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Addition/Correction

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Correction to "A High-Pressure Quartz Spring Method for Measuring Solubility and Diffusivity of CO_2 in Ionic Liquids"

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Page 3927: We published a paper entitled "A High-Pressure Quartz Spring Method for Measuring Solubility and Diffusivity of CO_2 in Ionic Liquids" in *Industrial & Engineering Chemistry Research*. For the calculation method of solubility, we wrote the buoyancy force as

$$F_{buo} = \rho g(V_{sample} + V_{basket} + V_{spring})$$

where ρ is the density of CO_2 that can be calculated at any temperature and pressure, V_{sample} the volume of sample, V_{basket} the volume of the basket, and V_{spring} the volume of the spring. But the correct form of this equation (we actually used this correct equation to obtain all the solubility and diffusivity data in the paper) should be

$$F_{buo} = \rho g(V_{sample} + V_{basket} + V'_{spring})$$

where V'_{spring} is the volume of spring contributed to the buoyancy force. Because the spring cannot be completely homogeneous with the same spring ends, it varies with different quartz springs. Therefore, for a given basket and spring, blank experiments in argon without loading sample in the basket should be implemented to determine the quantity (V_{basket} + V'_{spring}) when using the equation. As an example, we separately measured (V_{basket} + V'_{spring}), V_{basket}, and V_{spring} for a typical spring; a value of $V'_{spring} = 0.488V_{spring}$ was found.

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