

## Correction to Quantifying Short-Lived Events in Multistate Ionic Channel Measurements

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An inconsistent boundary condition in eq 2 was corrected. This change does not in any way alter the results or the conclusions of the paper.

Page 1549, column 1, line 11. The text reads as follows:

"In Laplace space, each transition is modeled with a Heaviside step function,  $R_p(s) = \Delta R_p/s$ , where  $\Delta R_p$  is the instantaneous change in pore resistance, per unit time. We can obtain an expression for the nanopore current response of a single transition by substituting eq 1 into  $I(s) = V_a/Z(s)$  and simplifying

$$I(s) = \frac{\alpha s}{1 + \tau s} \quad (2)$$

where  $\alpha = (1/\Delta R_p + C_m)V_a$  and  $\tau = (R_{cis} + R_{trans})(1/\Delta R_p + C_m)$ . The inverse Laplace transform of eq 2, yields an exponentially decaying time-domain current response

$$i(t) = -\frac{\alpha}{\tau^2}e^{-t/\tau} + i_0, t > 0 \quad (3)$$

where  $i_0$  is the open channel current offset."

It should be replaced with the following:

"The circuit response for each transition (with characteristic pore resistance  $R_p$ ) is modeled with a voltage step,  $V_a(s) = V_a/s$ . From eq 1 and Ohm's law, the ionic current is then  $I(s) = V_a(s)/Z(s)$ . Upon simplification

$$I(s) = \frac{a(s + b)}{s(s + 1/\tau)} \quad (2)$$

where  $a = V_a/(R_{cis} + R_{trans})$ ,  $b = 1/(R_p C_m)$ , and  $\tau = R_p C_m(R_{cis} + R_{trans})/(R_p + R_{cis} + R_{trans})$ . The inverse Laplace transform of eq 2 yields an exponentially decaying time-domain current response

$$i(t) = \alpha e^{-t/\tau} + i_0, t > 0 \quad (3)$$

where  $\alpha = a(1 - b\tau)$  and  $i_0 = ab\tau$  is the open channel current offset."

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