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ข้อความแห่งการริเริ่ม

- 1) ข้อพิสูจน์ของการบ่งชี้เอกลักษณ์ของกลิ่นหลักจากดอกจำปี (*Michelia alba* D.C.) คือ linalool, verbenone, และ 2-methyl butanoic acid ตามลำดับการรับรู้ทางประสาทสัมผัส
- 2) การกักเก็บสารสกัดจากดอกจำปี *Michelia alba* D.C. ด้วยแป้งคัดแปร octenyl succinic anhydride แสดงคุณสมบัติในการควบคุมการปลดปล่อยภายใต้สภาวะน้ำลายเทียม โดยมีค่าคงที่อัตราการปลดปล่อยของ linalool ซึ่งที่สุด รองลงมาคือ verbenone และ 2-methyl butanoic acid ตามลำดับ
- 3) การกักเก็บผงกักเก็บกลิ่นจากดอกจำปีในระบบกักเก็บแบบหลายแกนโดยใช้ระบบของ gelatin-gum arabic แสดงคุณสมบัติในการควบคุมการปลดปล่อยกลิ่นภายใต้สภาวะความชื้นและอุณหภูมิสูง ก่อนที่จะสามารถปลดปล่อยกลิ่นที่แตกต่างออกมาภายใต้สภาวะน้ำลายเทียม
- 4) การประยุกต์ใช้ผงกักเก็บกลิ่นระบบหลายแกนในผลิตภัณฑ์ขนม น้ำดอกไม้แสดงให้เห็นว่า ผู้บริโภคชอบผลิตภัณฑ์ที่มีปริมาณของผงกักเก็บกลิ่นร้อยละ 1 มากที่สุด โดยมีผลิตภัณฑ์ที่มีคุณสมบัติที่สามารถควบคุมการปลดปล่อยกลิ่นรสใบเตยและกลิ่นรสดอกจำปีได้ตามที่ต้องการ

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STATEMENTS OF ORIGINALITY

1. Proof of identification on *Michelia alba* D.C. main aroma as linalool, verbenone, and 2-methyl butanoic acid as the order of perception.
2. The encapsulation of *Michelia alba* D.C. extract with octenyl succinic anhydride starch showed controlled release property under artificial saliva condition with the release rate constant of linalool being the slowest, followed by verbenone and 2-methyl butanoic acid.
3. The encapsulation of *Michelia alba* D.C. flavor powder as multi-core encapsulated powder using gelatin-gum arabic system showed controlled release property under high moisture and temperature prior to release of different flavor in artificial saliva condition.
4. The application of multi-core encapsulated flavor powder on Nam Dok Mai dessert revealed that Nam Dok Mai dessert contained 1% w/w of multi-core encapsulated flavor powder obtained the highest sensory preference score with controlled release of pandan flavor and delayed white champaca flavor as expected.

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