

The study on the release of Fragrant Oil from the synthesized Fragrant Oil (FO)/melamine-formaldehyde (MF) nano-particle of core-shell structure as the added ratio of core and shell material

박재중, 박희영, 정세민¹, 황기섭², 권혁준, 이준영^{2,†}
연세대학교; ¹성균관대학교; ²한국생산기술연구원

Fragrant oil Oil (FO) has being used to the air freshener, insect repellent, etc. FO of liquid phase was uncomfortable for using at various field. To improve for these inconvenience, the nano-particle of core-shell structure was synthesized with FO as core and MF as shell. The synthesis of FO/MF nano-particle as core/shell structure was used with FO, melamine, formaldehyde, sodium lauryl sulfate (SIS), tween 20 and arabic gum. The morphology, thermal stability of these nano-particle was analyzed by FE-SEM and TGA, respectively. The release property of FO from these nano-particle was analyzed by TGA at 30 °C, 70 °C and 120 °C, respectively. Then the release velocity were calculated by using with the reduced weight of these nano-particle as each temperature.