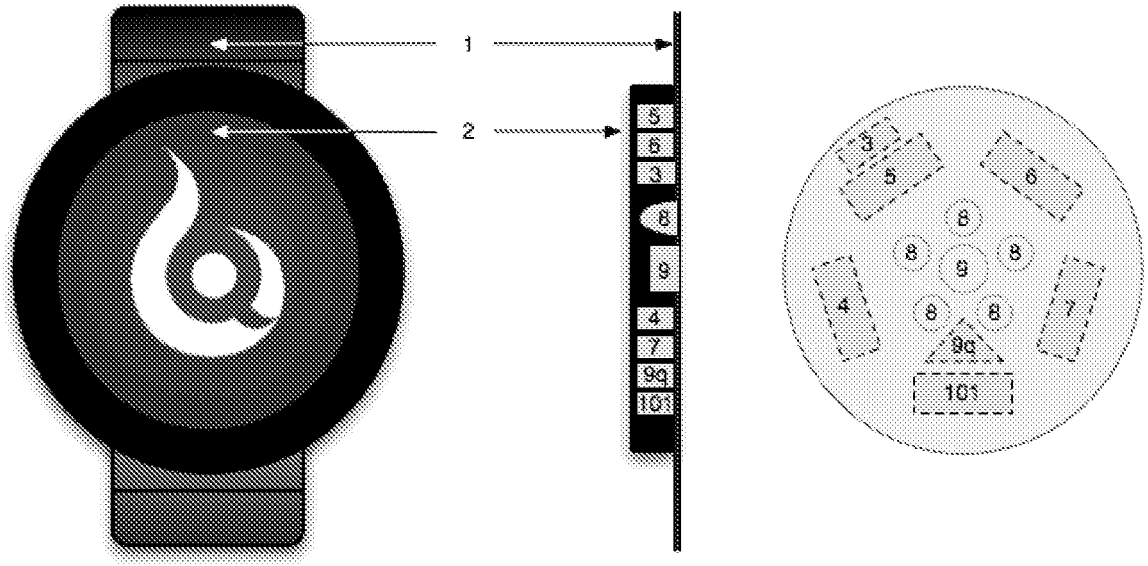


Figure 1

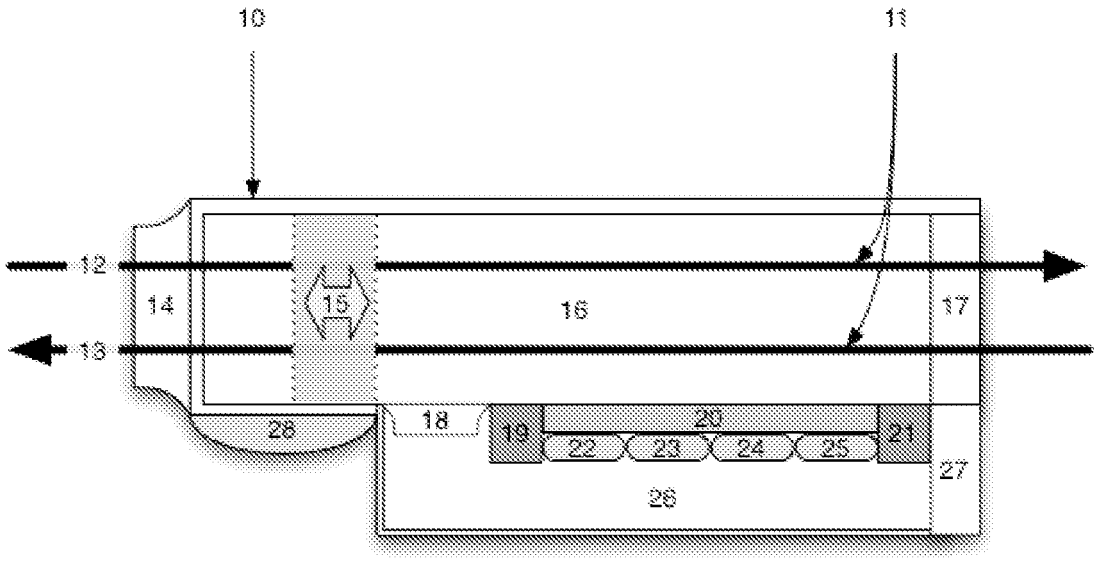


Figure 2a

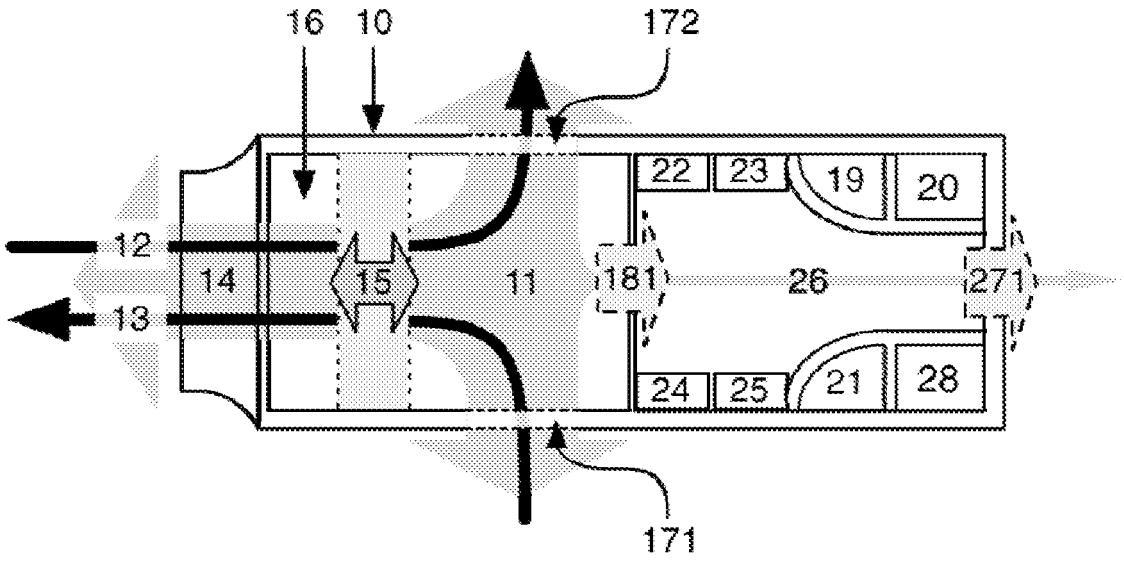
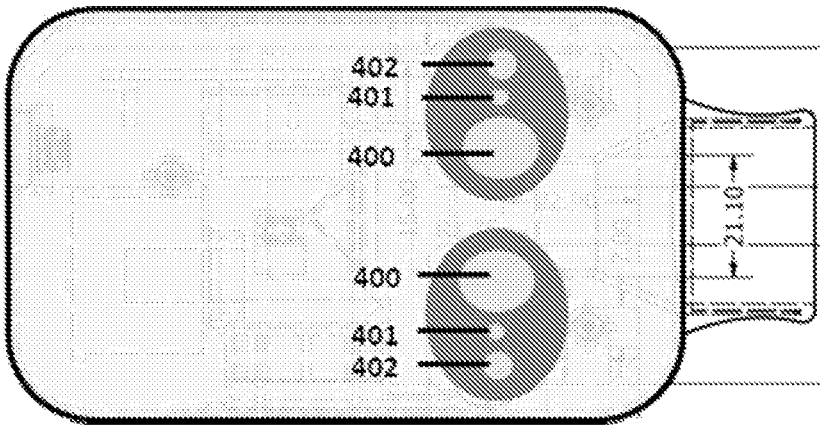
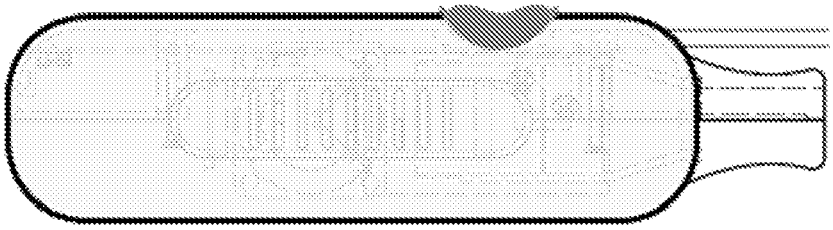


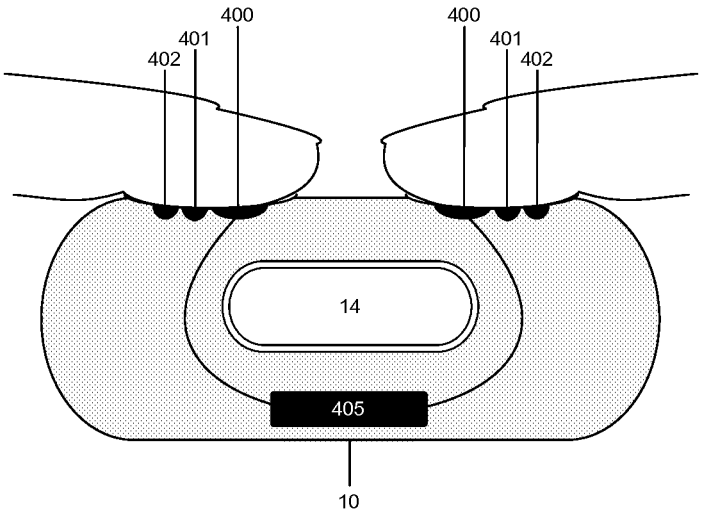
Figure 2b



Top View



Side View



Viewed From the Front

Figure 2c

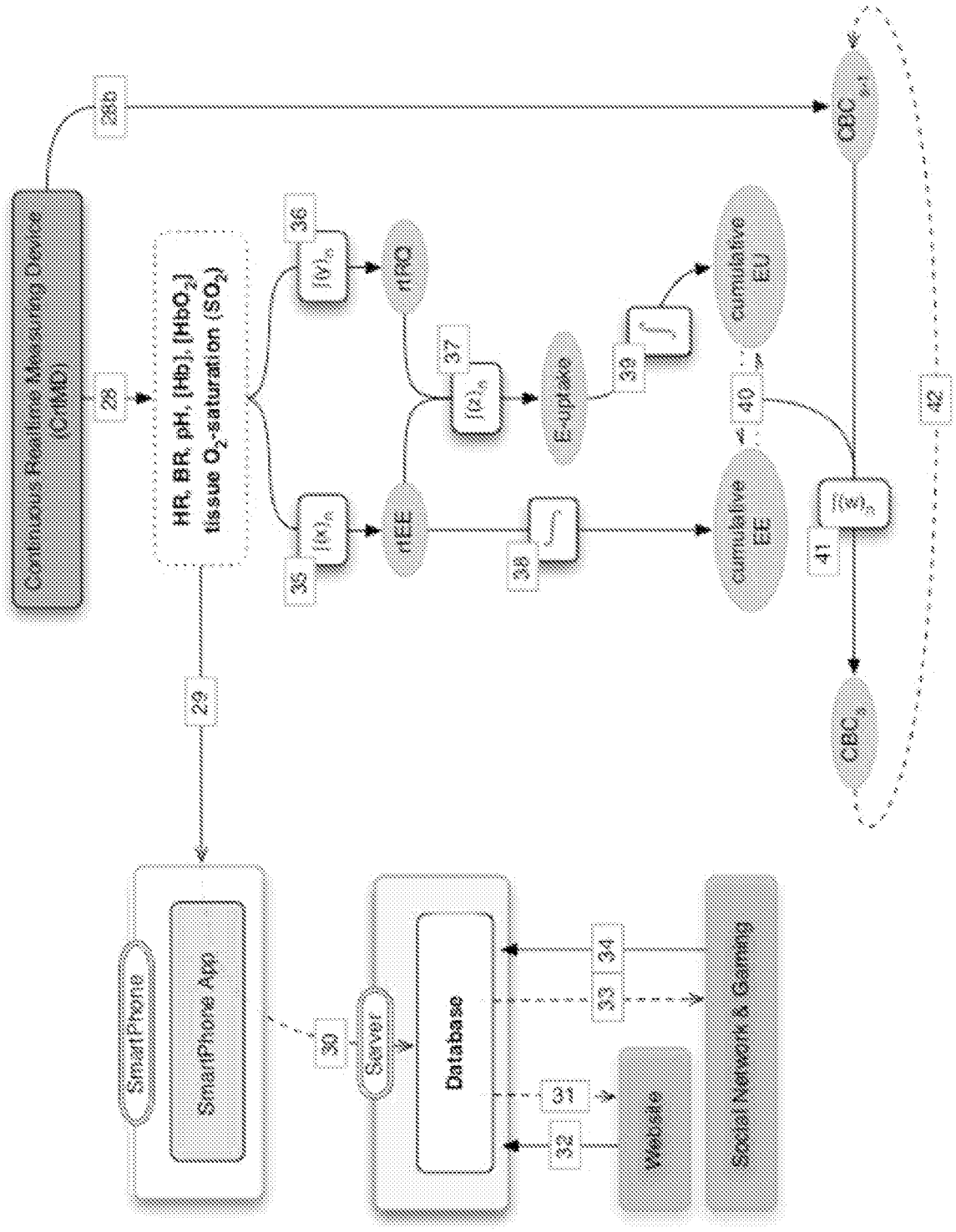

Continuous Realtime Measuring Device (CMD)
28
28b
HR, BR, pH, [Hb], [HbO2], tissue O2-saturation (SO2)
29
36
35
37
38
39
40
41
42
rEE
rFIO
E-uptake
cumulative EE
cumulative EU
SmartPhone
SmartPhone App
30
Server
Database
31
32
33
34
Website
Social Network & Gaming

Figure 3

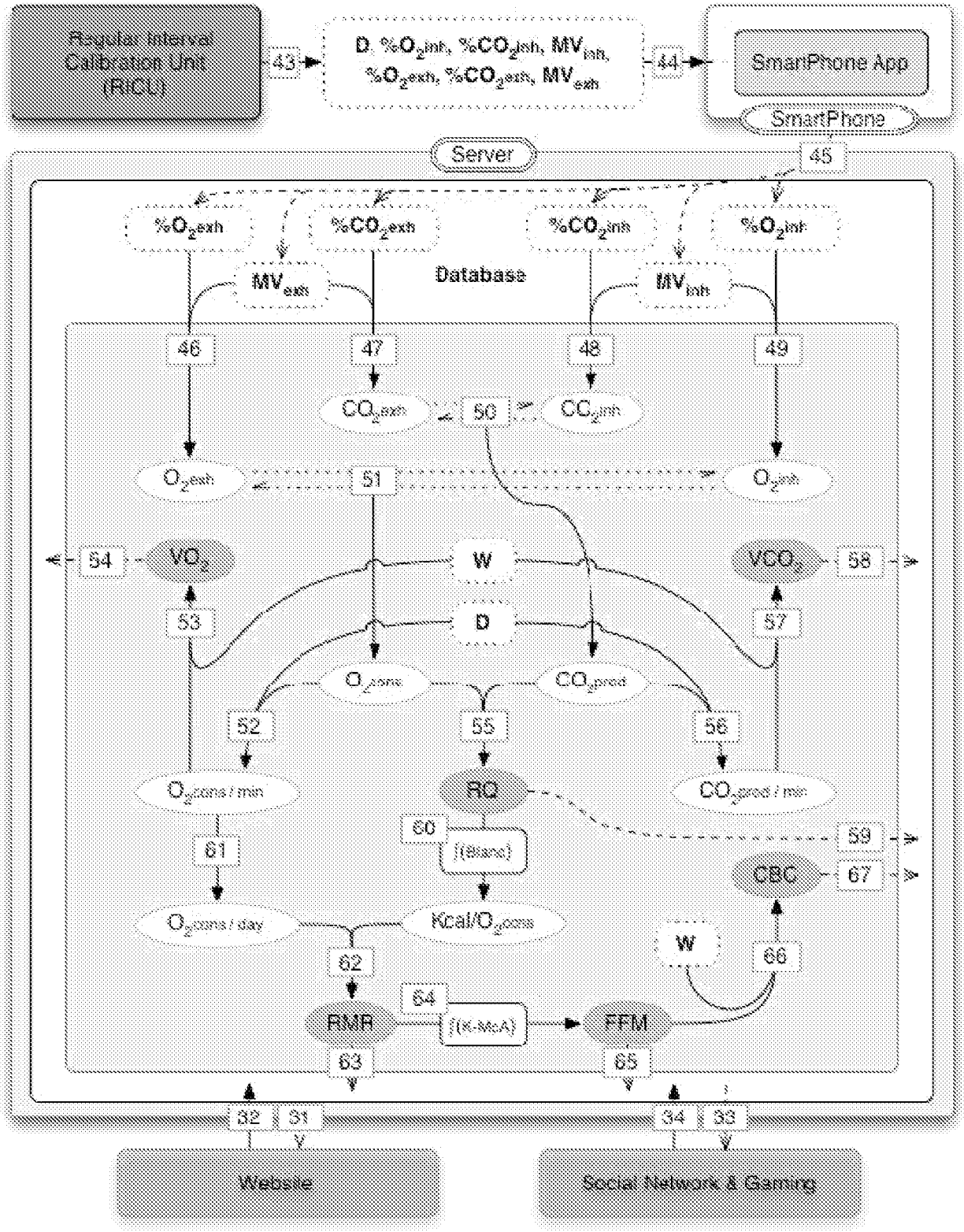

Regular Interval Calibration Unit (RICU)
43
D, %O2inh, %CO2inh, MVinh, %O2exh, %CO2exh, MVexh
44
SmartPhone App
SmartPhone
Server
45
%O2exh
%CO2exh
%CO2inh
%O2inh
MVexh
Database
MVinh
46
47
48
49
CO2exh
50
CO2inh
O2exh
51
O2inh
54
VO2
W
VCO2
58
53
D
57
O2cons
CO2prod
52
55
56
O2cons / min
RQ
CO2prod / min
60
f(Stans)
59
61
CBC
67
O2cons / day
Kcal/O2cons
W
66
62
64
RMR
f(K-McA)
FFM
63
65
32
31
34
33
Website
Social Network & Gaming

Figure 4

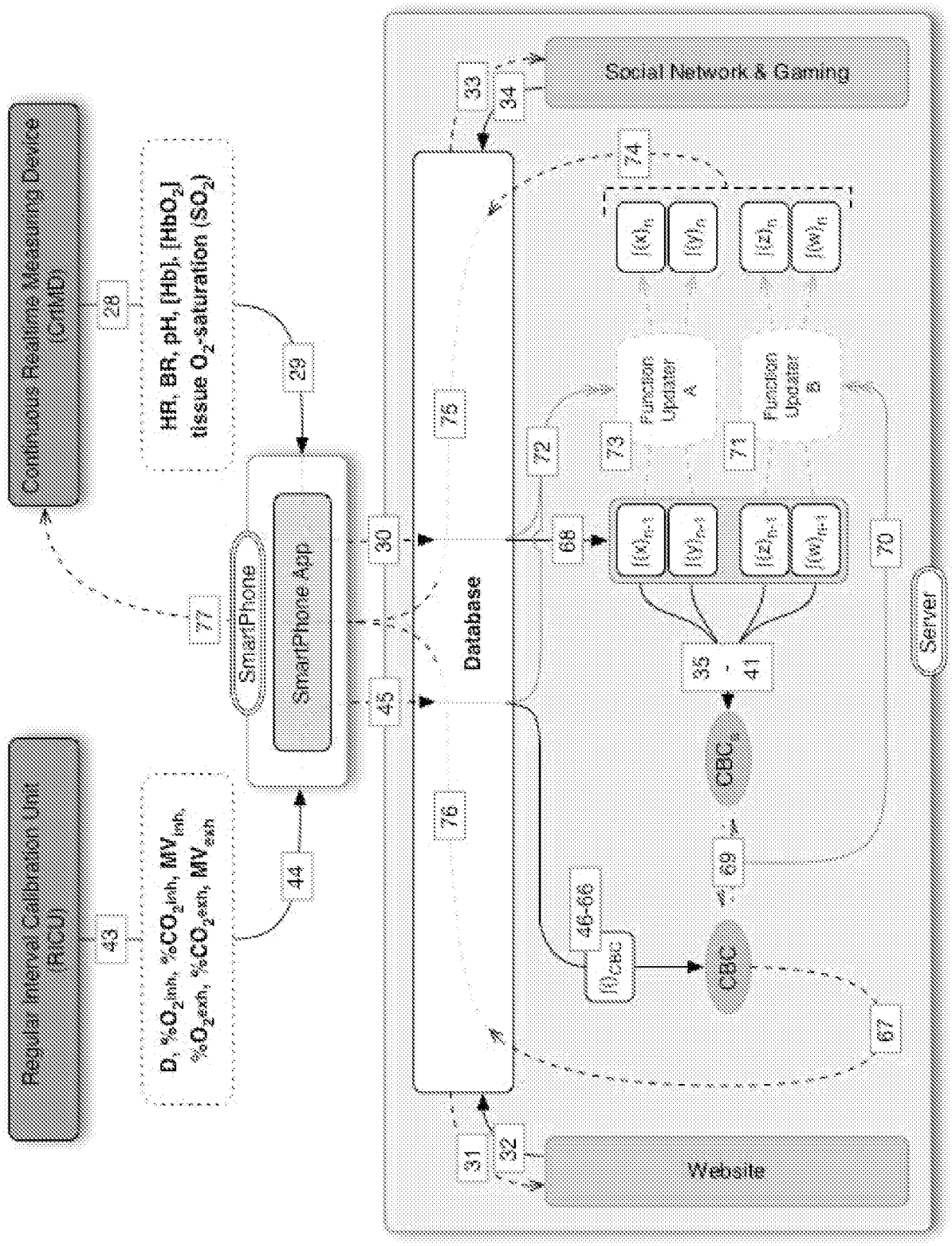

Continuous Real-time Measuring Device (CoMD)
28
HR, BR, pH, [Hb], [HbO2] tissue O2-saturation (SO2)
29
Regular Interval Calibration Unit (RCU)
43
D, %O2inh, %CO2inh, MVinh, %O2exh, %CO2exh, MVexh
44
77
SmartPhone
SmartPhone App
30
45
Database
75
76
72
68
73
71
Function Updater A
Function Updater B
74
70
35 - 41
CBCs
69
46-66
CBC
67
Server
33
34
Social Network & Gaming
31
32
Website

Figure 5

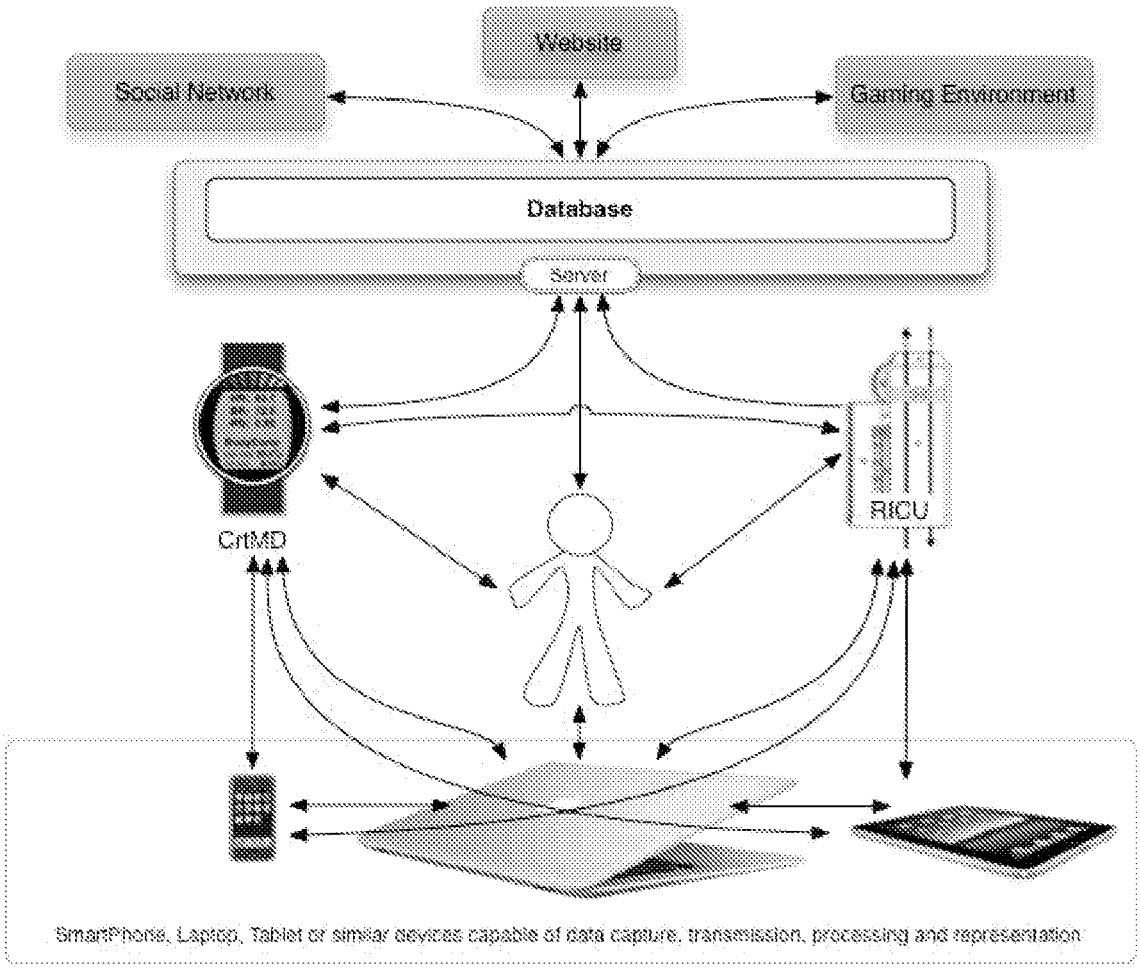

Website
Social Network
Gaming Environment
Database
Server
CntMD
RICU
SmartPhone, Laptop, Tablet or similar devices capable of data capture, transmission, processing and representation

Figure 6

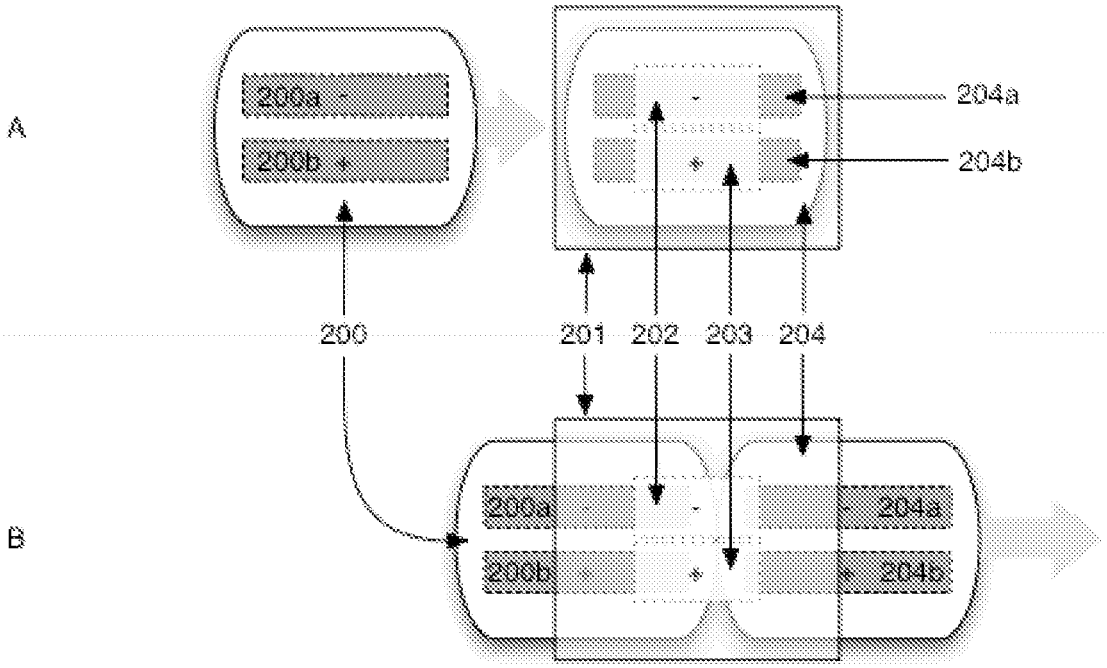


Figure 7a

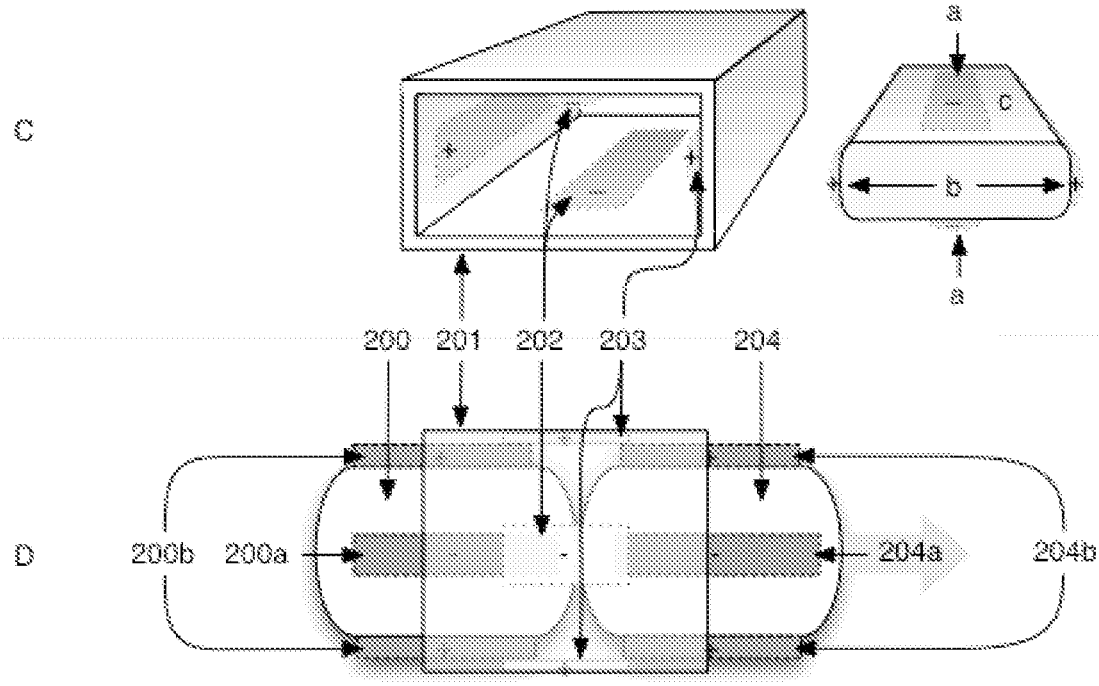


Figure 7b

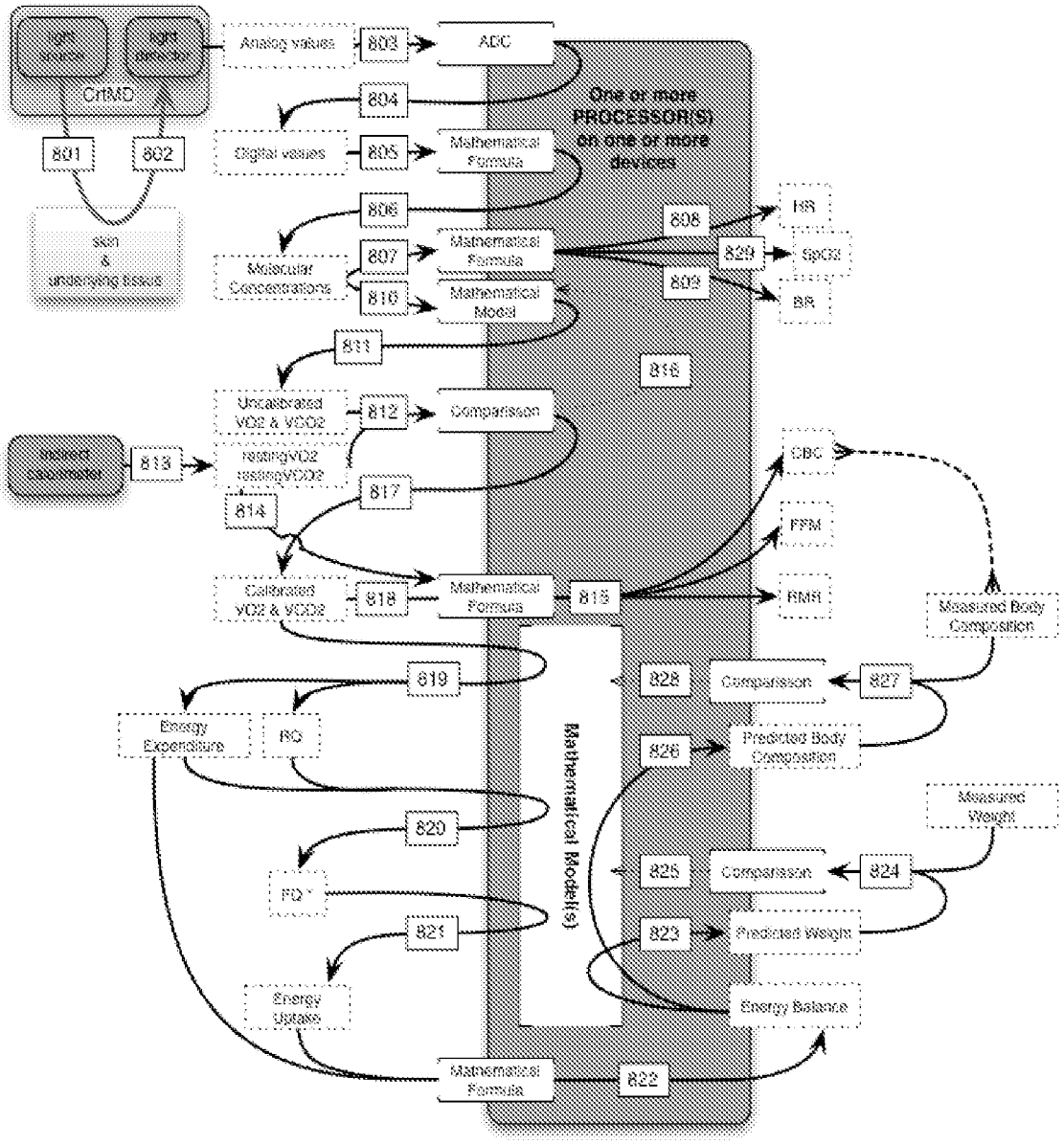

CntMD
801
802
skin & underlying tissue
Analog values
803
ADC
804
Digital values
805
Mathematical Formula
One or more PROCESSOR(S) on one or more devices
806
Molecular Concentrations
807
Mathematical Formula
808
HR
809
BR
829
SpO2
810
Mathematical Model
811
816
Uncalibrated VO2 & VCO2
812
Comparison
Ambient Calorimeter
813
restingVO2 restingVCO2
814
817
Calibrated VO2 & VCO2
818
Mathematical Formula
815
CBC
FFM
RMR
Measured Body Composition
827
828
Comparison
826
Predicted Body Composition
819
Energy Expenditure
RQ
820
FQ
821
Energy Uptake
Mathematical Model(s)
Measured Weight
824
825
Comparison
823
Predicted Weight
Energy Balance
Mathematical Formula
822

Figure 8

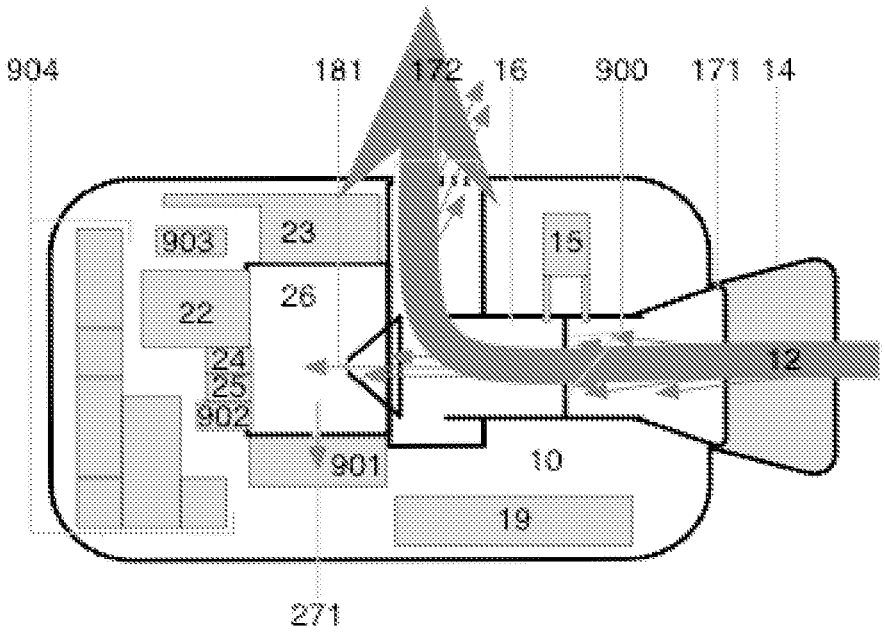


Figure 9a: Air Flow Dynamics generated by an exhalation.

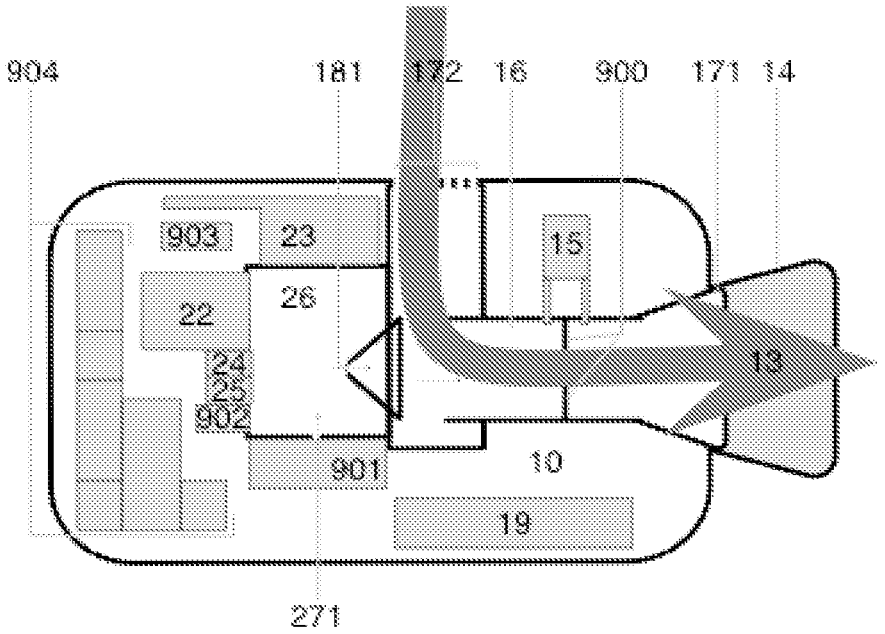


Figure 9b: Air Flow Dynamics generated by an inhalation.