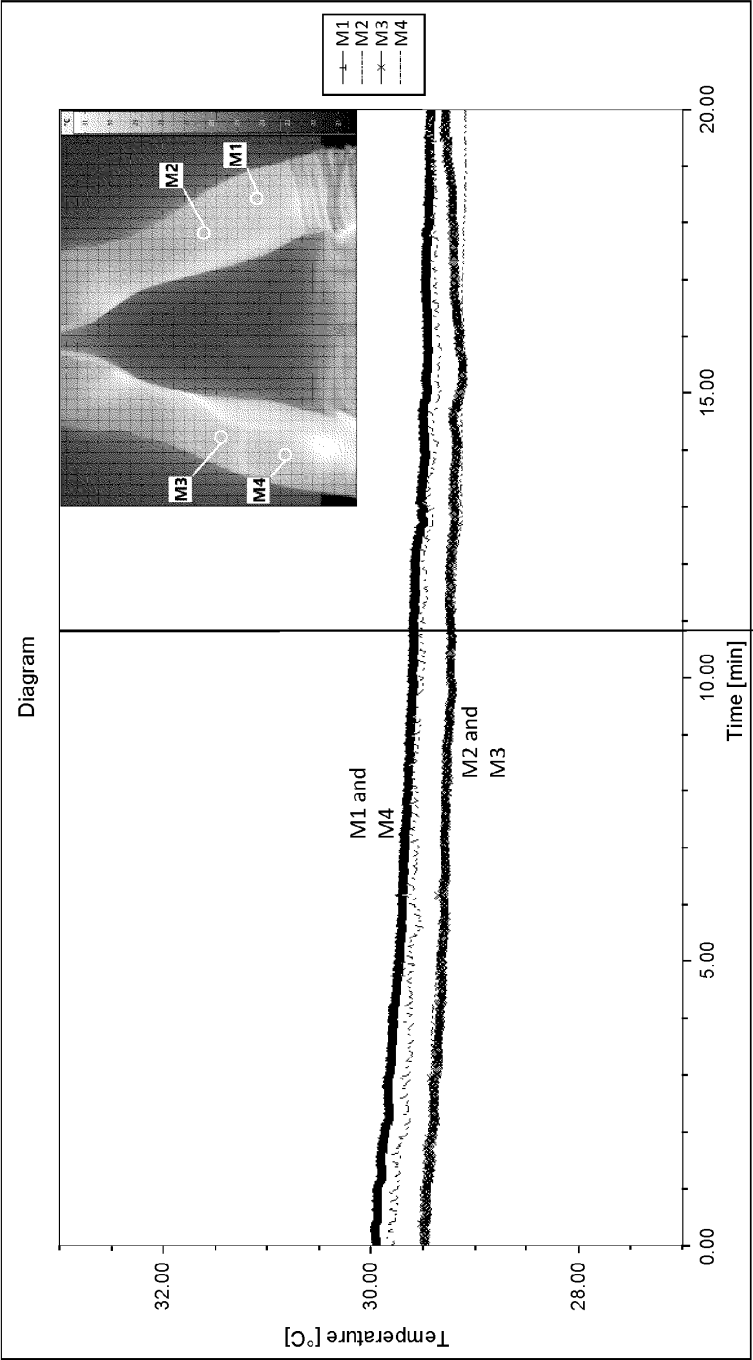


Fig. 4

Baseline temperatures on the skin measured over time (diagram) and thermal view (top right) taken at $T(t)_{base}$.
The baseline temperatures indicated in table 4 for M1 to M4 are also taken at $T(t)_{base}$ at 10.8 min.



Temperature on the skin measured over time when using a topical heat administration at M4 (heat pad) and without at M1, M2 and M3. Furthermore, measurement points in time $T(tp)_1$, $T(tp)_2$ and $T(tp)_3$ are indicated

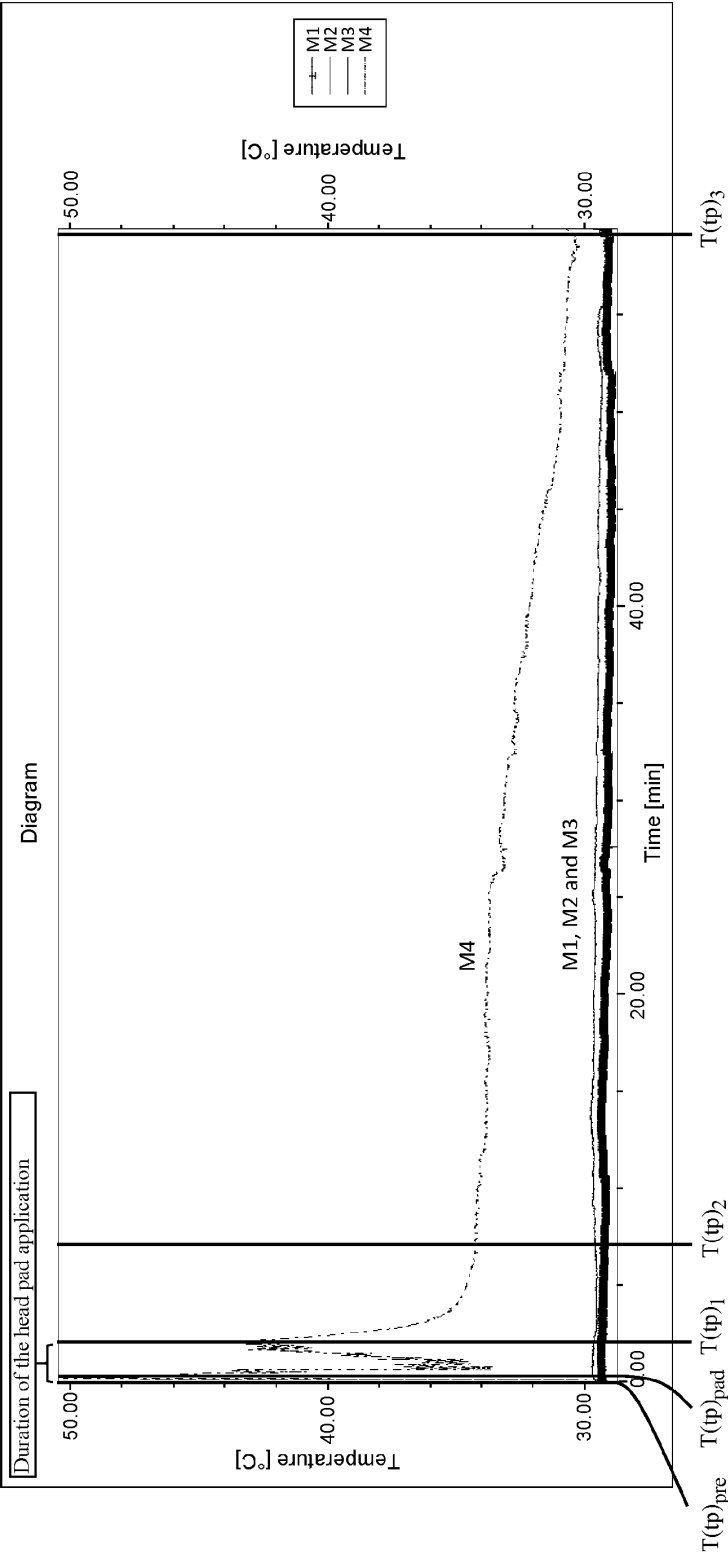
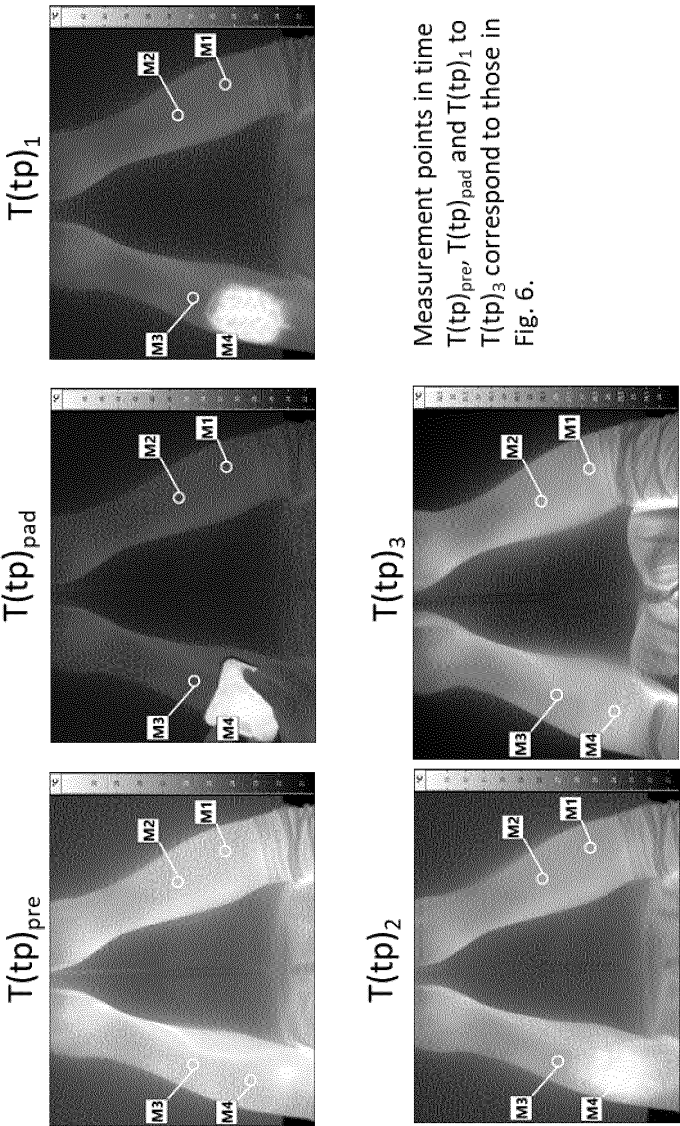


Fig. 6

Thermal views of the subject's forearms before ($T(tp)_{pre}$), while ($T(tp)_{pad}$) and after finishing the topical administration of heat ($T(tp)_1$, $T(tp)_2$, $T(tp)_3$) when using a heat pad (M4), and without any treatment (M1, M2, M3)



Measurement points in time $T(tp)_{pre}$, $T(tp)_{pad}$ and $T(tp)_1$ to $T(tp)_3$ correspond to those in Fig. 6.

Fig. 7

Temperature on the skin measured over time when topically administering a heat cream (M1), a comparative compound (M3) and without treatment (M2 and M4). Measurement points in time $T(tc)_{pre}$, $T(tc)_{DAC}$ and $T(tc)_1$ to $T(tc)_9$ are indicated.

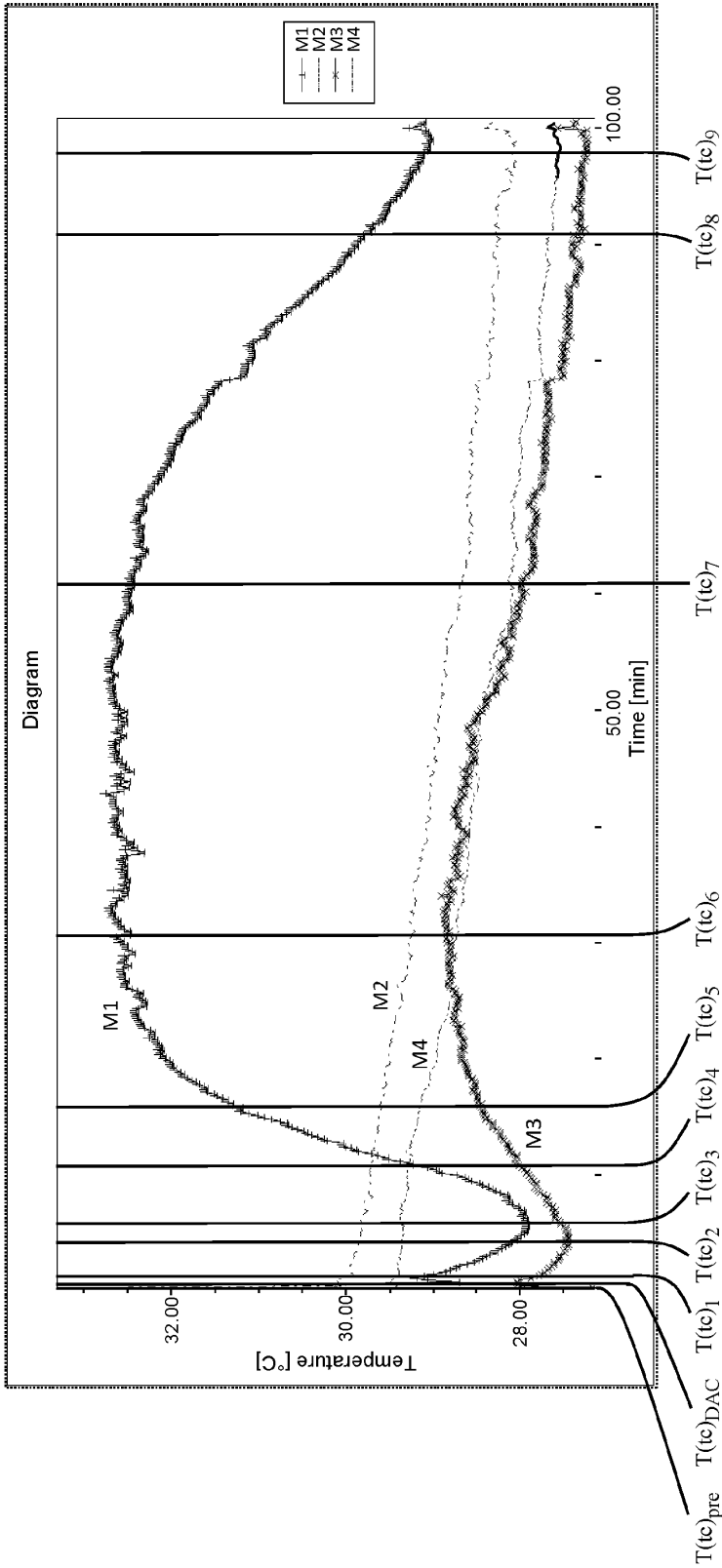
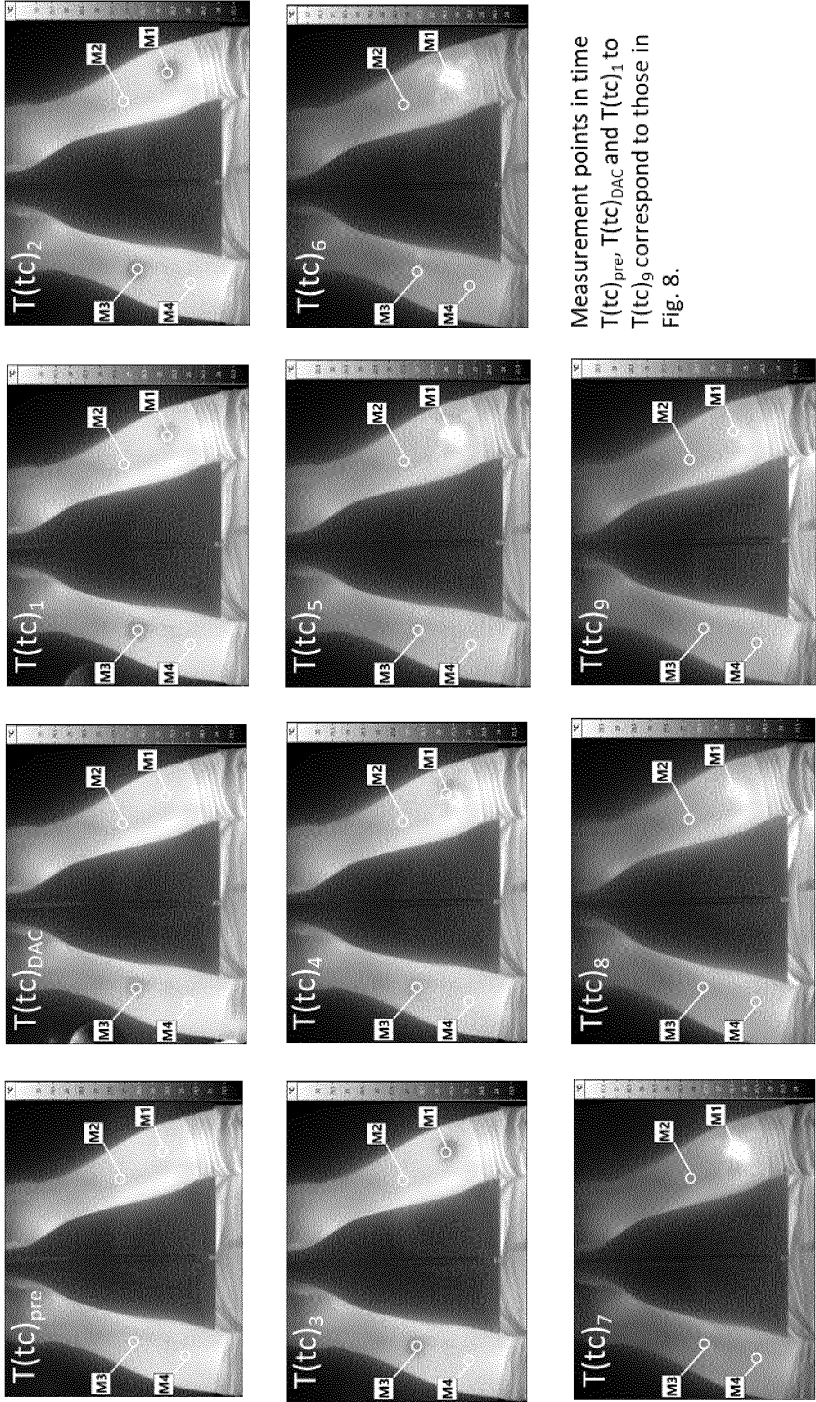


Fig. 8

Thermal views of the subject's forearms before topical application of any composition ($T(tc)_{pre}$), after finishing the topical application of a comparative composition to M3 ($T(tc)_{DAC}$) and after finishing the topical application of a heat crème to M1 ($T(tc)_1$ to $T(tc)_9$). M2 and M4 were left untreated.



Measurement points in time $T(tc)_{pre}$, $T(tc)_{DAC}$ and $T(tc)_1$ to $T(tc)_9$ correspond to those in Fig. 8.

Fig. 9

Rheumatoid Arthritis [icd10 M05.80]

Initial amount of CRP and the development of the CRP amounts over a treatment course of 53 weeks including controls, placebo, erroneous treatment and correct treatment in a patient suffering from rheumatoid arthritis

Patient 1

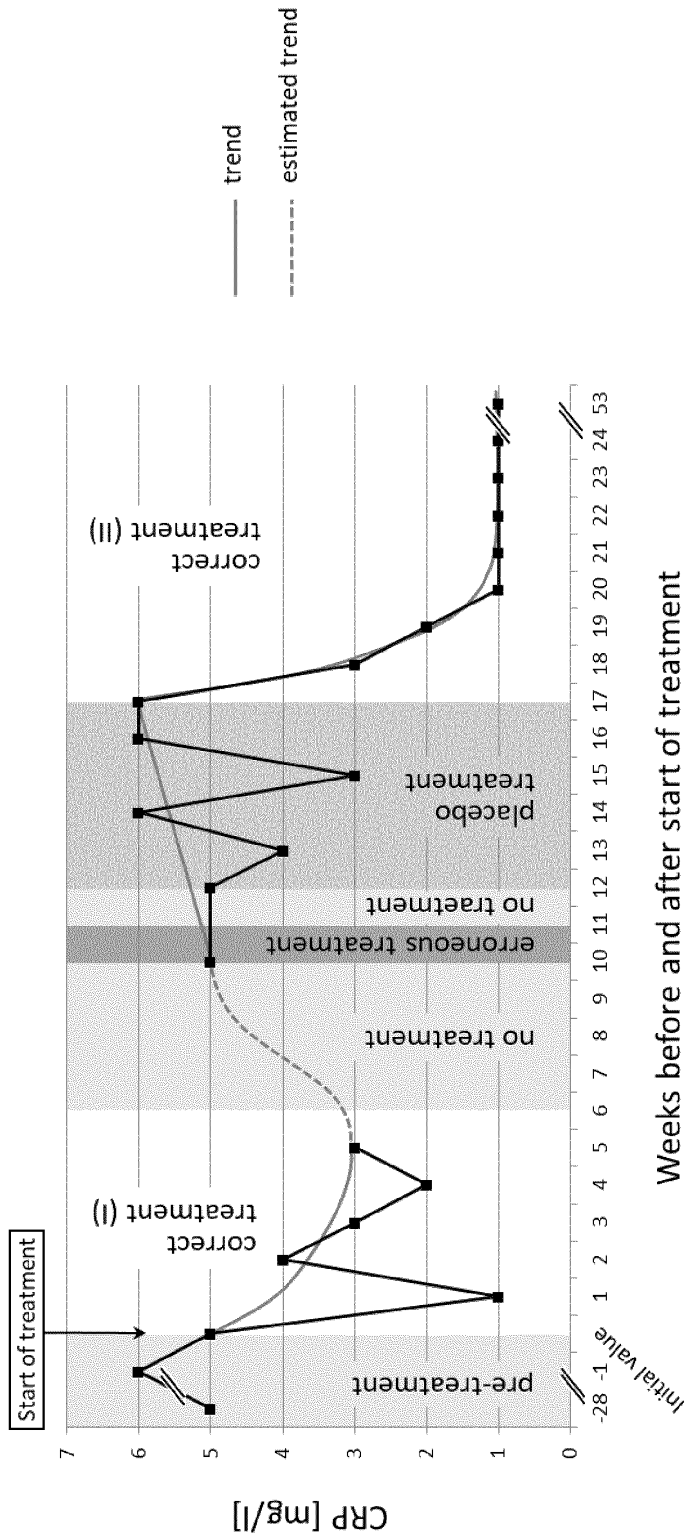


Fig. 10

Rheumatoid Arthritis [ICD10 M05.80] and Polyarthritits [ICD-10 M25.5]
Decrease in relative amounts of CRP of the patients suffering from rheumatoid arthritis
and polyarthritits over up to 10 weeks of treatment
Patients 1, 2, 4 to 6 (rheumatoid arthritis) and patient 9 (polyarthritits) #

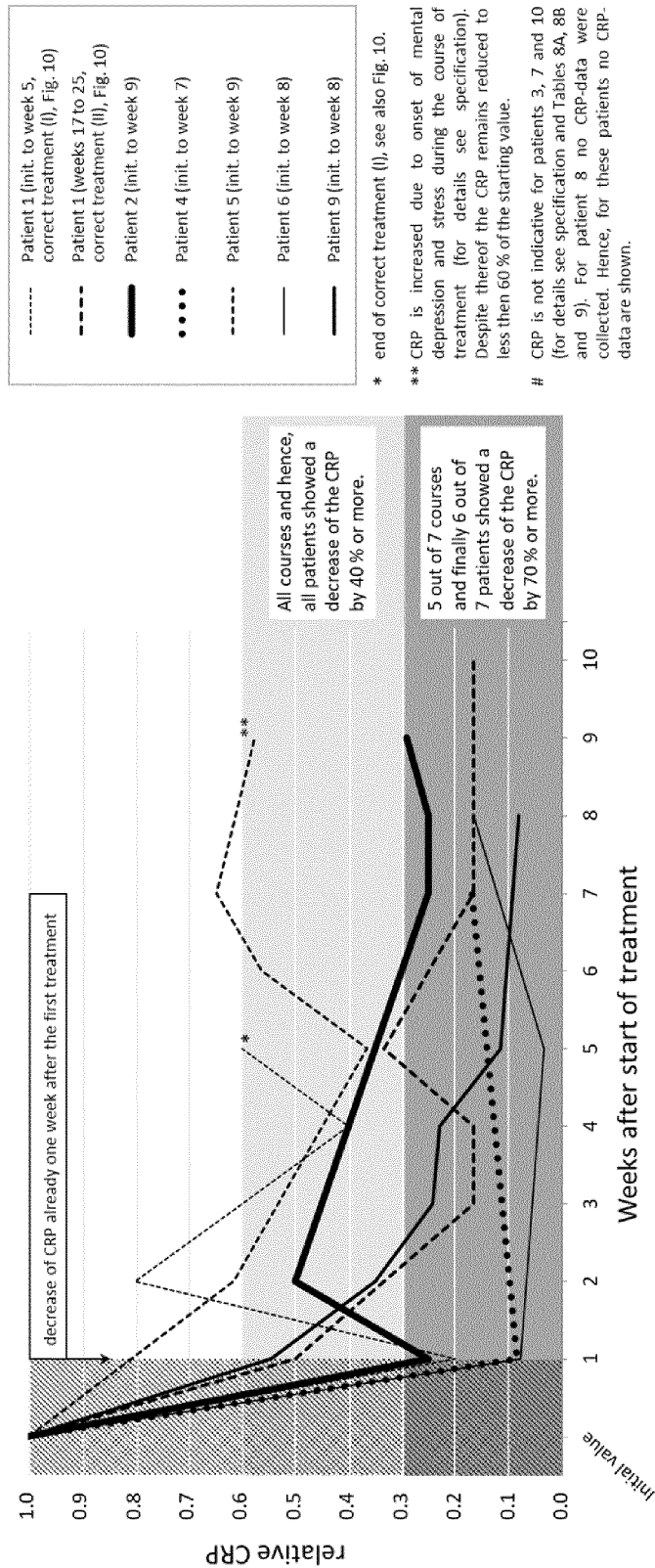


Fig. 11

Rheumatoid Arthritis [ICD10 M05.80]

Development of the amount of CRP of the same three patients as in Fig. 11 suffering from rheumatoid arthritis after treatment for up to 5 weeks

Patients 1, 2 and 4

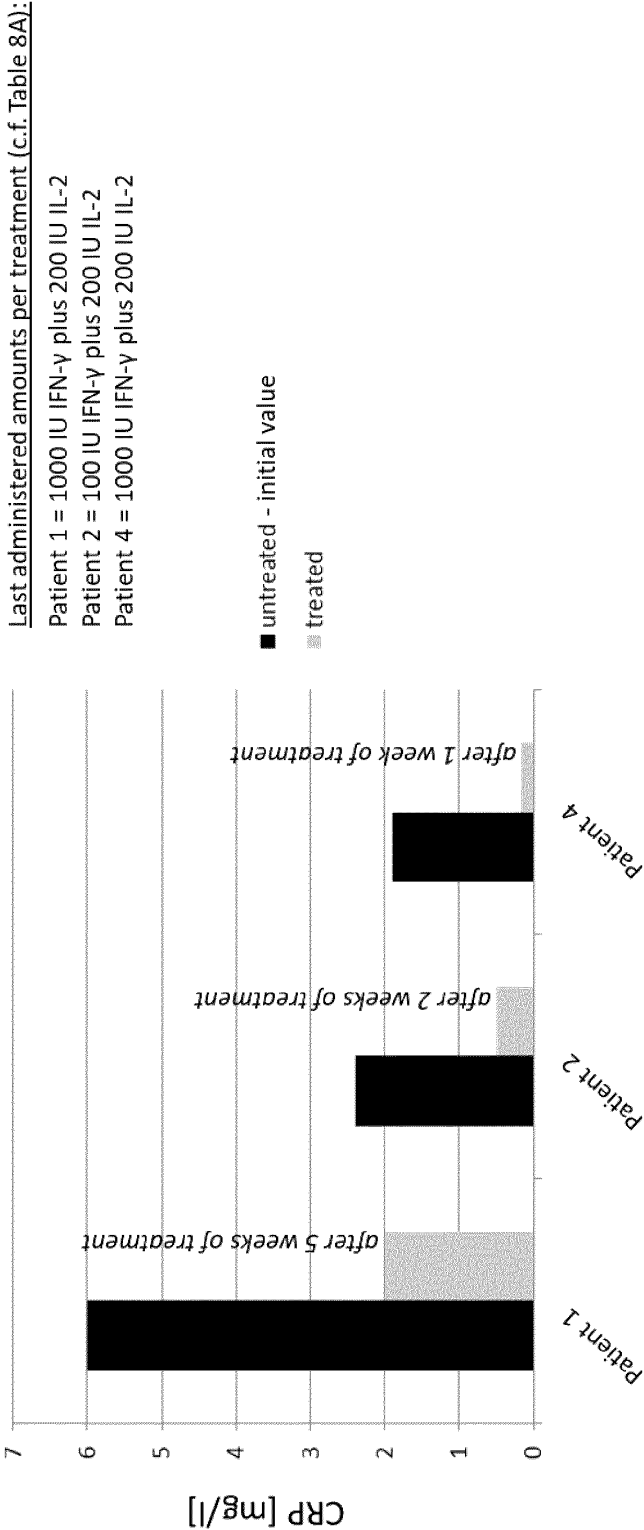


Fig. 12

Rheumatoid Arthritis [icd10 M05.80]

Development of the amount of CRP after a treatment for up to 53 weeks. All rheumatoid arthritis patients for which CRP values were collected are shown. Patients 1, 2 and 4 of Figs. 11 and 12 are also included, but the indicated CRP is after a longer period of treatment.

Patients 1 to 7

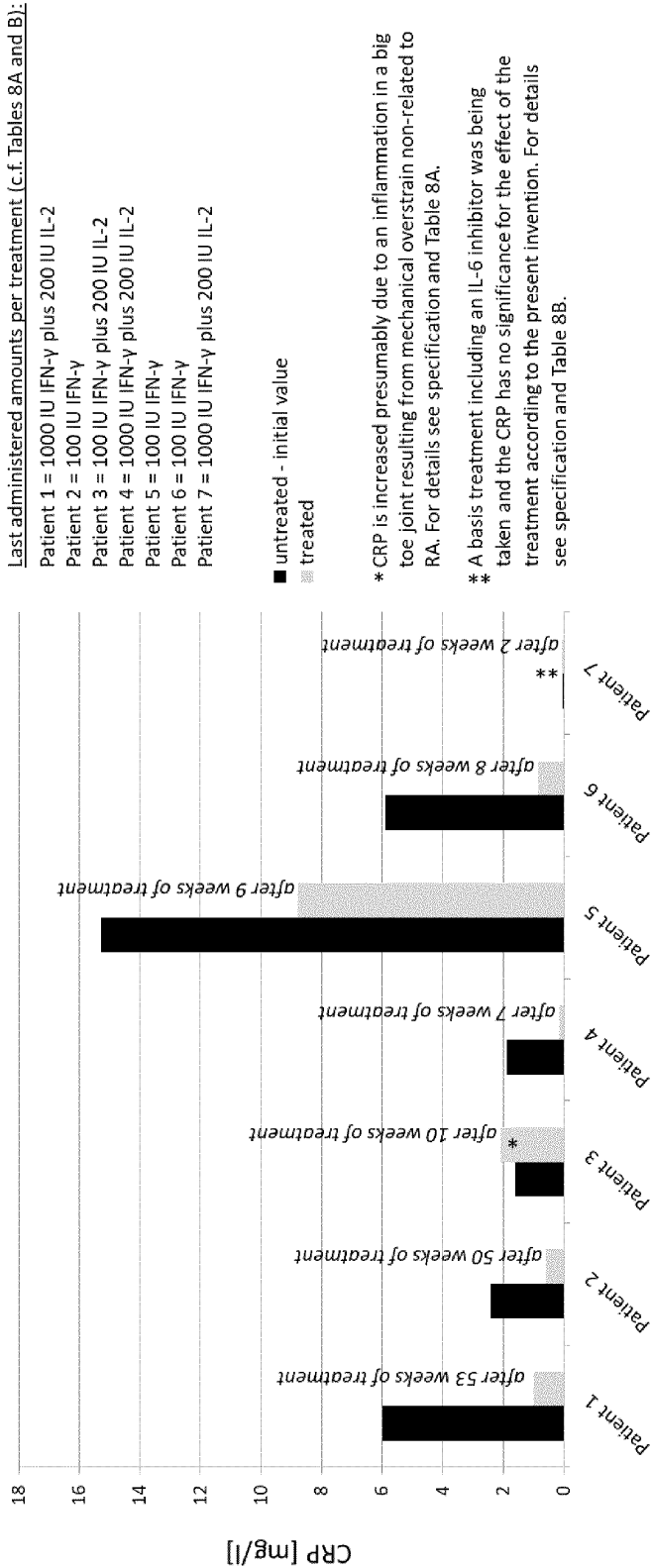


Fig. 13

Rheumatoid Arthritis [ICD10 M05.80]

Photographs of the right and left hand of a patient suffering from rheumatoid arthritis at initial condition and at indicated weeks after start of treatment

Patient 2

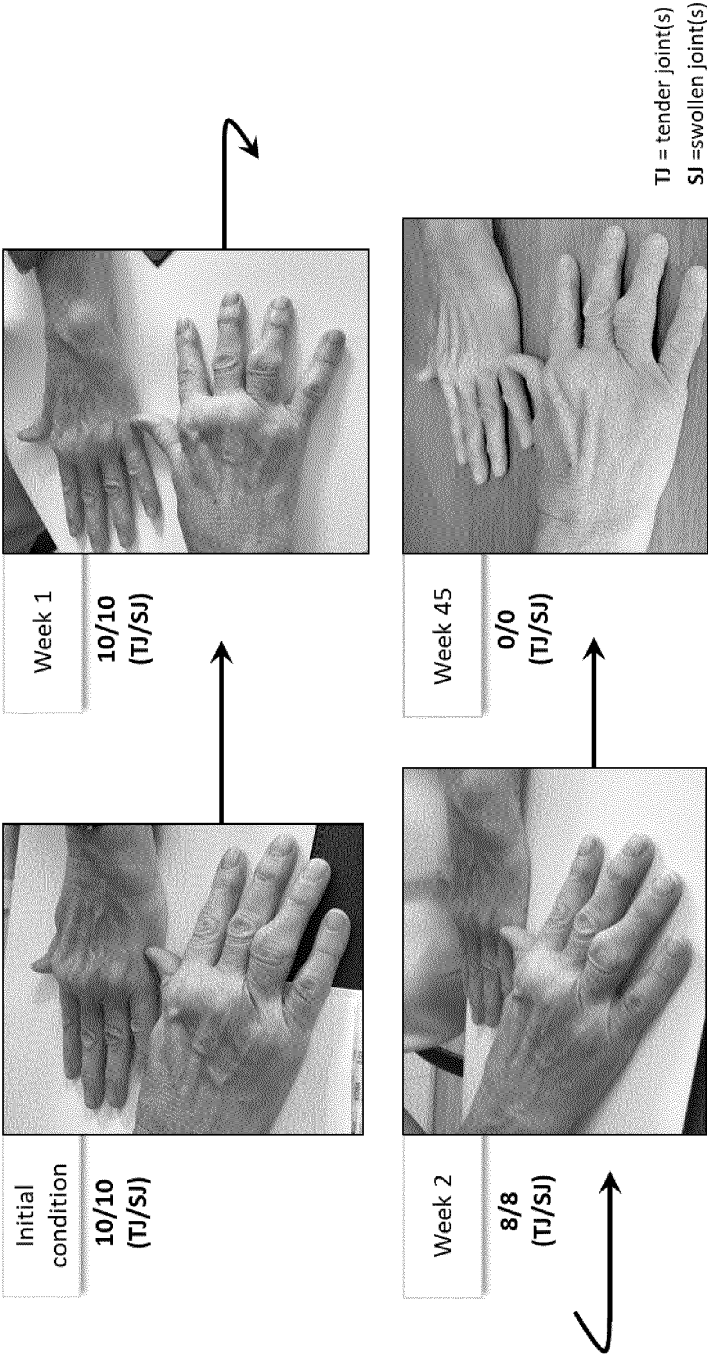


Fig. 14

Rheumatoid Arthritis [ICD10 M05.80] and synovitis

Development of the HAQ score of a patient suffering from rheumatoid arthritis and synovitis over a treatment course of 12 weeks

Patient 7

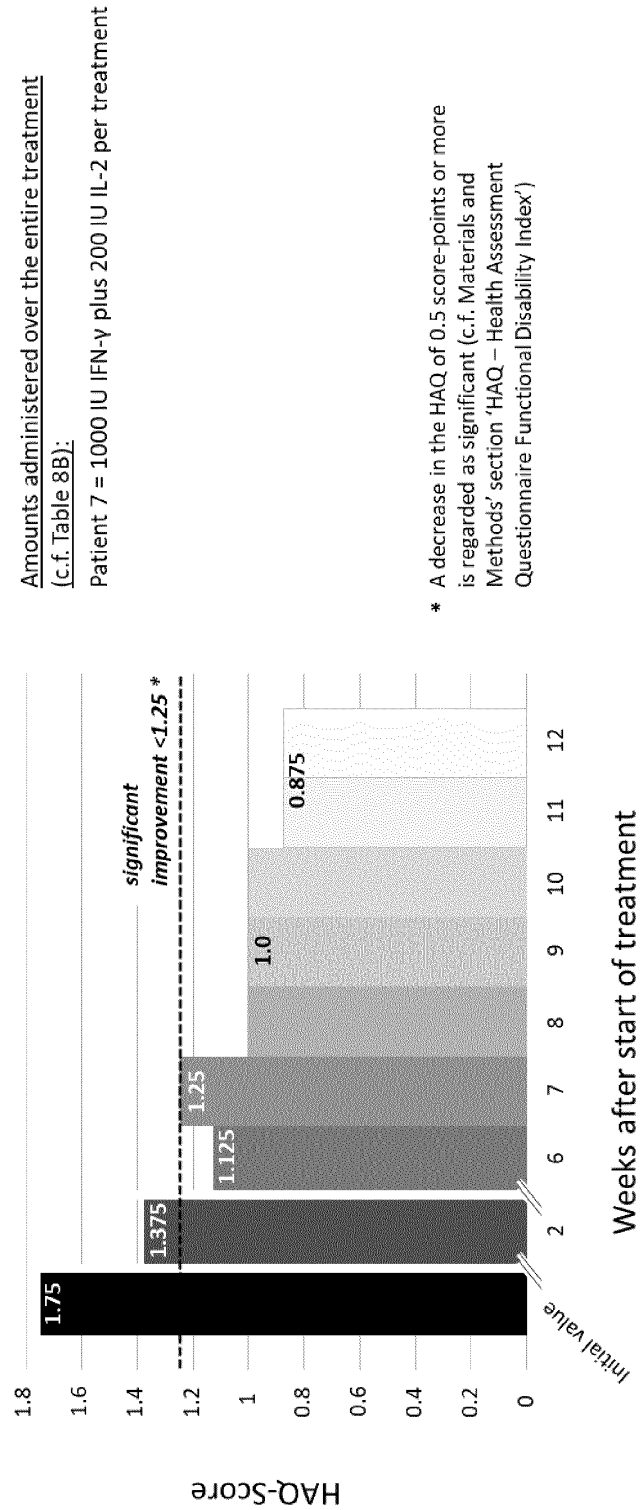


Fig. 15

Polyarthritits [ICD10 M25.5]

Development of the amount of CRP and of the HAQ-score of a patient suffering from polyarthritits over a treatment course of 19 weeks

Patient 9

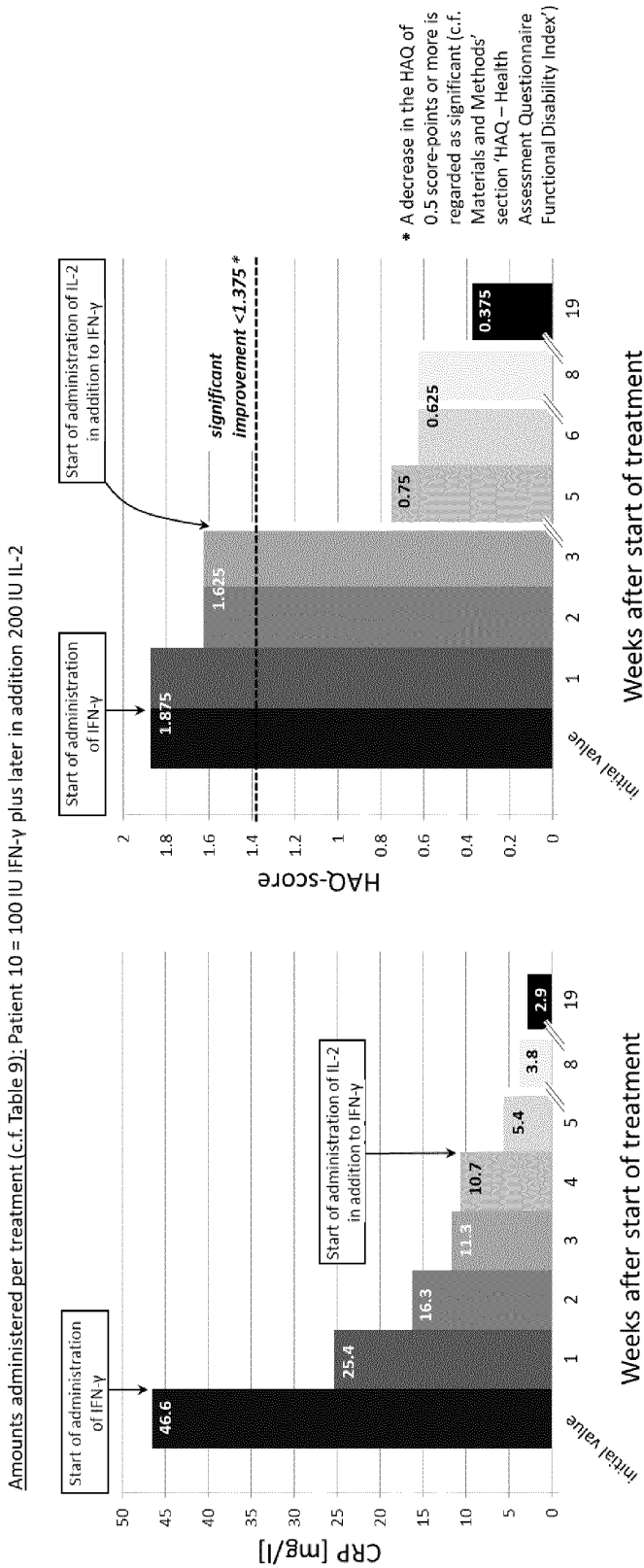


Fig. 16

Ankylosing spondylitis [Bechterew's disease]
Development of the BASDAI-score of two patients suffering from Bechterew's disease over a treatment course of 10 weeks
Patients 11 and 12

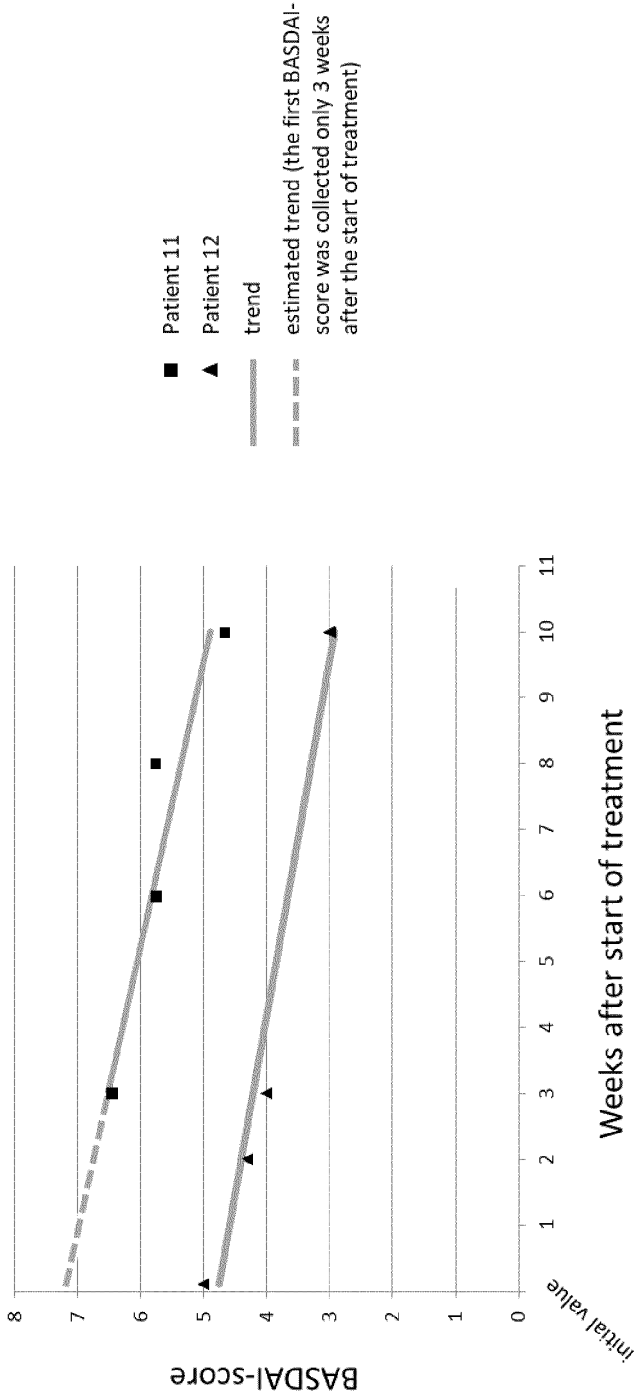


Fig. 17

Multiple Sclerosis [ICD10 G35.10]
Development of the SHILD-score of a patient suffering from multiple sclerosis
over a treatment period of 4 years

Patient 15

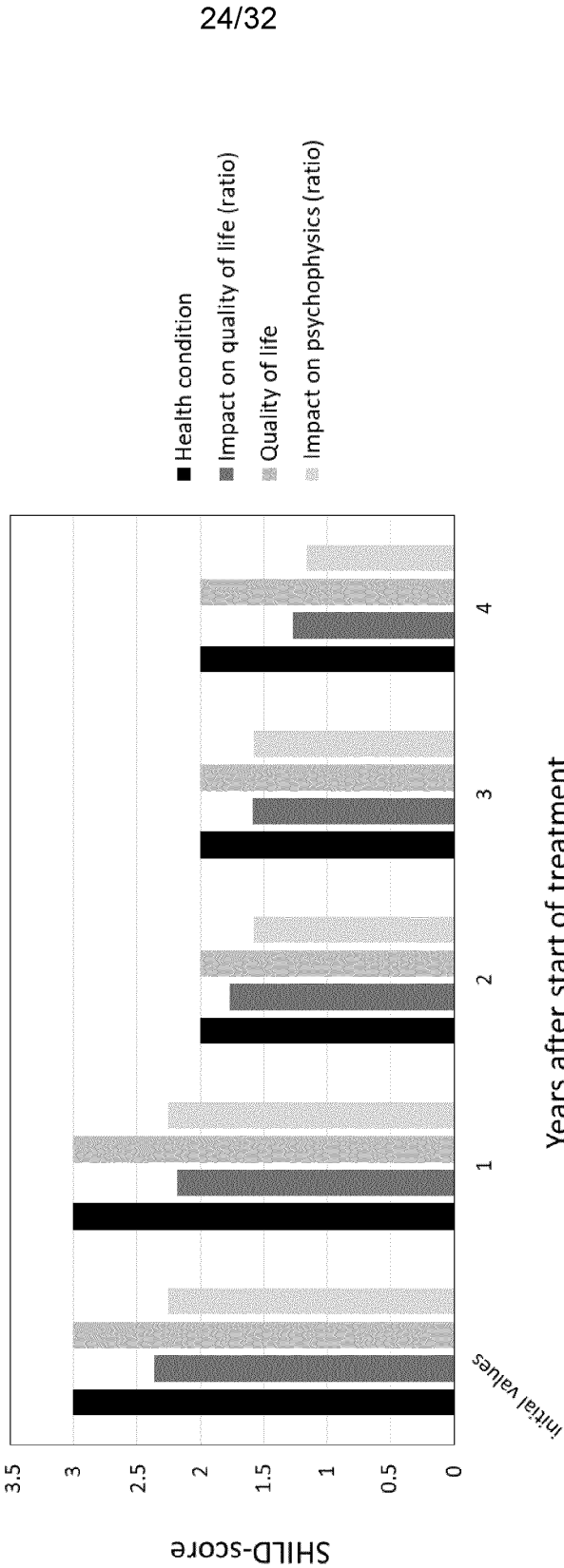


Fig. 18

Basedow's Disease [ICD10 E05.0]

Photographs of the eyes of a patient suffering from Basedow's disease before onset of disease, 2 month after onset of disease and after treatment for 10 months and 13 months, respectively.

Patient 1

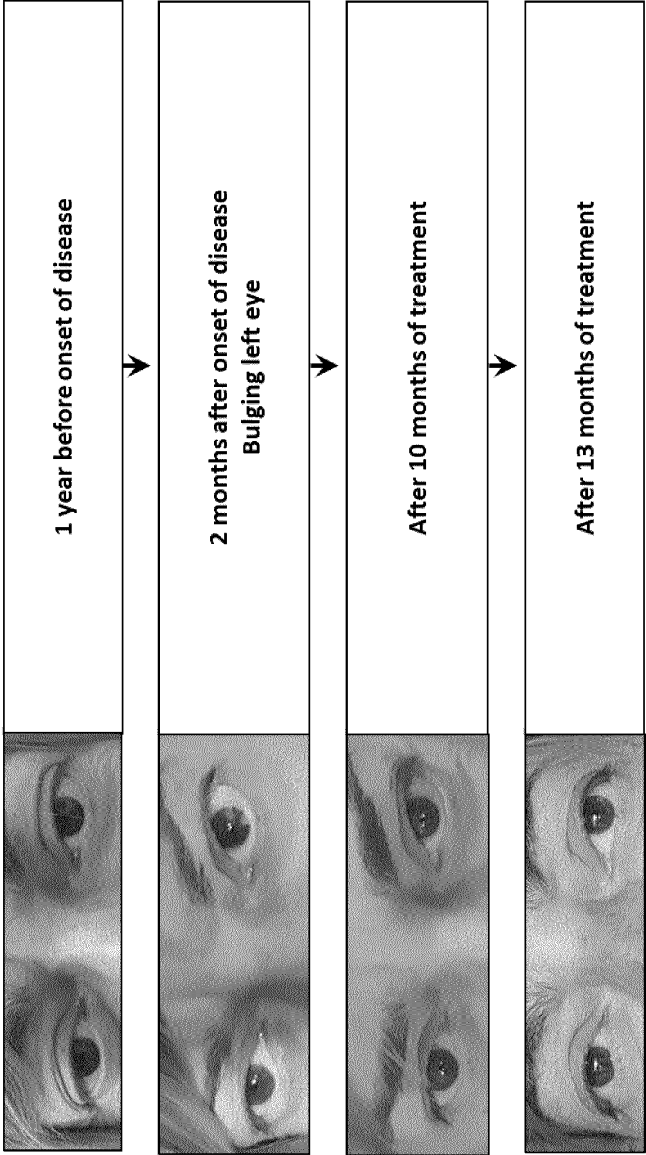


Fig. 19

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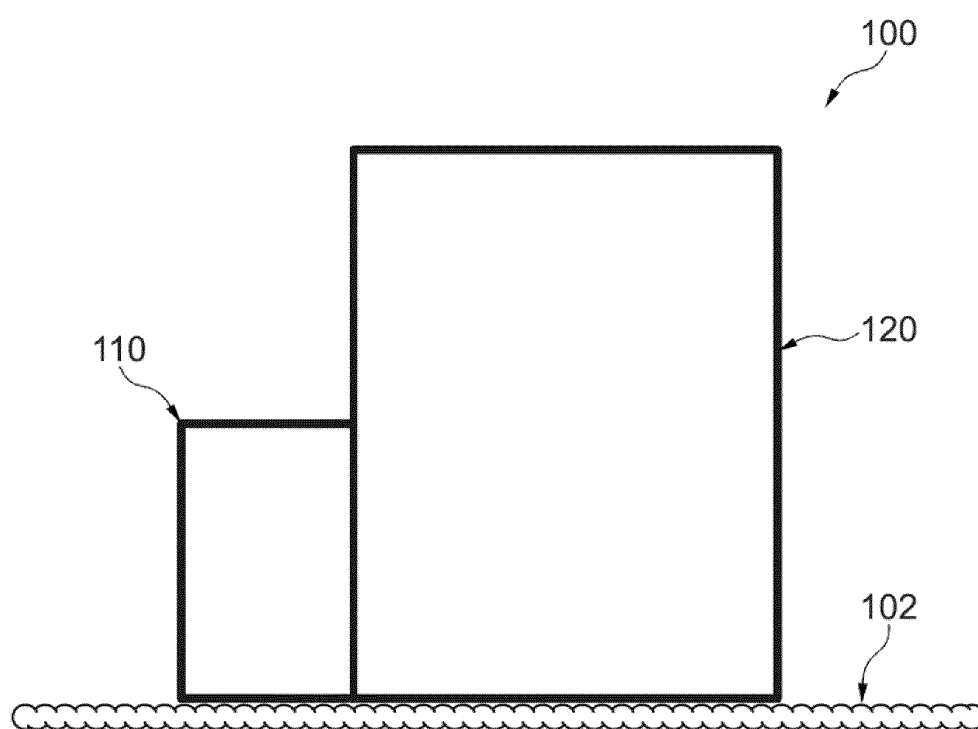


Fig. 20

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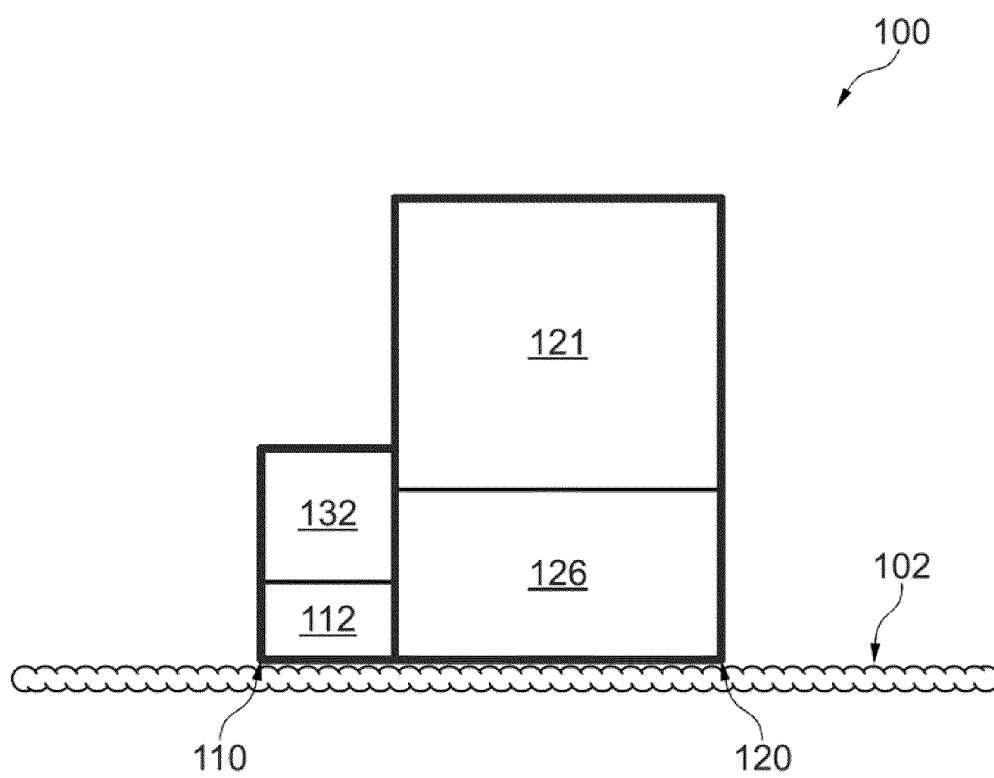


Fig. 21

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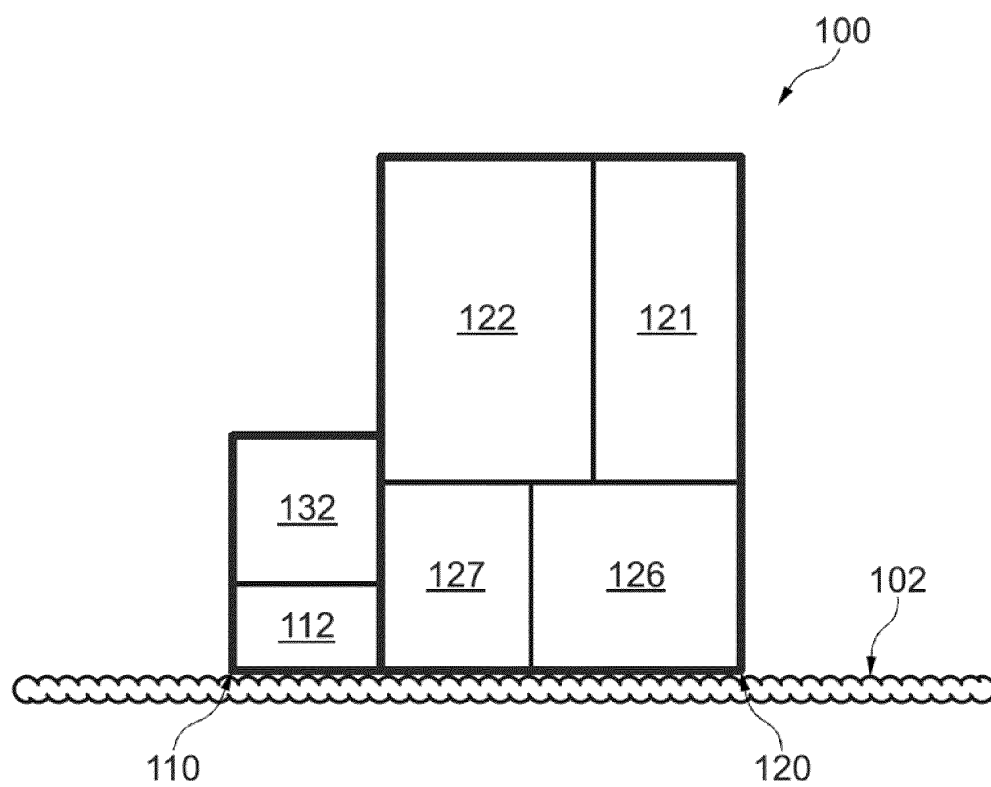


Fig. 22

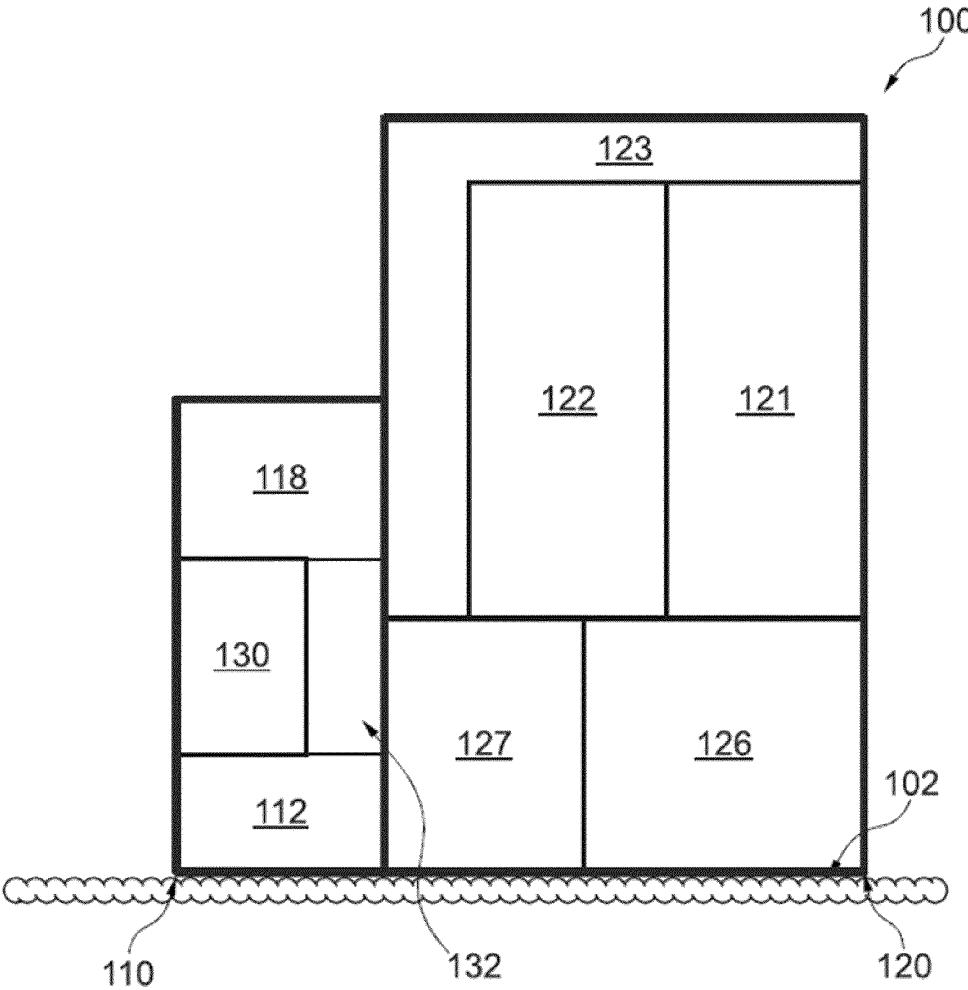


Fig. 23

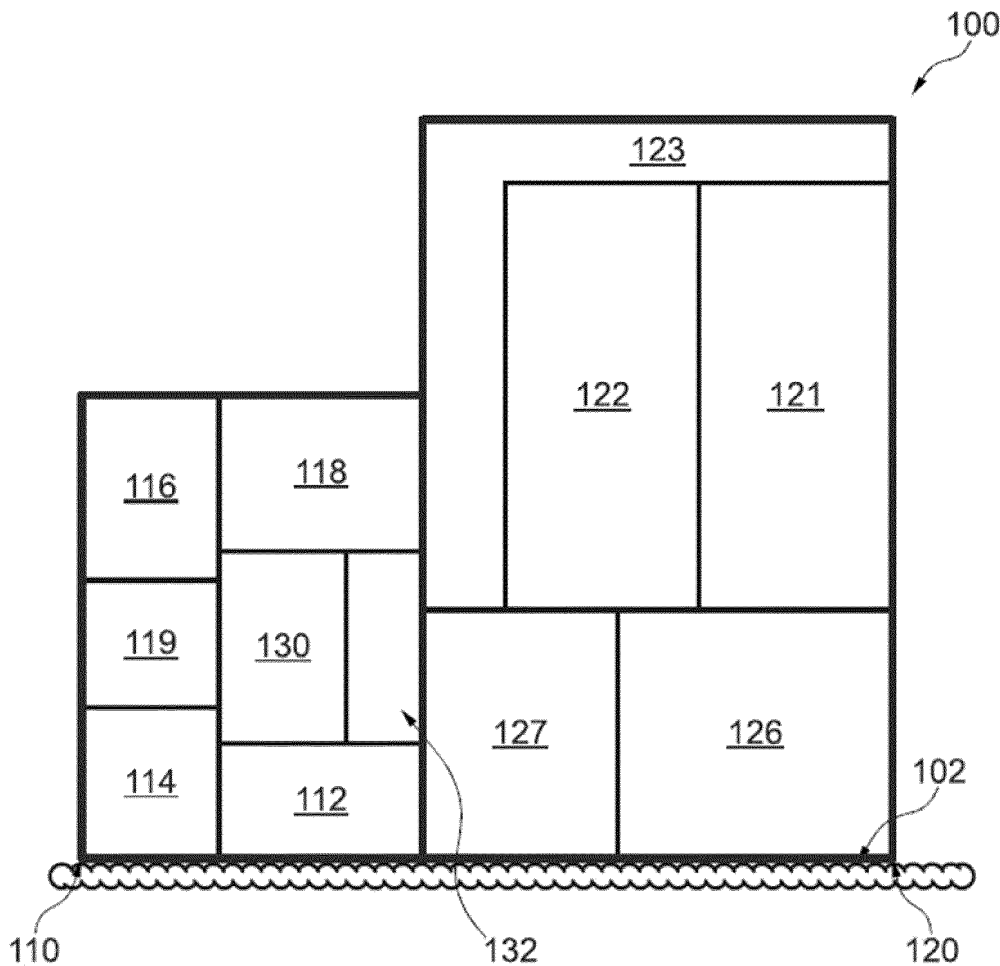


Fig. 24

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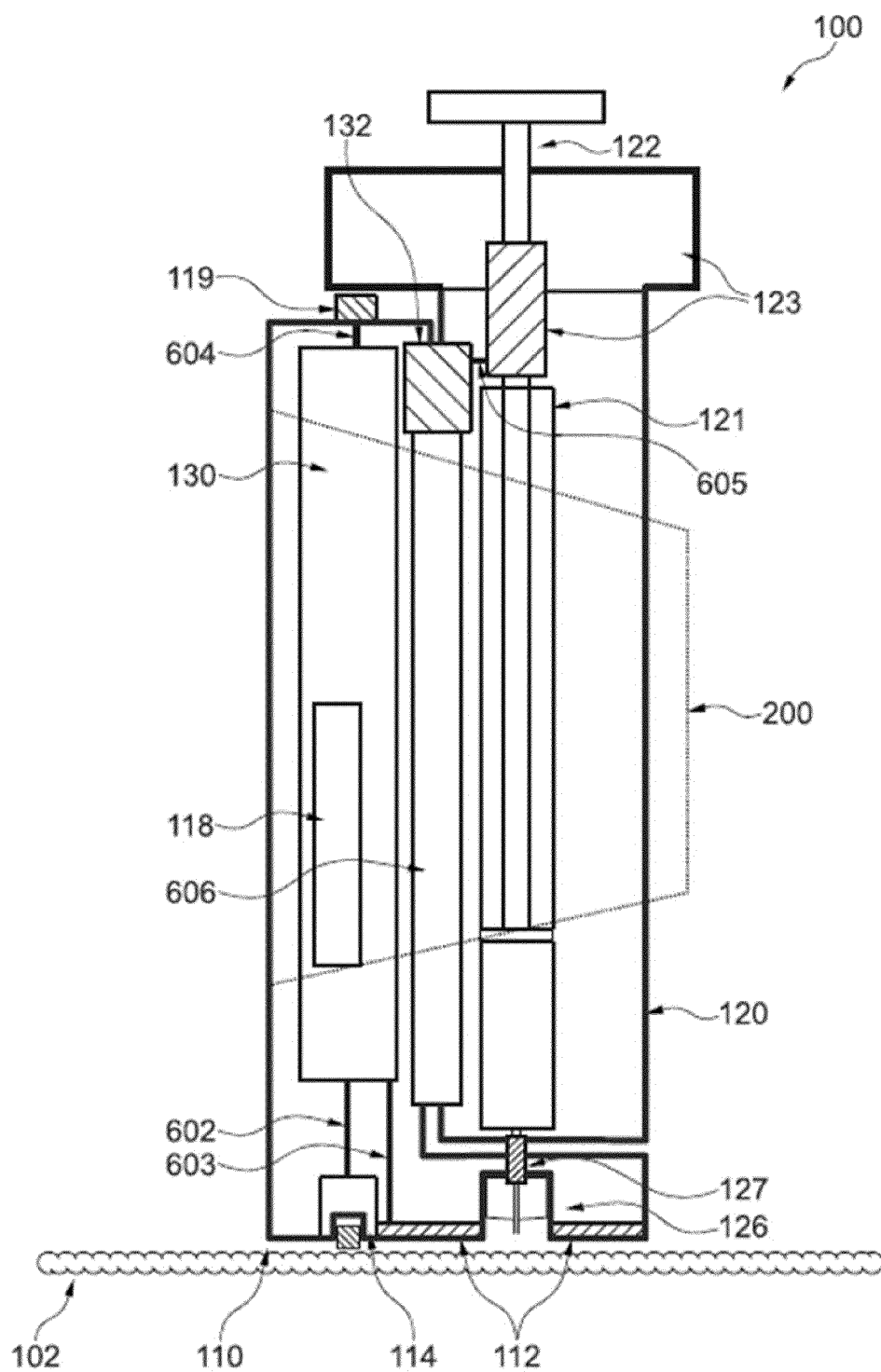


Fig. 25

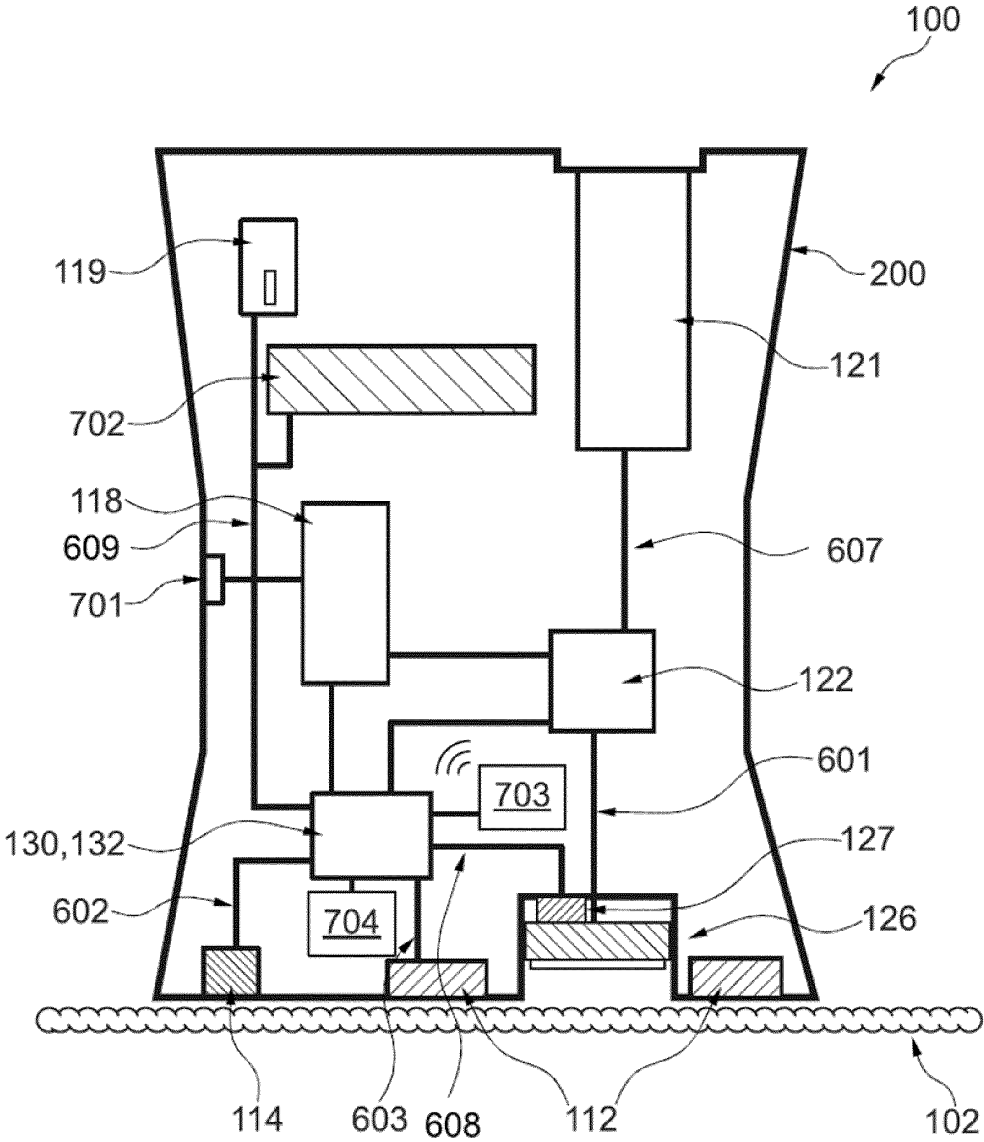


Fig. 26