

Erratum

Erratum to “The Possibility of Changing the Wettability of Material Surface by Adjusting Gravity”

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In the article titled “The Possibility of Changing the Wettability of Material Surface by Adjusting Gravity” [1], there were errors in Figure 2 which occurred during production. These errors are listed below, and the corrected version is shown as Figure 1:

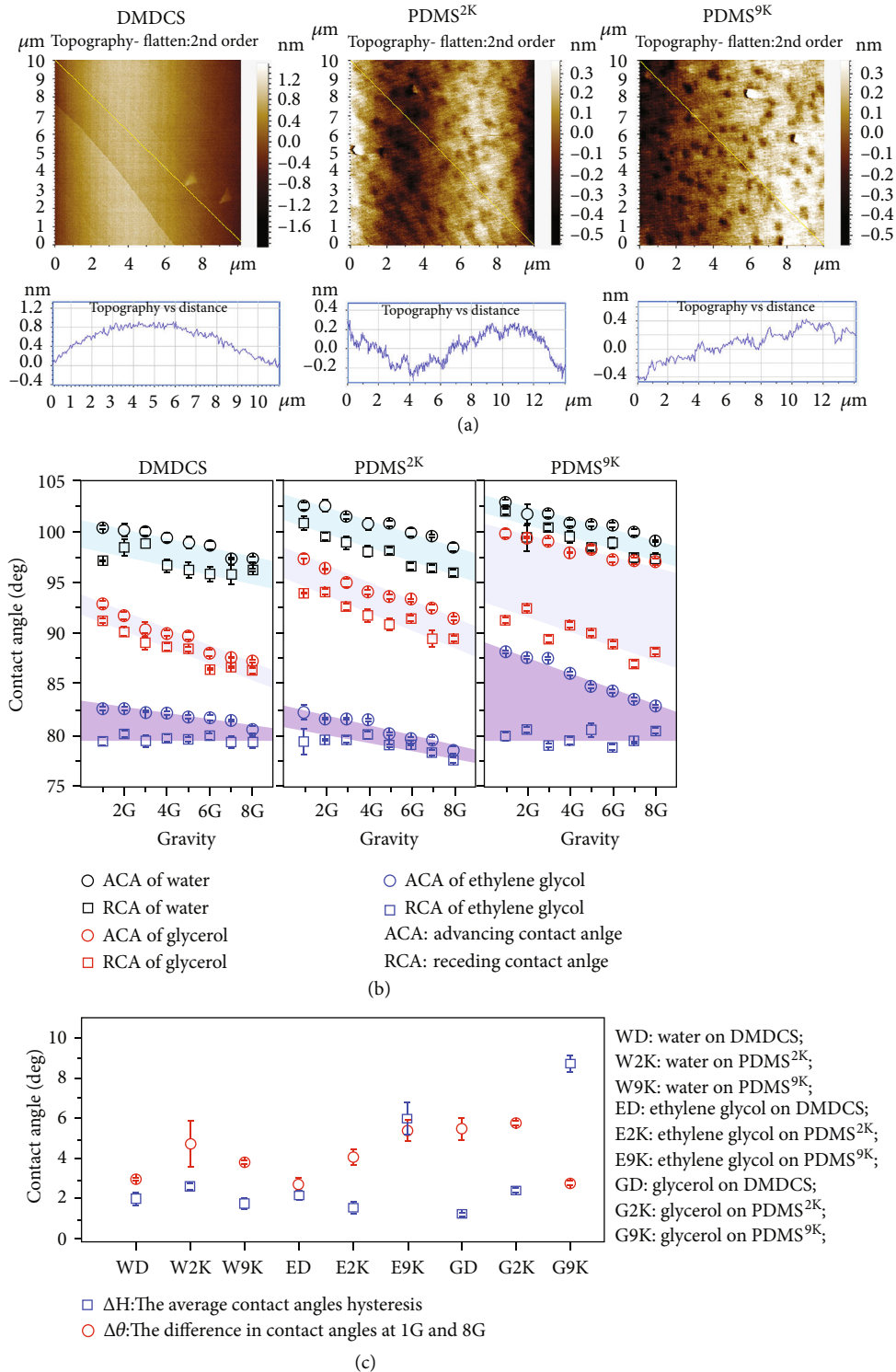


FIGURE 1: Apparent contact angles versus the gravity. (a) AFM images of the sample solid surfaces and their section analyses. The analyses show that the surfaces are very smooth, with roughness less than 1 nm. (b) The contact angle on solid surfaces at different gravities. The contact angles show the same tendency to decrease with increasing gravity. The contact angle hysteresis is smaller than 3° , except for the cases of ethylene glycol and glycerol on PDMS^{9K}. (c) Comparison of $\Delta\theta$ (the difference in contact angles at 1 G and 8 G) and ΔH (the average contact angle hysteresis). Independent t test was applied, $n = 3$, $P < 0.05$, $P < 0.001$, $P < 0.001$, $P < 0.05$, $P < 0.001$, and $P < 0.001$, for water on DMDCS, water on PDMS^{9K}, ethylene glycol on PDMS^{2K}, glycerol on DMDCS, glycerol on PDMS^{2K}, and glycerol on PDMS^{9K}, respectively. Five out of the nine solid-liquid contact systems showed significant larger $\Delta\theta$ than ΔH , and three showed comparable results. The experimental results confirmed that the decrease in contact angle upon increasing gravity is caused by the gravity, not only by the contact angle hysteresis.

In panel (b), “ACA of ethylene glycol” should read “ACA of ethylene glycol.”

In panel (c), “The difference in contact angles at 1G and 8G” should read “The difference in contact angles at 1G and 8G.”

In panel (c), “ED: Ethylene on DMDCS” should read “ED: Ethylene glycol on DMDCS.”

In panel (c), “E2K; Ethylene on PDMS^{2K}” should read “E2K; Ethylene glycol on PDMS^{2K}.”

In panel (c), “E9K: Ethylene on PDMS^{9K}” should read “E9K: Ethylene glycol on PDMS^{9K}.”

In panel (c), the blue squares should represent “ ΔH : The average contact angle hysteresis,” and the red circle should represent “ $\Delta\theta$: The difference in contact angles at 1G and 8G.”

In the figure caption of Figure 2, the sentence “Comparison of $\Delta\theta$ (the difference in contact angles at 1G and 8G) and ΔH (the average contact angle hysteresis)” should read “Comparison of $\Delta\theta$ (the difference in contact angles at 1G and 8G) and ΔH (the average contact angle hysteresis).”

References

- [1] Y.-M. Liu, Z.-Q. Wu, S. Bao et al., “The possibility of changing the wettability of material surface by adjusting gravity,” *Research*, vol. 2020, Article ID 2640834, 11 pages, 2020.