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胰蛋白酶水解酪蛋白制备活性多肽的指数形式动力学新模型

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摘要 The kinetics of casein tryptic hydrolysis to prepare active peptides was investigated. Taking into account the reaction mechanism including single substrate hydrolysis, irreversible enzyme inactivation, and substrate inhibition, a set of exponential equations was established to characterize the enzymatic hydrolysis curves. The verification was carried out by a series of experimental results and indicated that the average regressive error was less than 5%. According to the proposed kinetic model, the kinetic constants and thermodynamic constants of the reaction system were also calculated.

关键词 [active peptide](#) [casein](#) [hydrolysis](#) [kinetics](#) [trypsin](#)

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A Novel Exponential Kinetic Model for Casein Tryptic Hydrolysis to Prepare Active Peptides

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Abstract The kinetics of casein tryptic hydrolysis to prepare active peptides was investigated. Taking into account the reaction mechanism including single substrate hydrolysis, irreversible enzyme inactivation, and substrate inhibition, a set of exponential equations was established to characterize the enzymatic hydrolysis curves. The verification was carried out by a series of experimental results and indicated that the average regressive error was less than 5%. According to the proposed kinetic model, the kinetic constants and thermodynamic constants of the reaction system were also calculated.

Key words [active peptide](#); [casein](#); [hydrolysis](#); [kinetics](#); [trypsin](#)

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