

Assoc. Prof. Devrim Barış Kaymak

Personal Information

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Education Information

Doctorate, Lehigh University, Kimya Mühendisliği, United States Of America 2000 - 2005

Post Graduate, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Mühendisliği (YI) (Tezli), Turkey 1998 - 2000

Under Graduate, İstanbul Teknik Üniversitesi, Kimya-Metalurji Fakültesi, Kimya Mühendisliği Bölümü, Turkey 1993 - 1998

Foreign Languages

English

Research Areas

Technical Sciences, Chemical Engineering and Technology, Process and Reactor Design, Process Control, Chemical Process System Engineering, Process Design, Basic Operations and Thermodynamics, Separation Operations

Academic Titles / Tasks

Associate Professor, Istanbul Technical University, Kimya-Metalurji, Kimya Mühendisliği, 2013 - Continues

Assistant Professor, Istanbul Technical University, Kimya-Metalurji, Kimya Mühendisliği, 2006 - 2013

Research Assistant, Istanbul Technical University, Kimya-Metalurji, Kimya Mühendisliği, 1998 - 2006

Academic and Administrative Experience

İstanbul Teknik Üniversitesi, Kimya-Metalurji Fakültesi, 2013 - 2016

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Design and control of an alternative intensified process configuration for separation of butanol-butyl acetate-methyl isobutyl ketone system**
Kaymak D. B.
CHEMICAL ENGINEERING AND PROCESSING-PROCESS INTENSIFICATION, vol.159, 2021 (Journal Indexed in SCI)
- II. **Design and Control of an Alternative Process for Biobutanol Purification from ABE Fermentation**
Kaymak D. B.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.58, no.5, pp.1957-1965, 2019 (Journal Indexed in SCI)
- III. **Design and Control of an Alternative Bioethanol Purification Process via Reactive Distillation from Fermentation Broth**
Kaymak D. B.

- INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.58, no.4, pp.1675-1685, 2019 (Journal Indexed in SCI)
- IV. **Dynamic controllability comparison of reactive distillation columns with single and double reactive sections for two-stage consecutive reactions**
Oksal İ. N. , Kaymak D. B.
Chemical Engineering Research and Design, vol.129, pp.391-402, 2018 (Journal Indexed in SCI Expanded)
- V. **Control Analysis of Alternative Design Configurations for Bioethanol Purification**
ARSLAN D. G. , Kaymak D. B.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.56, no.11, pp.3008-3016, 2017 (Journal Indexed in SCI)
- VI. **Control of a reactive distillation column with double reactive sections for two-stage consecutive reactions**
Kaymak D. B. , UNLU H., OFKELI T.
CHEMICAL ENGINEERING AND PROCESSING, vol.113, pp.86-93, 2017 (Journal Indexed in SCI)
- VII. **Design and control of distillation processes for methanol-chloroform separation**
Hosgor E., KUCUK T., Oksal İ. N. , Kaymak D. B.
COMPUTERS & CHEMICAL ENGINEERING, vol.67, pp.166-177, 2014 (Journal Indexed in SCI)
- VIII. **Plantwide Control of a Complex Process Involving a Reactive Distillation Column**
Baki R. O. , Kaymak D. B.
CHEMICAL ENGINEERING COMMUNICATIONS, vol.201, no.4, pp.466-481, 2014 (Journal Indexed in SCI)
- IX. **Control of Quaternary Reactive Distillation Columns: Effects of Number and Location of Temperature Loops**
Demirel B., Kaymak D. B.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.52, no.17, pp.5943-5950, 2013 (Journal Indexed in SCI)
- X. **Effect of Relative Volatilities on Inferential Temperature Control of Reactive Distillation Columns**
Kaymak D. B. , YILMAZ D., GURER A. Z.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.50, no.13, pp.8138-8152, 2011 (Journal Indexed in SCI)
- XI. **Inferential Temperature Control Structures for Different Types of Two-Reactant Reactive Distillation Systems**
Kaymak D. B. , YILMAZ D., GURER A. Z.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.50, no.11, pp.6777-6793, 2011 (Journal Indexed in SCI)
- XII. **Effect of Feed Tray Location on Temperature-Based Inferential Control of Double Feed Reactive Distillation Columns**
Sunar G., Kaymak D. B.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.48, no.24, pp.11071-11080, 2009 (Journal Indexed in SCI)
- XIII. **Dynamic Control of a Column/Side-Reactor Process**
Kaymak D. B. , Luyben W. L.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.47, no.22, pp.8704-8712, 2008 (Journal Indexed in SCI)
- XIV. **Quantitative comparison of dynamic controllability between a reactive distillation column and a conventional multi-unit process**
Kaymak D. B. , Luyben W. L.
COMPUTERS & CHEMICAL ENGINEERING, vol.32, no.7, pp.1456-1470, 2008 (Journal Indexed in SCI)
- XV. **Optimum design of a column/side reactor process**
Kaymak D. B. , LUYBEN W. L.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.46, no.15, pp.5175-5185, 2007 (Journal Indexed in SCI)
- XVI. **Evaluation of a two-temperature control structure for a two-reactant/two-product type of reactive distillation column**
Kaymak D. B. , LUYBEN W. L.
CHEMICAL ENGINEERING SCIENCE, vol.61, no.13, pp.4432-4450, 2006 (Journal Indexed in SCI)
- XVII. **Comparison of two types of two-temperature control structures for reactive distillation columns**
Kaymak D. B. , LUYBEN W.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.44, no.13, pp.4625-4640, 2005 (Journal Indexed in SCI)

- XVIII. **Design of distillation columns with external side reactors**
Kaymak D. B. , LUYBEN W.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.43, no.25, pp.8049-8056, 2004 (Journal Indexed in SCI)
- XIX. **Effect of the chemical equilibrium constant on the design of reactive distillation columns**
Kaymak D. B. , LUYBEN W.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.43, no.14, pp.3666-3671, 2004 (Journal Indexed in SCI)
- XX. **Effect of relative volatility on the quantitative comparison of reactive distillation and conventional multi-unit systems**
Kaymak D. B. , LUYBEN W., SMITH O.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.43, no.12, pp.3151-3162, 2004 (Journal Indexed in SCI)
- XXI. **Quantitative comparison of reactive distillation with conventional multiunit reactor/column/recycle systems for different chemical equilibrium constants**
Kaymak D. B. , LUYBEN W.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.43, no.10, pp.2493-2507, 2004 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **A novel process design for biobutanol purification from ABE fermentation**
KAYMAK D. B.
Distillation Absorption 2018, 16 - 19 September 2018, vol.69
- II. **Design and Control of a Separation Process for Bioethanol Purification by Reactive Distillation**
Kaymak D. B.
27th European Symposium on Computer-Aided Process Engineering (ESCAPE), Barcelona, Spain, 1 - 05 October 2017, pp.1075-1080
- III. **Three-Point Temperature Control of Quaternary Endothermic Reactive Distillation Columns**
KAYMAK D. B.
10th World Congress of Chemical Engineering, 1 - 05 October 2017
- IV. **Controllability of Reactive Distillation Columns with Single and Double Reactive Sections for Separation of Two Stage Consecutive Reactions**
KAYMAK D. B. , OKSAL I.
2016 AIChE Annual Meeting, 13 November - 18 December 2016
- V. **Control of a Reactive Distillation Column with Double Reactive Sections for Two stage Consecutive Reactions**
KAYMAK D. B. , Ünlü H., Tuğçenaz Ö.
5th European Process Intensification Conference, France, 27 September - 01 October 2015

Supported Projects

- Kaymak D. B. , Yalçın M., Project Supported by Higher Education Institutions, Aseton-bütanol-etanol fermantasyonundan biyobütanol saflaştırmak için yeni bir proses tasarımı ve kontrolü, 2018 - 2019
- Kaymak D. B. , Project Supported by Higher Education Institutions, Biyoetanol saflaştırma için kullanılan reaktif distilasyon kolonunun tasarım ve kontrolü, 2015 - 2019
- Kaymak D. B. , Project Supported by Higher Education Institutions, Controllability of Reactive Distillation Columns with Single and Double Reactive Sections for Separation of Two-Stage Consecutive Reactions, 2016 - 2018
- Kaymak D. B. , Project Supported by Higher Education Institutions, CONTROL OF A REACTIVE DISTILLATION COLUMN WITH DOUBLE REACTIVE SECTIONS FOR TWO-STAGE CONSECUTIVE REACTIONS, 2015 - 2018
- Kaymak D. B. , Project Supported by Higher Education Institutions, Metanol kloroform karışımını ayırmak için basınç salımlı distilasyon sisteminin kontrolü, 2013 - 2018
- Kaymak D. B. , Project Supported by Higher Education Institutions, Kloroform-Matanol Karışımı için Ekstraktif Distilasyon

ve Basın Salınlımlı Distilasyon Sistemlerinin Karşılaştırılması, 2012 - 2018

Kaymak D. B. , Project Supported by Higher Education Institutions, Üçlü Reaktif Distilasyon Kolonları için Tasarım Değişkenleri ile Dinamik Kontrolün Etkileşimi, 2011 - 2018

Kaymak D. B. , Project Supported by Higher Education Institutions, GENEL BİR REAKTİF DİSTİLYASYON KOLONUNDA PROSES TASARIMININ DİNAMİK KONTROL EDİLEBİLİRLİĞİNE ETKİSİ, 2009 - 2018

Kaymak D. B. , Project Supported by Higher Education Institutions, Kolon/Yan Reaktör Prosesinin Dinamik Kontrolü, 2008 - 2018

Kaymak D. B. , Project Supported by Higher Education Institutions, Harici Yan reaktörlü Distilasyon Kolonunun Optimum Tasarımı, 2007 - 2018

Kaymak D. B. , Project Supported by Higher Education Institutions, İki reaktan/iki ürün tipi reaktif distilasyon kolonu için çift-sıcaklık kontrolü yapısının değerlendirilmesi, 2005 - 2018

Kaymak D. B. , Project Supported by Higher Education Institutions, Kloroform-Metanol Karışımı için Basınç Salınlımlı Distilasyon Sisteminin Tasarım ve Kontrolü, 2011 - 2016

Kaymak D. B. , Project Supported by Higher Education Institutions, Reaktif Distilasyon Kolonu İçeren Fabrika Ölçekli Proseslerin Tasarım ve Kontrolü, 2007 - 2015

Citations

Total Citations (WOS):352

h-index (WOS):10