

RESEARCH PAPERS

一水盐酸环丙沙星初级成核机理的研究

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摘要 A general expression for the relationship between induction period and supersaturation was developed based on polynuclear approach. Different mechanism of primary nucleation in solution can be illustrated by the expression. The results of induction period determined by laser scattering method shows that the crystallization of ciprofloxacin hydrochloride monohydrate in water/ethanol or aqueous solution is by the mechanism of primary nucleation followed by one-dimensional diffusion growth, and then one-dimensional continuous or "birth and spread" growth on crystal face. The growth mechanism on the crystal face is affected by temperature and solvent.

关键词 [ciprofloxacin hydrochloride monohydrate](#) [induction period](#) [primary nucleation](#) [diffusion](#) [growth](#) [continuous growth](#) ["birth and spread" growth](#)

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Studies on the Mechanism of Primary Nucleation of Ciprofloxacin Hydrochloride Monohydrate

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Abstract A general expression for the relationship between induction period and supersaturation was developed based on polynuclear approach. Different mechanism of primary nucleation in solution can be illustrated by the expression. The results of induction period determined by laser scattering method shows that the crystallization of ciprofloxacin hydrochloride monohydrate in water/ethanol or aqueous solution is by the mechanism of primary nucleation followed by one-dimensional diffusion growth, and then one-dimensional continuous or "birth and spread" growth on crystal face. The growth mechanism on the crystal face is affected by temperature and solvent.

Key words [ciprofloxacin hydrochloride monohydrate](#); [induction period](#); [primary nucleation](#); [diffusion](#) [growth](#); [continuous growth](#); ["birth and spread" growth](#)

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