Engineering 22 (2023) 233

Contents lists available at ScienceDirect

Engineering

journal homepage: www.elsevier.com/locate/eng

Erratum

Erratum to "Probing the Interfacial Forces and Surface Interaction Mechanisms in Petroleum Production Processes" [Engineering 18 (2022) 49–61]

Diling Yang [a], Xuwen Peng [a], Qiongyao Peng [a], Tao Wang [a], Chenyu Qiao [a], Ziqian Zhao [a], Lu Gong [a], Yueliang Liu [b], Hao Zhang [a,*], Hongbo Zeng [a,*]

[a] Department of Chemical and Materials Engineering, University of Alberta, Edmonton, AB T6G 1H9, Canada
[b] College of Petroleum Engineering, China University of Petroleum, Beijing 102249, China

In Ref. [1], Eq. (8) has a typo, the following replacement should be done.

$$\frac{\gamma_{bb}}{2r}\frac{\partial}{\partial r}\left(r\frac{\partial h(r,t)}{\partial r}\right)=\frac{2\gamma_{bb}}{R_{bb}}-p(r,t)-\prod[h(r,t)] \quad \text{(bubble/drop–bubble/drop)} \tag{1}$$

The publisher regrets an error in the original –article, and the sentence that explained the equation "Eqs. (8)–(10) show the augmented Young–Laplace equation for the interactions of gas bubbles or liquid droplets in different configurations, where R_b is the bubble/drop radius, R_p is the particle radius, $R_{bp} = (1/R_b + 1/R_p)^{-1}$, γ is the interfacial tension, and $\Pi[h(r,t)]$ is the total disjoining pressure." requires some additional explanation for the parameters. The correct sentence should read:

"Eqs. (8)–(10) show the augmented Young–Laplace equation for the interactions of gas bubbles or liquid droplets in different configurations, where R_b is the bubble/drop radius, $R_{bb} = 2(1/R_{b1} + 1/R_{b2})^{-1}$ is the equivalent radius for the interacting bubble/drop 1 and 2 with radii R_{b1} and R_{b2} respectively, $\gamma_{bb} = 2(1/\gamma_{b1} + 1/\gamma_{b2})^{-1}$ is the equivalent interfacial tension for bubble/drop 1 and 2 with interfacial tension γ_{b1} and γ_{b2} respectively, R_p is the particle radius, $R_{bp} = (1/R_b + 1/R_p)^{-1}$, γ is the interfacial tension, and $\Pi[h(r,t)]$ is the total disjoining pressure."

The publisher apologizes for any inconvenience caused. This erratum may prevent the erroneous equation from being used in the future.

Reference

[1] Yang D, Peng X, Peng Q, Wang T, Qiao C, Zhao Z, et al. Probing the interfacial forces and surface interaction mechanisms in petroleum production processes. Engineering 2022;18:49–61.

DOI of original article: https://doi.org/10.1016/j.eng.2022.06.012
* Corresponding authors.
E-mail addresses: hao.zhang@ualberta.ca (H. Zhang), hongbo.zeng@ualberta.ca (H. Zeng).

https://doi.org/10.1016/j.eng.2023.02.001