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Oxidation of Polyunsaturated Acylglycerol Mixed with Saturated or Unsaturated Acylglycerol

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The oxidation process of a polyunsaturated acylglycerol mixed with a saturated or unsaturated acylglycerol was measured at 65°C and *ca*. 0% relative humidity. When two polyunsaturated acylglycerols were mixed, their oxidation processes were expressed by the kinetic model in which one acylglycerol acts as a diluent for another acylglycerol, and the oxidation product of the acylglycerol participates in the oxidation of another acylglycerol. However, the oxidation process of 1-monolinolein mixed with a saturated or monounsaturated acylglycerol was not expressed by the model but obeyed the kinetics of an autocatalytic type. The rate constant in the mixed system was greater than the constant which was predicted under the assumption that the saturated or monounsaturated acylglycerol merely acted as a diluent.

Keywords: polyunsaturated acylglycerol, oxidation, kinetics



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