

ERRATUM

Koji Iwano, Naohisa Takagaki, Ryoichi Kurose and Satoru Komori. 2013. Mass transfer velocity across the breaking air–water interface at extremely high wind speeds. *Tellus B* 2013, **65**, 21341, <http://dx.doi.org/10.3402/tellusb.v65i0.21341>

Three velocities of  $u^*$ ,  $U_{10}$  and  $U_\infty$  were mistakenly over-estimated by 9 ~ 19% in the evasion experiments. The mass transfer velocity  $k_L$  and correct velocities listed in Table 1 should be used in all figures excluding figures 1 and 7. The correct correlations of eqs. (9), (10) and (11) between velocities and mass transfer velocity should be replaced by:

$$k_L = \begin{cases} 76.94u^* & (u^* < 1.70) \\ 21.62u^{*3.4} & (u^* \geq 1.70) \end{cases}, \tag{9}$$

$$k_L = \begin{cases} 1.61U_{10}^{1.25} & (U_{10} < 33.6) \\ 8.43 \times 10^{-4}U_{10}^{3.4} & (U_{10} \geq 33.6) \end{cases}, \tag{10}$$

$$k_L = \begin{cases} 1.54U_\infty^{1.5} & (U_\infty < 19.3) \\ 4.17 \times 10^{-2}U_\infty^{2.72} & (U_\infty \geq 19.3) \end{cases}. \tag{11}$$

Eventually, the correlation between  $k_L$  and  $U_\infty$  almost corresponds to the correlation curve of Wanninkhof and McGillis (1999) at high wind speeds as shown in the correct figure 10.

Table 1. Mass transfer velocity and correct velocities

| $u^*$ (m/s) | $U_{10}$ (m/s) | $U_\infty$ (m/s) | $k_L$ (cm/h) |
|-------------|----------------|------------------|--------------|
| 0.149       | 4.79           | 3.81             | 11.0         |
| 0.299       | 8.38           | 6.07             | 21.8         |
| 0.487       | 12.4           | 8.40             | 31.9         |
| 0.704       | 16.6           | 10.7             | 47.8         |
| 0.967       | 21.4           | 13.3             | 69.8         |
| 1.59        | 31.9           | 18.5             | 138          |
| 2.01        | 39.8           | 23.9             | 234          |
| 2.41        | 47.7           | 29.9             | 425          |
| 3.02        | 59.7           | 39.6             | 923          |

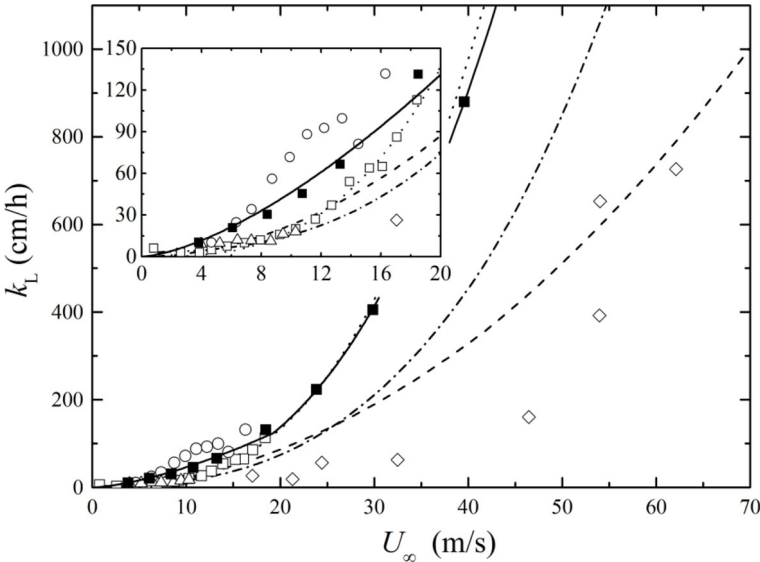


Fig. 10. Comparison of  $k_L$  against  $U_\infty$  between laboratory and field measurements. Symbols and lines as in Fig. 8. A solid line shows the correct correlation curve of eq. (11) normalized to  $Sc = 660$  for the present laboratory measurements.