

Development of a Row-Carbon Omiphobic Nannoparticle and its Application in Food Packaging Paper to Subsitute for Harmful Suvstances

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C8 fluoride compounds(C8FC) with more than 8 carbon atoms have excellent omniphobic performance and many advantages. Therefore, there were widely used as functional coating material for food packaging technology. However, C8FC has been subject to environmental regulation due to toxic characteristic. Studies of case, there functional material was polymerized with row carbon fluorine compounds(RCFC) and applied to food packaging paper. The food packaging paper was coated with and without RCFC and stored over 3 days at 25 °C in desiccator for food application test. Omniphobicity of paper was confirmed through contact angle analysis during 3days. The food packaging paper coated with RCFC showed a stronger resistant of the water and oil than the control. The contact angle for water and oil on the coated paper with the RCFC were significantly higher then C8FC. These results demonstrated that the developed RCFC as substitutable for C8FC. Therefore, our RCFC can be used as an active food packaging paper for food quality preservation and preventive action for pollution of consumer.