

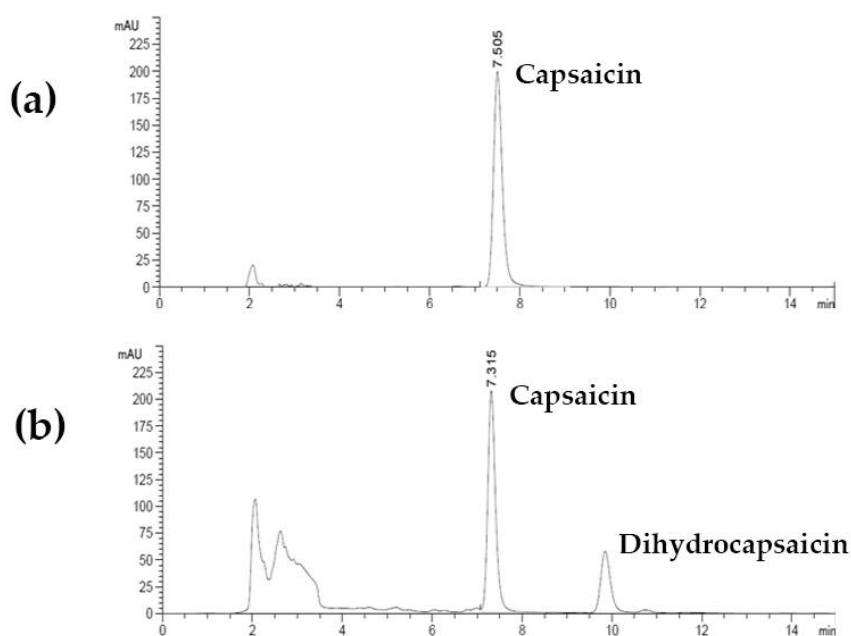
Article

# Enhanced Transdermal Delivery of Concentrated Capsaicin from Chili Extract-Loaded Lipid Nanoparticles with Reduced Skin Irritation

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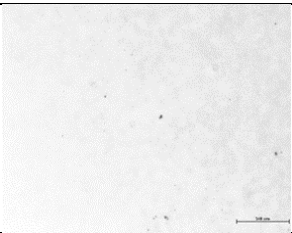
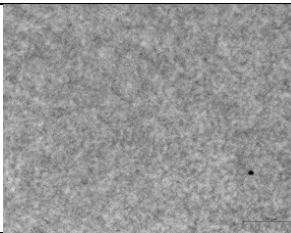
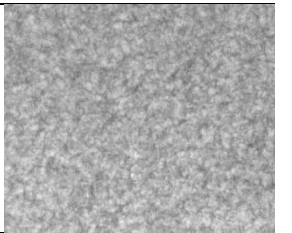
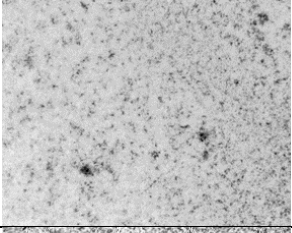
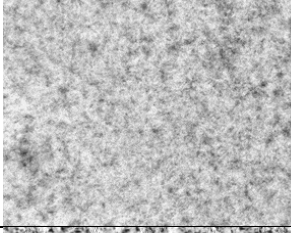
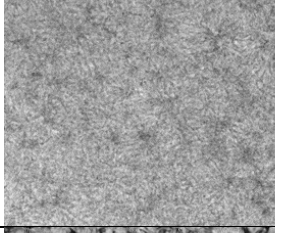
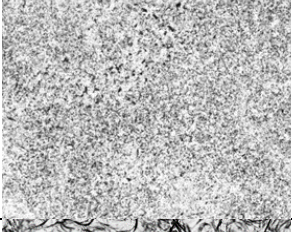
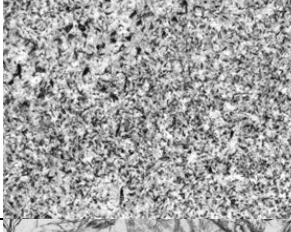
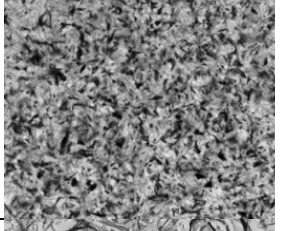



## Capsaicin contents in chili extract

The high-performance liquid chromatography (HPLC) chromatograms of capsaicin and dihydrocapsaicin show the retention times of 7.315 and 9.932 min, respectively.



**Figure S1.** Representative high-performance liquid chromatography (HPLC) chromatograms of capsaicin (a) and chili extract (b).

**Table S1.** The solidified inner crystal patterns of each solid lipid.

<b>Solid Lipid</b>	<b>m.p. (°C)</b>	<b>rHLB</b>	<b>5X</b>	<b>10X</b>	<b>20X</b>
Glyceryl behenate	69.74	2			
Glyceryl monostearate	55	3.8			
Stearyl alcohol	59.8	15.5			
Cetyl alcohol	49.3	15.5			

**Table S2.** Regression coefficient ( $R^2$ ) values of the kinetic models.

<b>Formulation</b>	<b>Zero-order</b>	<b>First-order</b>	<b>Higuchi</b>
Capsaicin	0.9952	0.9201	0.9754
Chili extract	0.9918	0.8893	0.9786
SLN chili	0.9952	0.8459	0.9818
NLC chili	0.9941	0.8346	0.9841