

Publikationsbericht 2007

Institut für Automatisierungstechnik



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1. Leitung

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Hon. Prof. Dr.-Ing. Ulrich Jumar

3. Veröffentlichungen

Originalartikel in begutachteten internationalen Zeitschriften

Flockerzi, D. ; Bohmann, A. ; Kienle, Achim

On the existence and computation of reaction invariants

In: Chemical engineering science. - Amsterdam: Elsevier, Bd. 62.2007, 17, S. 4811-4816; [Link unter URL](#)

[Imp.fact.: 1.629]

Gangadwala, J. ; Radulescu, G. ; Kienle, Achim; Sundmacher, Kai

Computer aided design of reactive distillation processes for the treatment of waste waters polluted with acetic acid

In: Computers & chemical engineering. - Amsterdam [u.a.]: Elsevier, Bd. 31.2007, 11, S. 1535-1547; [Link unter URL](#)

[Imp.fact.: 1.404]

Gangadwala, Jignesh; Haus, Utz-Uwe; Jach, Matthias; Kienle, Achim; Michaels, Dennis; Weismantel, Robert

Global analysis of combined reaction distillation process

In: Computers & chemical engineering. - Amsterdam [u.a.]: Elsevier, Bd. 32.2007, 1/2, S. 343-355; [Link unter URL](#)

[Imp.fact.: 1.404]

Gangadwala, Jignesh; Kienle, Achim

MINLP optimization of butyl acetate synthesis

In: Chemical engineering and processing. - Lausanne: Elsevier, Bd. 46.2007, 2, S. 107-118; [Link unter URL](#)

[Imp.fact.: 1.159]

Kaspereit, Malte; Seidel-Morgenstern, Andreas; Kienle, Achim

Design of simulated moving bed processes under reduced purity requirements

In: Journal of chromatography. - Amsterdam [u.a.]: Elsevier, Bd. 1162.2007, 1, S. 2-13; [Link unter URL](#)

[Imp.fact.: 3.554]

Klose, Frank; Wolff, Tanja; Lorenz, Heike; Seidel-Morgenstern, Andreas; Suchorski, Yuri; Piorkowska, Monika; Weiß, Helmut

Active species on G-alumina-supported vanadia catalysts - nature and reducibility

In: Journal of catalysis. - San Diego, Calif. : Elsevier, Bd. 247.2007, 2, S. 176-193; [Link unter URL](#)

[Imp.fact.: 4.780]

Krasnyk, M. ; Ginkel, M. ; Mangold, M. ; Kienle, Achim

Numerical analysis of higher order singularities in chemical process models

In: Computers & chemical engineering. - Amsterdam [u.a.]: Elsevier, Bd. 31.2007, 9, S. 1100-1110; [Link unter URL](#)

[Imp.fact.: 1.404]

Kulkarni, Amol A. ; Zeyer, Klaus-Peter; Jacobs, Thomas; Kienle, Achim

Miniaturized systems for homogeneously and heterogeneously catalyzed liquid-phase esterification reaction

In: Industrial & engineering chemistry research. - Washington, DC: American Chemical Society, Bd. 46.2007, 16, S.

5271-5277; [Link unter URL](#)

[Imp.fact.: 1.518]

Radulescu, Gabriel; Paraschiv, Nicolae; Kienle, Achim

An original approach for the dynamic simulation of a crude oil distillation plant - 2. setting-up and testing the simulator

In: Revista de chimie. - Bucuresti, Bd. 58.2007, 3, S. 349-354

[Imp.fact.: 0.287]

Sainio, T. ; Kaspereit, M. ; Kienle, Achim; Seidel-Morgenstern, Andreas

Thermal effects in reactive liquid chromatography

In: Chemical engineering science. - Amsterdam: Elsevier, Bd. 62.2007, 18/20, S. 5674-5681; [Link unter URL](#)

[Imp.fact.: 1.629]

Zeyer, K.-P. ; Kulkarni, A. A. ; Kienle, Achim; Kumar, M. Vasudeva; Pushpavanam, S.

Nonlinear behavior of reactor-separator networks - influence of the energy balance formulation

In: Industrial & engineering chemistry research. - Washington, DC: American Chemical Society, Bd. 46.2007, 4, S. 1197-1207; [Link unter URL](#)

[Imp.fact.: 1.518]

Originalartikel in begutachteten zeitschriftenartigen Reihen

Jacobs, Thomas; Gomide, Andreza; Kähne, Thilo; Kienle, Achim; Naumann, Michael; Hauptmann, Peter

Micro fluidic biosensor system based on quartz crystal resonators for fast online adherent cell proliferation and stimulation analysis

In: IEEE sensors 2007 conference, S. 720-723

Wissenschaftliche Monografien

Diedrich, Christian

Profibus PA - fieldbus process automation technology. - BeiBei District, Chonqing: Southwest China Normal University Press; 334 S., 2007

Herausgeberschaften

Sundmacher, Kai; Kienle, Achim; Pesch, Hans J. ; Berndt, Joachim F. ; Huppmann, Gerhard

Molten carbonate fuel cells - modeling, analysis, simulation and control. - [Link unter URL](#); Weinheim: WILEY-VCH; XVI, 243 S.: Ill., graph. Darst.; 240 mm x 170 mm, 2007

[Literaturangaben]

Buchbeiträge

Gangadwala, Jignesh; Radulescu, Gabriel; Paraschiv, Nicolae; Kienle, Achim; Sundmacher, Kai

Dynamics of reactive distillation processes with potential liquid phase splitting

In: European Symposium on Computer Aided Process Engineering <17, 2007, Bucuresti>: 17th European Symposium on Computer-Aided Process Engineering. - Amsterdam [u.a.]: Elsevier, S. 213-218; Computer-aided chemical engineering; 24

[European Symposium on Computer-Aided Process Engineering; 17 (Bucharest): 2007.05.27-30]

Grötsch, Markus; Mangold, Michael; Sheng, Ming; Kienle, Achim

Model reduction and state estimation

In: Molten carbonate fuel cells. - Weinheim: WILEY-VCH, S. 185-199, 2007

Jacobs, T.; Gomide, A.; Kaspereit, M.; Zeyer, K.-P.; Kienle, Achim; Hauptmann, Peter

In-line analysis of chemical reactions in micro reactors using thermal mass flow sensors

In: EUROCON 2007. - Piscataway NJ: IEEE Operations Center, S. 571

[EUROCON 2007 - the International Conference on Computer as a Tool; (Warsaw): 2007.09.09-12]

Krasnyk, Michael; Mangold, Michael; Kienle, Achim; Sundmacher, Kai

Hot spot formation and steady state multiplicities

In: Molten carbonate fuel cells. - Weinheim: WILEY-VCH, S. 141-162, 2007

Mühlhause, Mathias; Diedrich, Christian; Riedl, Matthias; Schmidt, Daniel

Formalised specification of a test tool for safety related communication

In: ETFA 2007, insges. 8 S.

[IEEE Conference on Emerging Technologies and Factory Automation; 12 (Patras, Greece): 2007.09.25-28]

Palis, Stefan; Stamann, Mario; Schallschmidt, Thomas

Nonlinear adaptive control of magnetic bearings

In: EPE 2007. - Brussels, Belgium: EPE Association, insges. 1 S.

[European Conference on Power Electronics and Applications; 12 (Aalborg): 2007.09.02-05]

Sommer, Steffen; Raisch, Jörg; Sundmacher, Kai

Start-up of empty cold reactive distillation columns by means of feedback control strategies - the discontinuous stage

In: Conference CD // European Congress of Chemical Engineering - 6. - Lyngby: Techn. Univ. of Denmark, Dep. of Chemical Engineering, insges. 21 S., 2007

[European Congress of Chemical Engineering; 6 (Copenhagen): 2007.09.16-21]

Zeyer, Klaus-Peter; Kulkarni, Amol A.; Kienle, Achim; Mantravadi, Vasudeva Kumar; Subramanian, Pushpavanam

Nonlinear behavior of reactor-separator and reactor-destillation networks - influence of the energy balance formulation

In: European Symposium on Computer Aided Process Engineering <17, 2007, Bucuresti>: 17th European Symposium on Computer-Aided Process Engineering. - Amsterdam [u.a.]: Elsevier, S. 425-430; Computer-aided chemical engineering; 24

[European Symposium on Computer-Aided Process Engineering; 17 (Bucharest): 2007.05.27-30]

Andere Materialien

Palis, Stefan; Stamann, Mario; Schallschmidt, Thomas

Adaptive control of a 5 DOF magnetic bearing

In: Problemy avtomatizirovannogo elektroprivoda. - Dneprodzerzhinsk: DGTU, S. 315-317; Sbornik naucnykh trudov Dneprodzerzhinskogo gosudarstvennogo technicheskogo universiteta; 2007

Dissertationen

Schmidt, Christoph

Durchgängiger Entstehungsprozess einer individuellen Fahrzeugprüfung mit formalisierten Modellen und Methoden.
- Zugl.: Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2007; Göttingen: Sierke Verl.; XII,
203 S.: graph. Darst.