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CORRECTION

Correction to: Carbon nanotube modified cellulose nonwovens: superhydrophobic, breathable, and sensitive for drowning alarm and motion monitoring

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Correction to: Cellulose
https://doi.org/10.1007/s10570-023-05695-7

In the original published article, the authors discovered that while processing the data, they have mistakenly treated Rmin as R0, resulting in a deviation in the result, which resulted in having to update the sensitivity section in Fig. 4 and Fig. 6.

The original article can be found online at https://doi.org/10.1007/s10570-023-05695-7.

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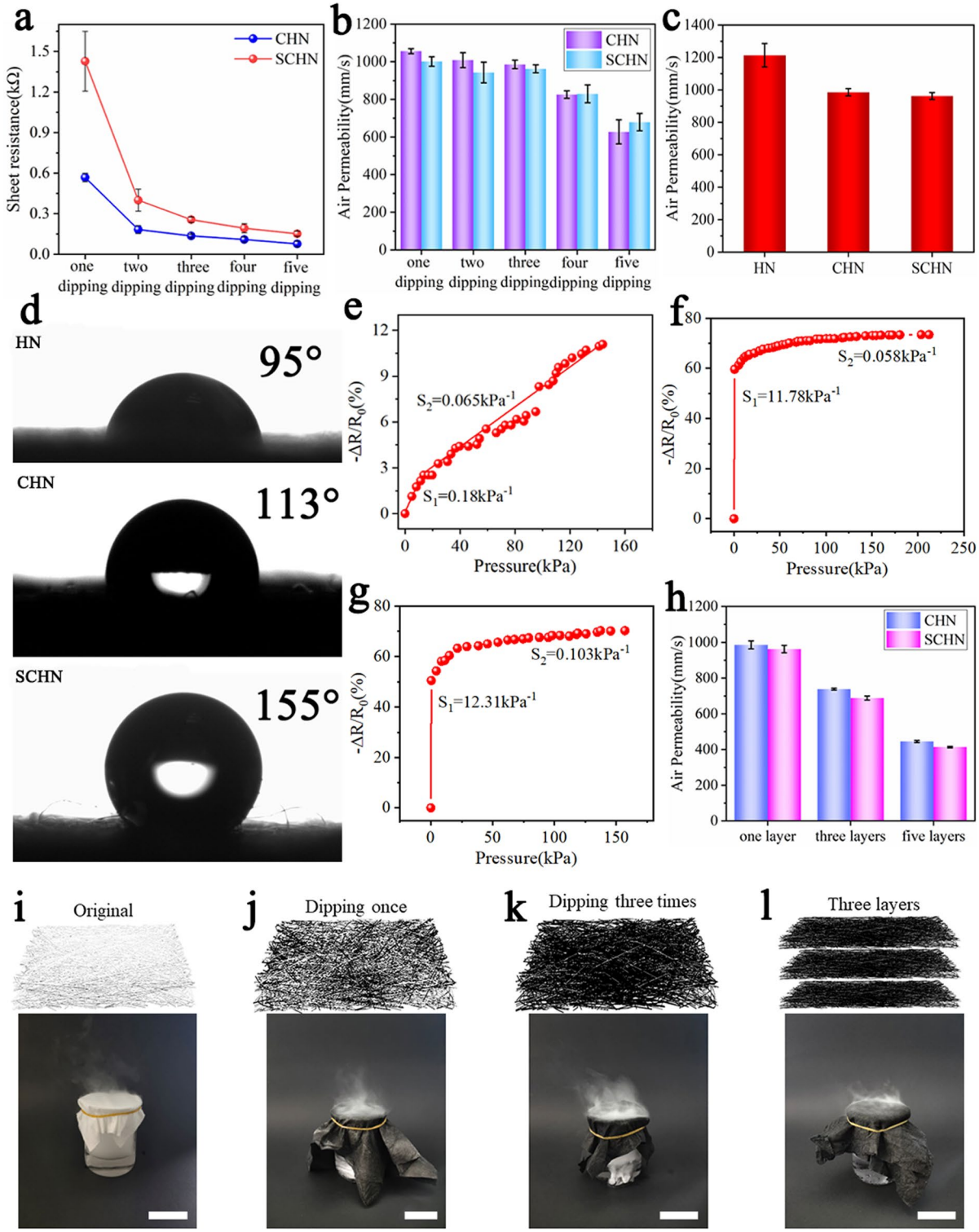
In addition to the relative resistance values of a,b,c,d,g in Fig. 5, the relative resistance values of a, b, c, d, e, and l in Fig. 8 and the ordinate in Fig. 9 also need to be updated, and do not affect the main results and conclusions of the paper.

However, the authors apologize for any inconvenience or confusion that this error may have caused to the readers and reviewers. The correct version of Figs. 4, 5, 6, 8 and 9 are provided in this correction.

Due to this error, the sensitivity value "128.39 kPa^{-1} in 0–0.6 kPa and 0.027 kPa^{-1} in 0.6–210 kPa" appearing in the Abstract, Introduction (fourth paragraph) and the conclusion section should be "11.78 kPa^{-1} in 0–5.20 kPa and 0.058 kPa^{-1} in 5.20–210 kPa".

Also, the information "It can be seen from the figure that the sensitivity of the one-layer structure sensor is 0.012 kPa^{-1} in the range of 0–57 kPa and 0.00069 kPa^{-1} in the range of 57–300 kPa. In contrast, the three-layer structure sensor has sensitivities as high as 128.39 kPa^{-1} in the range of 0 to 0.6 kPa and 0.027 kPa^{-1} in the range of 0.6 to 210 kPa. In the range of 0 to 0.84 kPa and 0.84 to 225 kPa, the sensitivity of the five-layer structure sensor is 131.51 kPa^{-1} and 0.086 kPa^{-1}, which is an increase of only a small amount compared to the three-layer structure." present in the section "Preparation and characterization of SCHN" under heading "**Results and discussion**" should be "It can be seen from the figure that the sensitivity of the one-layer structure sensor is 0.18 kPa^{-1} in the range of 0–13.58 kPa and


a
Sheet resistance(kΩ)
CHN
SCHN
one dipping
two dipping
three dipping
four dipping
five dipping
b
Air Permeability(mm/s)
CHN
SCHN
c
Air Permeability(mm/s)
HN
CHN
SCHN
d
HN
95°
CHN
113°
SCHN
155°
e
-ΔR/R0(%)
S2=0.065kPa-1
S1=0.18kPa-1
Pressure(kPa)
f
-ΔR/R0(%)
S2=0.058kPa-1
S1=11.78kPa-1
Pressure(kPa)
g
-ΔR/R0(%)
S2=0.103kPa-1
S1=12.31kPa-1
Pressure(kPa)
h
Air Permeability(mm/s)
CHN
SCHN
one layer
three layers
five layers
i
Original
j
Dipping once
k
Dipping three times
l
Three layers

◂**Fig. 4** **a** Resistance values of CHN and SCHN for different impregnation times; **b** Breathability of CHN and SCHN for different number of impregnations; **c** Comparison of the permeability of HN, CHN and SCHN; **d** Comparison of the contact angle of HN, CHN and SCHN; **e**–**g** Comparison of the sensitivity of single, three and five layers of SCHN; **h** Comparison of the permeability of one, three and five layers of CHN and SCHN; **i** Glass bottle filled with dry ice and warm water covered with HN, **j** impregnated once, **k** impregnated three times, and **l** 3 layers of SCHN covering the top of the glass bottle containing dry ice and warm water.(Scale bar 3.5 cm)

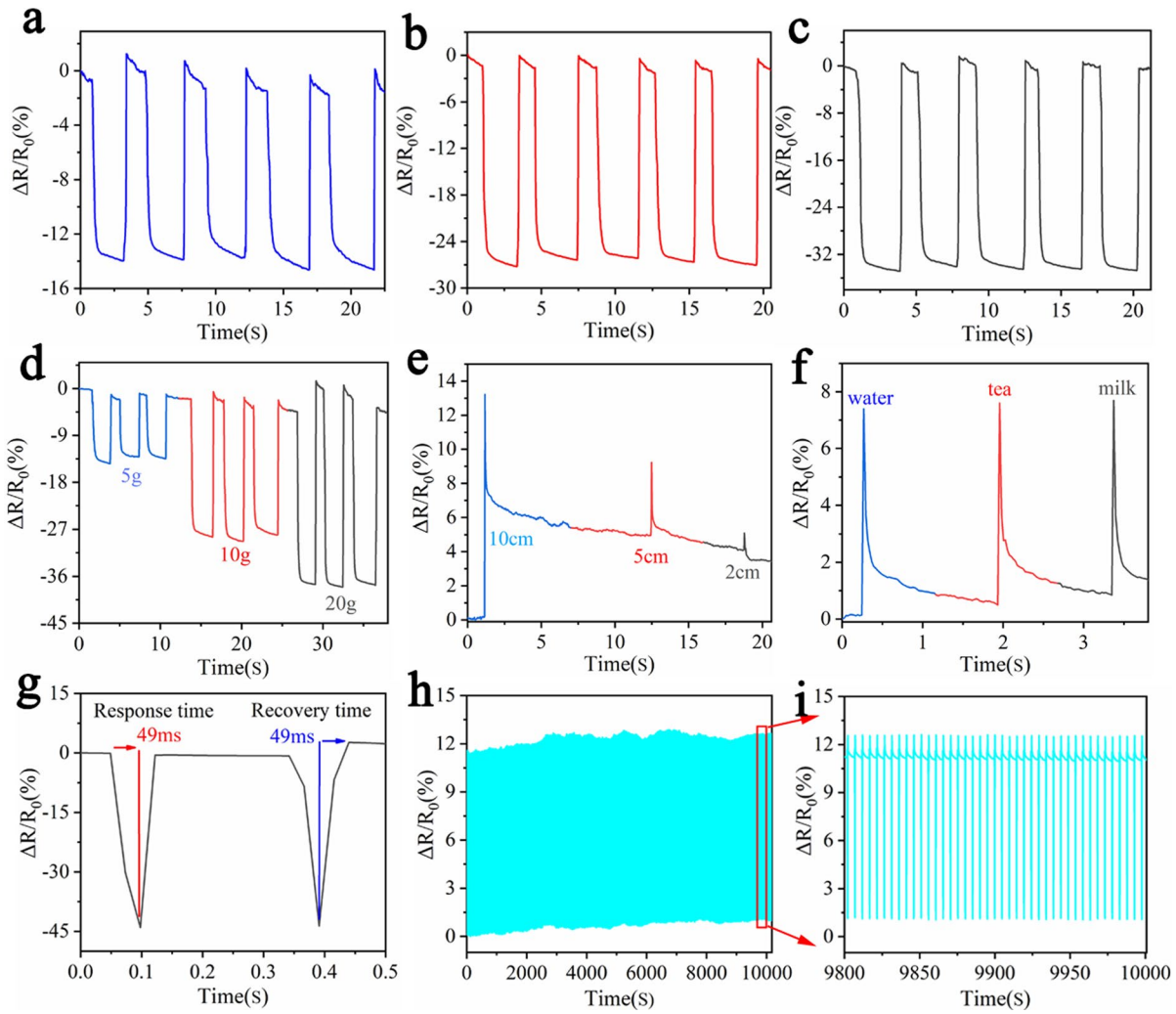


Fig. 5 **a** Pressure response curves of 5 g weights; **b** Pressure response curves of 10 g weights; **c** Pressure response curves of 20 g weights; **d** Comparison of pressure response curves for weights of 5 g, 10 g, and 20 g; (4) Responses of water drops at different heights; (5) Responses of drops of different species at the same height; **g** SCHN sensor response and recovery time; **h**–**i** Endurance testing under 2.5 kPa pressure for 2000 consecutive cycles

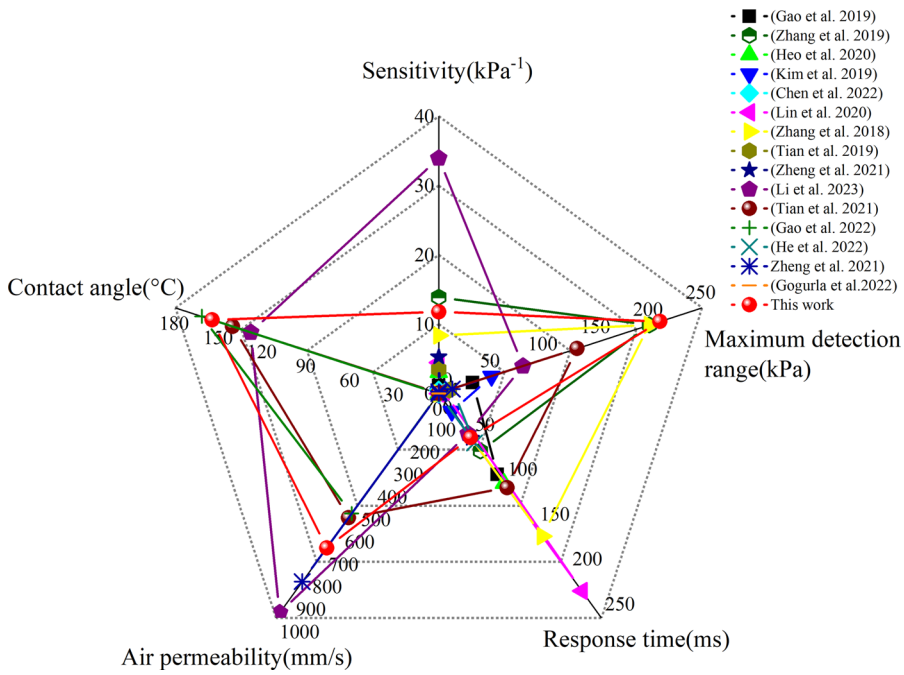


Fig. 6 Star-shaped comparison of sensor performance with other sensors reported in the literature

0.065 kPa^{-1} in the range of 13.58–143 kPa. In contrast, the three-layer structure sensor has ensitivities as high as 11.78 kPa^{-1} in the range of 0–5.20 kPa and 0.058 kPa^{-1} in the range of 5.20–210 kPa. In the range of 0–4.41 kPa and 4.41–157 kPa, the sensitivity of the five-layer structure sensor is 12.31 kPa^{-1} and 0.103 kPa^{-1}, which is an increase of only a small amount compared to the three-layer structure".

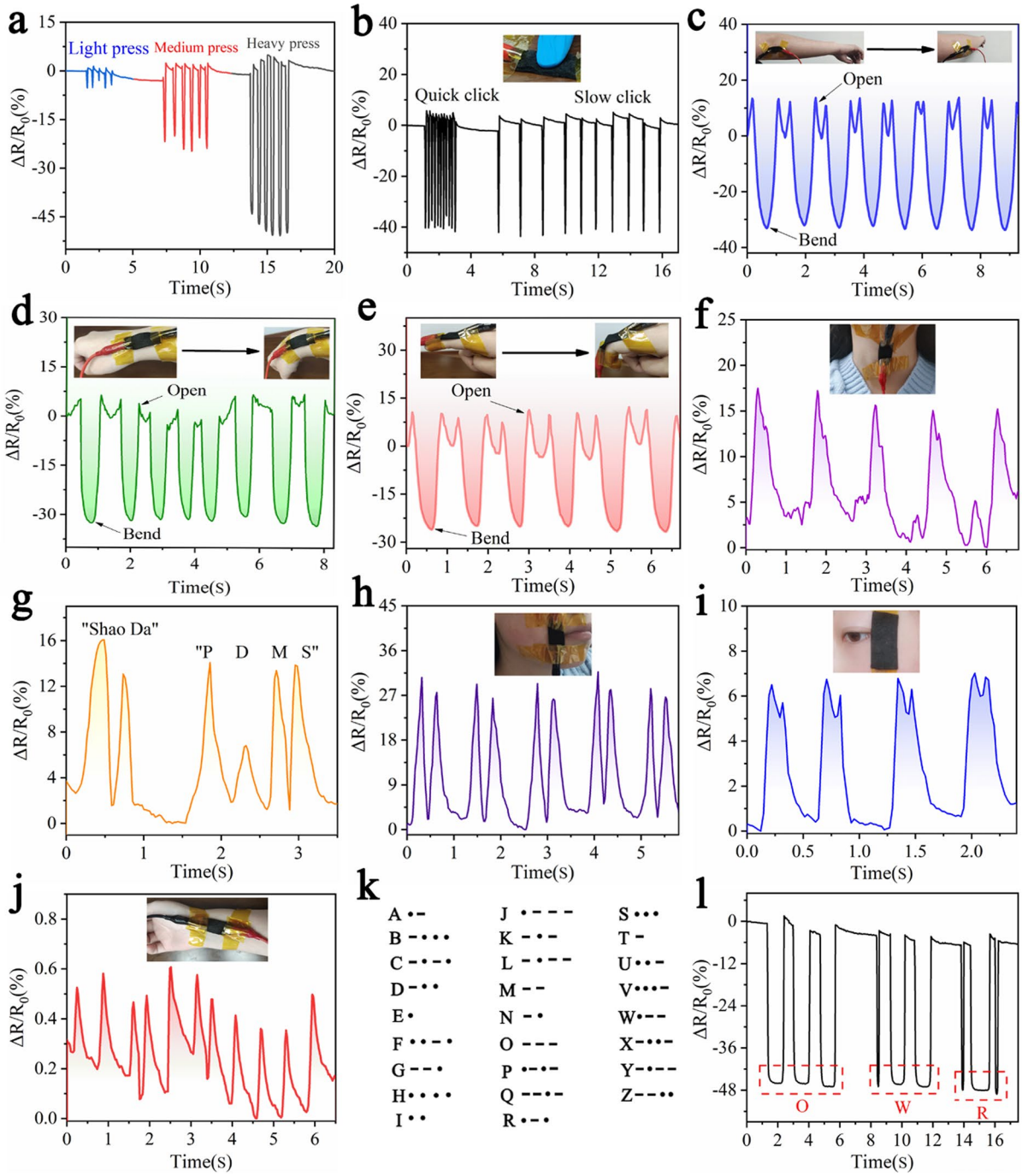


Fig. 8 **a** Finger press response for different forces; **b** Response for different finger clicks; **c** Elbow flexion movement; **d** Wrist flexion movement; **e** Finger flexion movement; **f** Resistance change when the volunteer swallows; **g** Real-time monitoring of "CNT" and "PDMS" speech response vibrations; **h** Mouth opening; **i** Blinking; **j** Detection of arterial heart pulse signals on the wrist; **k** Morse code table of 26 English letters; **l** Signals from Morse code

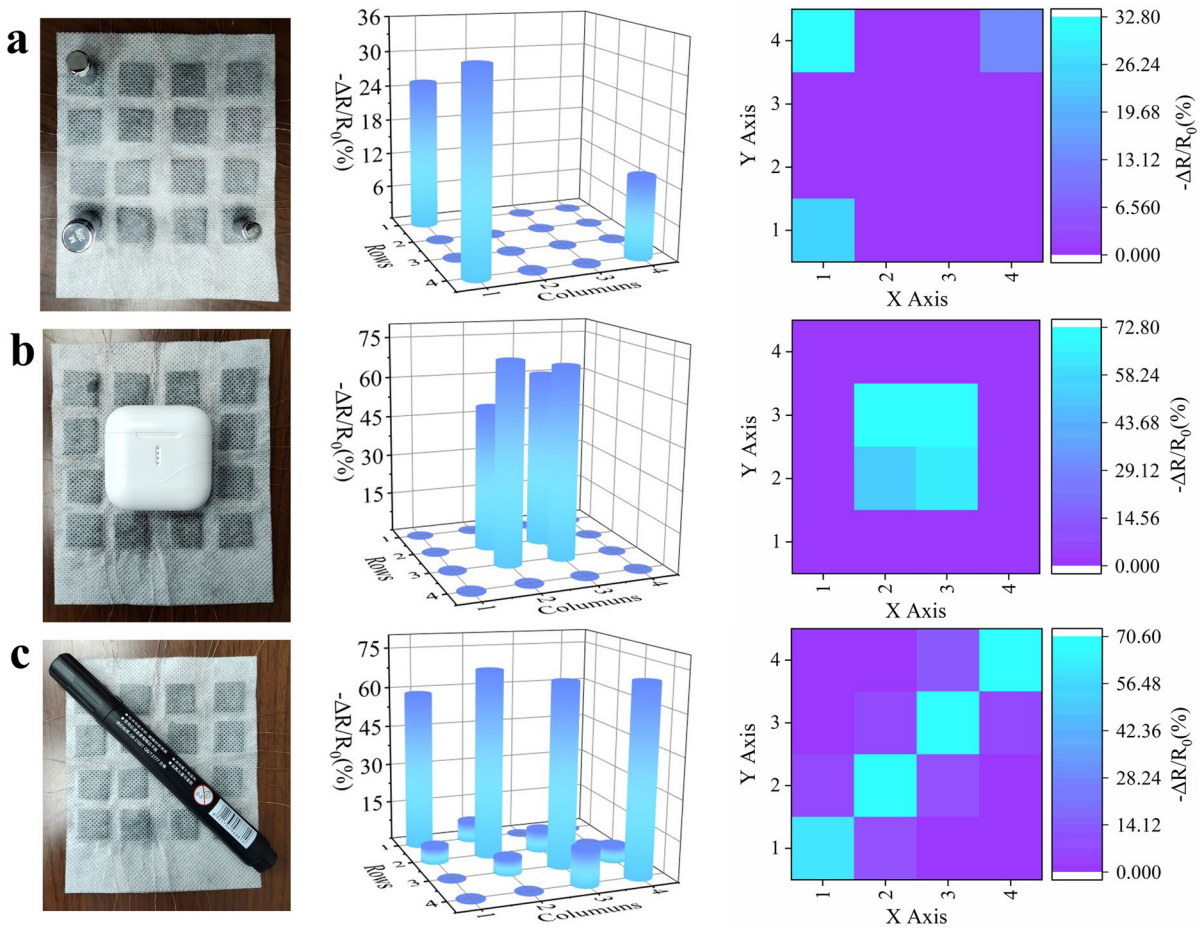


Fig. 9 **a** Photographs of 5 g, 10 g, and 20 g weights placed on a 4×4 SCHN sensor array and distribution of relative resistance changes; **b** Photograph of a Bluetooth headset placed on a 4×4 SCHN sensor array and distribution of relative resistance changes; **c** Photograph of a black marker placed on a 4×4 SCHN sensor array and distribution of relative resistance changes

The original article has been corrected.