



# Simultaneous Design and Control of Chemical Plants

By Luis Ricardez-Sandoval

VDM Verlag. Paperback. Book Condition: New. Paperback. 284 pages. Dimensions: 8.7in. x 5.9in. x 0.6in. This book presents a set of methods proposed for the simultaneous design and control of chemical processes under the effect of external perturbations and parametric uncertainties. The proposed methodologies borrow tools from robust control theory to test the process stability and to calculate bounds on the worst-case process output variability and the process constraints. Thus, the proposed methods avoid the solution of dynamic optimization problems which are computationally expensive and even prohibitive for the design and control of processes with several process units. The proposed methods were applied to a mixing tank process and to the Tennessee Eastman process. Due to the robust approach, the final design obtained by these methods may be conservative. However, the computational demand required by the present approach is several orders of magnitude lower than that required by a dynamic optimization-based methodology. Therefore, the present approach is a practical and computationally efficient tool that can be used for the simultaneous design and control of chemical plants. This item ships from multiple locations. Your book may arrive from Roseburg, OR, La Vergne, TN. Paperback.



**READ ONLINE**  
[ 2.18 MB ]

## Reviews

*This publication can be really worth a go through, and a lot better than other. It is actually written in straightforward words and phrases instead of confusing. I discovered this pdf from my dad and I suggested this publication to learn.*

-- **Jackeline Rippin**

*A high quality book and also the font employed was intriguing to read. I was able to comprehend every thing out of this created e book. You won't really feel monotony at whenever you want of the time (that's what catalogues are for concerning should you check with me).*

-- **Prof. Johnson Cole Sr.**