

# ERRATUM

## Chapter 2 The Mean and Variance of a Tracer Curve

O. Levenspiel, *Tracer Technology*, Fluid Mechanics and Its Applications 96,  
DOI 10.1007/978-1-4419-8074-8, © Springer Science+Business Media, LLC 2012

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**DOI 10.1007/978-1-4419-8074-8\_13**

### Page 7, equation 2.6

Please insert = and change last = to a – (minus)

$$\sigma^2 = \frac{\sum t_i^2 C_i \Delta t_i}{\sum C_i \Delta t_i} - \bar{t}^2 \text{ for equal } \Delta t_i = \frac{\sum t_i^2 C_i}{\sum C_i} - \bar{t}^2.$$

### Page 8

Please insert an ‘A’ at the beginning of the sentence.

#### 2. For symmetrical S-shaped data

A smooth S-shaped step-response curve often corresponds to ...

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## Chapter 3 The E and $E_\theta$ Curves from Pulse and Step Tracer Experiments

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### Page 21

Fig. 3.15 F value from the last of Table EZ should be Fig. 3.15 F value from Table E2.

### Page 22

On line 3 - Please change this equation from  $\frac{\underline{m}}{v}$  to  $\frac{\dot{m}}{v}$

(where you remove the line under the 'm' and add a dot over the 'm' and italicize the 'v')

### Page 22

On line 4 - Please insert 'However' before *from the above graph* and add a ':' after *graph*

However from the above graph:

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## Chapter 6 The Mean and Variance of a Tracer Curve

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### Page 52, equation 6.4

First row of equation: Please change the  $t$  in the denominator to a  $\bar{t}$  with a line above it

$$= \frac{\bar{t}_E}{t} = \frac{\bar{t}_E v}{V} = 1$$

to

$$= \frac{\bar{t}_E}{\bar{t}} = \frac{\bar{t}_E v}{V} = 1$$

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## Chapter 7 Intermixing of Flowing Fluids

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### Page 75

Please add (see Fig. 6.3) to the sentence on line 4

“Since  $D/ul < 0.01$ , the tracer curve is symmetrical, (see Fig. 6.3) so”

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## Chapter 8 The Tanks-in-Series Model

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### Page 85

Figure 8.5, Please make the  $D$  in the equation a bold upright **D**

$$\sigma_{\theta}^2 = 2 \left( \frac{D}{uL} \right) = \frac{1}{N}$$

to

$$\sigma_{\theta}^2 = 2 \left( \frac{\mathbf{D}}{uL} \right) = \frac{1}{N}$$

### Page 85

At the bottom of page 85, in the reference, please add CES 17 576  
“For large deviation from plug flow, see Levenspiel CES 17 576 (1962)”

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## Chapter 12 Meandering Flow and Lateral Dispersion

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### Page 130

The equation 12.4 in page 130 is erroneous. We have corrected it to make it appear as follows:

$$\overline{C_i^2} = \int_{t_1}^{t_2} \frac{C_i^2 dt}{t_2 - t_1} \quad i = A, B, D.$$

### Page 131

In the last sentence tracaer is misspelled. It should be tracer.

### Page 133

In equation 12.16 remove this '2'

$$V[C_m] = 2(0.6727) - 2(0.7854) = 0.56 \text{ cm}^2$$

to

$$V[C_m] = 2(0.6727) - (0.7854) = 0.56 \text{ cm}^2$$

In equation 12.17 the last numeral should be = 0.056 NOT 0.56.

$$\mathbf{D}_d = \mathbf{V}[C_d] \cdot \frac{u}{z} = 0.2254 \text{ cm}^2 \left( \frac{20}{80} \right) = 0.56 \frac{\text{cm}^2}{\text{s}}$$

to

$$\mathbf{D}_d = \mathbf{V}[C_d] \cdot \frac{u}{z} = 0.2254 \text{ cm}^2 \left( \frac{20}{80} \right) = 0.056 \frac{\text{cm}^2}{\text{s}}$$