Scalar concentration measurements in liquid-phase flows with pulsed lasers

Jerry W. Shan, Daniel B. Lang, Paul E. Dimotakis

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Exp Fluids (2004) 36:268–273

Due to an unfortunate error some of the corrections marked in the proof have not been carried out accurately. We regret this and herewith publish the correct information.

1. Last sentence of section 2 Optics and instrumentation:

For instance, a light sheet formed by spreading a 250 mJ, 6 ns laser pulse to a width of 1.0 m and a thickness of 0.2 mm, has an instantaneous power density of the order $2 \times 10^{11} \text{ W/m}^2$.

2. Correct Eqs. 6 and 17:

$$\frac{\partial}{\partial I_L} I_F(I_L; C) = \left[a(I_L; C) + \frac{\partial}{\partial I_L} a(I_L; C) I_L \right] C. \quad (6)$$

$$\frac{C(x, y, t)}{C_{\text{ref}}} = \frac{I_F(x, y, t) - \langle I_{F, \text{back}}(x, y) \rangle}{\langle I_{F, \text{ref}}(x, y) \rangle - \langle I_{F, \text{back}}(x, y) \rangle}. \quad (17)$$

3. The third-last sentence of section 5 Conclusion:

Despite this fluorescence saturation, the fluorescence intensity increases linearly with dye concentration for $0.1 \times 10^{-6} \leq C \leq 1.0 \times 10^{-6} \text{ M}$.

Published online: 24 June 2004

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The online version of the original article can be found at <http://dx.doi.org/10.1007/s00348-003-0717-7>

J. W. Shan (✉), D. B. Lang, P. E. Dimotakis
Graduate Aeronautical Laboratories,
California Institute of Technology, Pasadena,
CA 91125, USA
E-mail: jshan@jove.rutgers.edu

Present address: J. W. Shan
Department of Mechanical and Aerospace Engineering,
Rutgers—The State University of New Jersey,
Piscataway, NJ 08854, USA