

## CORRECTION

[View Article Online](#)  
[View Journal](#) | [View Issue](#)


Cite this: *Food Funct.*, 2021, **12**, 12826

## Correction: Nutritional targeting modification of silkworm pupae oil catalyzed by a smart hydrogel immobilized lipase

Jin-Zheng Wang,<sup>a</sup> Cheng-Kun Wu,<sup>a</sup> Cheng-Hai Yan,<sup>a</sup> Huan Chen,<sup>a</sup> Shuai You,<sup>a,b</sup> Sheng Sheng,<sup>a,b</sup> Fu-An Wu<sup>a,b</sup> and Jun Wang<sup>\*a,b,c</sup>

DOI: 10.1039/d1fo90112e  
[rsc.li/food-function](https://rsc.li/food-function)

Correction for 'Nutritional targeting modification of silkworm pupae oil catalyzed by a smart hydrogel immobilized lipase' by Jin-Zheng Wang *et al.*, *Food Funct.*, 2021, **12**, 6240–6253, DOI: 10.1039/D1FO00913C.

The authors regret a calculation error in the reaction time in the original article. The correct reaction time is 1.67 min.

Consequently, Table 1 and sections of the text in the manuscript should be adjusted according to this change, and these are detailed below.

The correct version of Table 1 is presented below.

**Table 1** Production of SLs by different enzymatic transesterification systems

Reactor type	Conditions					Palmitic acid at <i>sn</i> -1,3 (%)	UFAs at <i>sn</i> -1,3 (%)	Lipase	Reuse time (h)	Ref.
	Substrate	Substrate ratio	Flow rate ( $\mu\text{L min}^{-1}$ )	Reaction time	Temperature ( $^{\circ}\text{C}$ )					
Shaker bath	SPO : oleic acid	1 : 5	—	3 h	60	16.43	79.8	Lipozyme RM IM (Lipase from <i>Rhizomucor miehei</i> )	—	11
Microwave enhanced reactor	SPO : oleic acid	1 : 5	—	1 h	60	28.35 $\pm$ 3.13	72.87 $\pm$ 1.64		—	12
Packed bed microreactor <sup>a</sup>	Tripalmitin : PUFAs	1 : 7	2	2.5 h	60	18.2 $\pm$ 0.7	81.4		22.5	39
Packed bed microreactor <sup>b</sup>	MSO <sup>d</sup> : EALA <sup>e</sup>	1 : 5	2	2.5 h	50	10.3 $\pm$ 0.10	91.6		22.5	40
Microreactor <sup>c</sup>	SPO : oleic acid	1 : 8	10	1.67 min	60	17.35 $\pm$ 2.96	82.65 $\pm$ 2.96	Lipase from <i>Aspergillus niger</i>	6 <sup>f</sup>	This study

<sup>a</sup> Packed bed microreactor constructed with stainless steel and glass plates. <sup>b</sup> Packed bed microreactor constructed with silica gel plates. <sup>c</sup> Microreactor constructed with two glass plates. <sup>d</sup> MSO: mulberry seed oil. <sup>e</sup> EALA: ethyl alpha-linolenic acid. <sup>f</sup> After 6 h of continuous use, it needs to be placed at a low temperature to release the adsorbed lipases, and the lipase solution (5 mg mL<sup>-1</sup>) should be pumped into microchannel (4  $\mu\text{L min}^{-1}$ ) at room temperature for 30 min.

The sentence in the Abstract beginning "The relative content of..." should be correctly given as "The relative content of "OOO" and "OPO" type triglycerides was increased by 49.48% and 107.67%, respectively, and that of palmitic acid at *sn*-1,3 was decreased by 49.61% in 1.67 min".

<sup>a</sup>Jiangsu Key Laboratory Sericultural Biology and Biotechnology, School of Biotechnology, Jiangsu University of Science and Technology, Zhenjiang, Jiangsu 212100, China. E-mail: wangjun@just.edu.cn; Fax: +86-511-84448290; Tel: +86-511-84448290

<sup>b</sup>Attached Silkworm Medicine Factory, Sericultural Research Institute, Chinese Academy of Agricultural Sciences, Zhenjiang, Jiangsu 212100, China

<sup>c</sup>Key Laboratory of Silkworm and Mulberry Genetic Improvement, Ministry of Agricultural and Rural Affairs, Sericultural Research Institute, Chinese Academy of Agricultural Sciences, Zhenjiang, Jiangsu 212100, China



The sentence in section 3.4 beginning “According to the size of...” should be correctly given as “According to the size of the microchannel and the flow rate under the optimal conditions, it could be calculated that the time for the substrate solution to pass through the immobilized lipase was 1.67 min, which was reduced by 99.07%, 97.22%, and 98.89% compared with the shaker bath, microwave enhanced reactor, and packed bed microreactor, respectively”.

In the conclusions, the sentence beginning “Due to this immobilization method...” should be given as “Due to this immobilization method, the relative content of UFAs in structured lipids can be increased to 80% and the relative content of palmitic acid at the *sn*-1,3 position was decreased by 49.61% in 1.67 min”. The sentence beginning “The microreactor significantly strengthens...” should be “The microreactor significantly strengthens the lipase-catalyzed preparation of structured lipids, and the reaction time was shortened by 97.22% of the microwave reactor and 99.07% of the conventional reactor”. The sentence beginning “According to the results of...” should be “According to the results of the *in vitro* digestion model, the FA release rate was increased by 22.07% as a result of the 1.67 min transesterification reaction, which indicated the improvement of nutritional function”. The sentence beginning “Thus, this microchannel reactor...” should be “Thus, this microchannel reactor with photo-immobilized lipase has successfully improved the digestibility of SPO *via* a 1.67 min reaction, which shows a reference value for functionalized insect oil improvement and utilization”.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

