

Title	Some consideration on the optimization of a chemical process
Sub Title	
Author	鈴木, 輝義(Suzuki, Teruyoshi)
Publisher	慶應義塾大学藤原記念工学部
Publication year	1965
Jtitle	Proceedings of the Fujihara Memorial Faculty of Engineering Keio University (慶應義塾大学藤原記念工学部研究報告). Vol.18, No.71 (1965.) ,p.119(55)- 119(55)
JaLC DOI	
Abstract	
Notes	Summaries of Doctor and Master Theses Master of Engineering, 1965 Instrumentation Engineering
Genre	Departmental Bulletin Paper
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=KO50001004-00180071-0055

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the Keio Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

Some Consideration on the Optimization of a Chemical Process

Teruyoshi SUZUKI*

Recently, the purpose of automatic control systems has come to the over-all optimization of the process. In this case, optimum criterion is chosen for example so that the yield of final products may be maximum and the cost of the over-all process minimum.

Described in this paper is the over-all steady state optimization of the synthetic process of ethyl acetoacetate, which is supposed to be a continuous process composed of four stages. As every manipulating-variable should be regarded as dependent each other under conditions of the over-all optimization of the process, the optimal policy of them must be decided from the over-all viewpoint. To attain this, it becomes necessary to introduce a computer to control systems. But before proceeding into computer control, we must analyze the process completely. Then, analysis, mathematical model and local optimization are made for each stage. And the policy of over-all optimization is investigated as compared with the basis of the local optimization of each process. Furthermore, the possibility of applying S. Katz's method to this model is discussed. Some results calculated are presented.

*鈴木輝義