

# A combined experimental and theoretical study of radon solubility in fat and water

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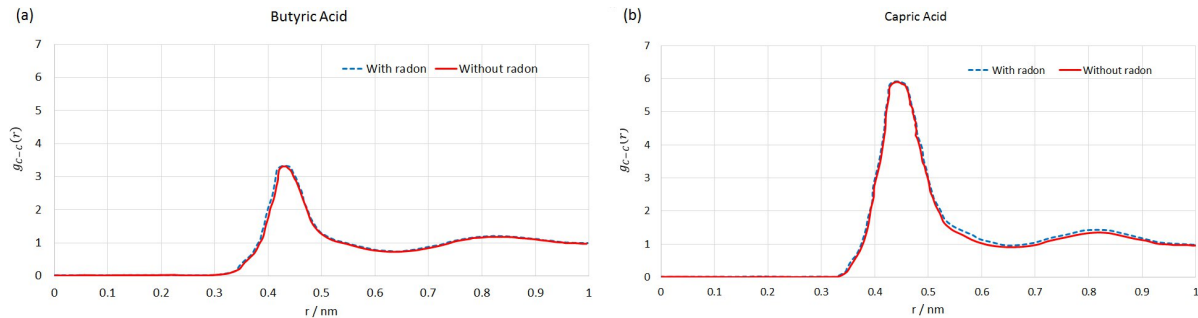
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In this supplementary information, we provide calculated diffusion coefficients of radon in different liquids. Additionally, we added the local structure of the first carbon atom in fatty acids before and after radon accumulation.

Systems	Diffusion ( $\text{m}^2 \cdot \text{s}$ )
Water $Q_+$	$1.3 \cdot 10^{-9}$
Water $Q_0$	$1.7 \cdot 10^{-9}$
Water $Q_-$	$5 \cdot 10^{-9}$
$\text{C}_6\text{H}_{14}$	$6.7 \cdot 10^{-9}$
Rn	$1.10 \cdot 10^{-5}$

**Table S 1.** Diffusion coefficients of one radon atom in the different liquids or in bulk radon. The simulations have been performed at normal pressure  $p = 1$  bar and room temperature  $T = 298$  K.



**Figure S 1.** (a) Radial distribution function of the first carbon atom of butyric acid (a) and capric acid (b). The solid lines correspond to the case in which the liquid is simulated without radon and the dotted lines correspond to the liquid after radon accumulation.