

## Correction to “Tectonic synthesis of the Olympic Mountains segment of the Cascadia wedge, using two-dimensional thermal and kinematic modeling of thermochronological ages”

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Received 17 November 2003; published 16 January 2004.

*INDEX TERMS:* 1035 Geochemistry: Geochronology; 3210 Mathematical Geophysics: Modeling; 8102 Tectonophysics: Continental contractional orogenic belts; 9350 Information Related to Geographic Region: North America; 9900 Corrections

**Citation:** Batt, G. E., M. T. Brandon, K. A. Farley, and M. Roden-Tice (2004), Correction to “Tectonic synthesis of the Olympic Mountains segment of the Cascadia wedge, using two-dimensional thermal and kinematic modeling of thermochronological ages,” *J. Geophys. Res.*, 109, B01407, doi:10.1029/2003JB002897.

[1] In the paper “Tectonic synthesis of the Olympic Mountains segment of the Cascadia wedge, using two-dimensional thermal and kinematic modeling of thermochronological ages” by Geoffrey E. Batt, Mark T. Brandon, Kenneth A. Farley, and Mary Roden-Tice (*Journal of Geophysical Research*, 106(B11), 26,731–26,746, 2001), there were errors in two of the equations. The errors were entirely topographical and in no way affect the calculations, analysis, and conclusions of our paper.

[2] The corrections are as follows: Horizontal velocity is determined by maintenance of a flux balance,

$$u(x, z) = u(x, 0) = \frac{\alpha}{h(x)} \int_x^w \dot{\epsilon}(x) dx, \quad (4)$$

where  $h(x)$  is the thickness of the wedge at a distance  $x$  from the deformation front. The vertical velocity  $w$  can then be obtained from the continuity equation  $\partial u / \partial x + \partial w / \partial z = 0$ . Using equation (4), we get

$$w(x, z) = \dot{\epsilon}(x) + \frac{\alpha z}{x \tan(\theta)} \left[ \dot{\epsilon}(x) + \frac{1}{x} \int_x^w \dot{\epsilon}(x) dx \right], \quad (5)$$

where  $h(x) = x \tan(\theta)$ . The flux steady state condition specifies that vertical velocity at the surface  $w(x, 0)$  is equal to the erosion rate  $\dot{\epsilon}(x)$ .