

Massimo Morbidelli

List of Publications

Books

1. D. Pfister, L. Nicoud and M. Morbidelli, *Continuous Biopharmaceutical Processes* 2018, New York, USA: Cambridge University Press. 350.
2. M. Morbidelli, A. Gavriilidis, and A. Varma, *Optimal distribution of catalyst in pellets, reactors, and membranes* 2001, New York, USA: Cambridge University Press. 227.
3. A. Varma, M. Morbidelli, and H. Wu, *Parametric sensitivity in chemical systems* 1999, New York, USA: Cambridge Univ Press. 342.
4. A. Varma and M. Morbidelli, *Mathematical methods in chemical engineering* 1997, New York, USA: Oxford University Press. 686.
5. S. Carrà and M. Morbidelli, *Chimica fisica applicata* 1983, Milano, Italy: Hoepli.

Scientific Articles and Reviews

1. Narayanan, H., Sokolov, M., Morbidelli, M., Butté, A., *A new generation of predictive models—the added value of hybrid models for manufacturing processes of therapeutic proteins*, Biotechnology and Bioengineering, 2019
2. Wolf, M. K., Pechlaner, A., Lorenz, V., Karst, D. J., Souquet, J., Broly, H., Morbidelli, M., *A two-step procedure for the design of perfusion bioreactors*. Biochemical Engineering Journal, 2019, 107295.
3. Hajduk, J., Wolf, M., Steinhoff, R., Karst, D., Souquet, J., Broly, H., Morbidelli, M., Zenobi, R., *Monitoring of antibody glycosylation pattern based on microarray MALDI-TOF mass spectrometry*, Journal of biotechnology, 2019
4. Narayanan, H., Sokolov, M., Butté, A., Morbidelli, M., *Decision Tree–PLS (DT-PLS) algorithm for the development of process-specific local prediction models*, Biotechnology progress, 2019, e2818
5. Feidl, F., Garbellini, S., Vogg, S., Sokolov, M., Souquet, J., Broly, H., Butté, A., Morbidelli, M., *A new flow cell and chemometric protocol for implementing in-line Raman spectroscopy in chromatography*, Biotechnology progress, 2019
6. Lu, J., Caimi, S., Erfle, P., Wu, B., Cingolani, A., Luo, Y., Dietzel, A., Luo, P., Wu, H., Morbidelli, M., *Aggregation of stable colloidal dispersion under short high-shear microfluidic conditions*, Chemical Engineering Journal, 2019, 122225
7. Bielser, J. M., Chappuis, L., Xiao, Y., Souquet, J., Broly, H., & Morbidelli, M., *Perfusion cell culture for the production of conjugated recombinant fusion proteins reduces clipping and quality heterogeneity compared to batch-mode processes*, Journal of biotechnology, 2019
8. Wolf, M. K., Müller, A., Souquet, J., Broly, H., Morbidelli, M., *Process design and development of a mammalian cell perfusion culture in shake-tube and benchtop bioreactors*, Biotechnology and Bioengineering, 2019.
9. Klaue, A., Kruck, M., Binel, P., Friederichs, N., Bertola, F., Wu, H., Morbidelli, M., *Ziegler-Natta Catalyst Sonofragmentation for Controlling Size and Size Distribution of the Produced Polymer Particles*, AIChE Journal, 2019
10. Caimi, S., Colombo, C., Ferrari, R., Storti, G., Morbidelli, M. *Recovery of Mineral Oil from Underground Electrical Cables*, International journal of environmental research and public health, 2019, 16(13), 2357
11. Vogg, S., Ulmer, N., Souquet, J., Broly, H., Morbidelli, M., *Experimental Evaluation of the Impact of Intrinsic Process Parameters on the Performance of a Continuous Chromatographic Polishing Unit (MCSGP)*, Biotechnology Journal, 2019, 14(7), 1800732
12. Yang T, Cingolani A, Casalini T, Aribia A, Klaue A, Wu H, Stavrakis S, de Mello A, Morbidelli M. *Reactive Gelation Synthesis of Monodisperse Polymeric Capsules Using Droplet-Based Microfluidics*, Advanced Materials Technologies, 2019, 1900092
13. Lorenz, M., Paganini, C., Storti, G., Morbidelli, M., *Macroporous polymer-protein hybrid materials for antibody purification by combination of reactive gelation and click-chemistry*, Materials, 2019, 12(10), 1580
14. Bertrand, V., Karst, D. J., Bachmann, A., Cantalupo, K., Soos, M., Morbidelli, M., *Transcriptome and proteome analysis of steady-state in a perfusion CHO cell culture process*, 2019, 116(8), 1959-1972
15. Ulmer, N., Ristanovic, D., Morbidelli, M. *Process for continuous Fab production by digestion of IgG*, Biotechnology journal, 2019, 1800677
16. Broglia, Francesca; Rimoldi, Luca; Meroni, Daniela; De Vecchi, Sebastiano; Morbidelli, Massimo; Ardizzone, Silvia, *Guaiacol hydrodeoxygenation as a model for lignin upgrading. Role of the support surface features on Ni-based alumina-silica catalysts*, Fuel, 2019, 243, 501-508
17. Klaue, Antoine; Kruck, Matthias; Friederichs, Nic; Bertola, Francesco; Wu, Hua; Morbidelli, Massimo, *Insight into the Synthesis Process of an Industrial Ziegler-Natta Catalyst*, Ind. Eng. Chem.

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18. Wolf, Moritz K. F.; Closet, Aurelie; Bzowska, Monika; Bielser, Jean-Marc; Souquet, Jonathan; Broly, Herve; Morbidelli, Massimo, *Improved Performance in Mammalian Cell Perfusion Cultures by Growth Inhibition*, Biotechnology Journal, 2019, 14, 1700722
 19. Bielser Jean-Marc; Domaradzki Jakub; Souquet Jonathan; Broly Herve; Bielser Jean-Marc; Morbidelli Massimo, *Semi-Continuous Scale-Down Models for Clone and Operating Parameter Screening in Perfusion Bioreactors*, Biotechnology Progress, 2019, 2790
 20. Ulmer Nicole; Vogg Sebastian; Muller-Spath Thomas; Morbidelli Massimo, *Purification of Human Monoclonal Antibodies and Their Fragments*, Methods in Molecular Biology, 2019, 1904, 163-188
 21. Baur, D., Angelo, J., Chollangi, S., Müller-Späth, T., Xu, X., Ghose, S., Li, Z. J., Morbidelli, M., *Model-assisted process characterization and validation for a continuous two-column protein A capture process*. Biotechnol. Bioeng., 2019, 116, 87-98
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 26. Wolf, M.K.F., Lorenz, V., Karts, D., Souquet, J., Broly, H., Morbidelli, M., *Development of a shake tube-based scale-down model for perfusion cultures*. Biotechnol. Bioeng., 2018, 115, 2703-2713
 27. Caimi, S., Wu, H., Morbidelli, M., *PVdF-HFP and Ionic-Liquid-Based, Freestanding Thin Separator for Lithium-Ion Batteries*. ACS Applied Energy Materials, 2018, 1, 5224-5232
 28. Beltzung, A., Newton, M. A., Nachtegaal, M., Wu, H., Storti, G., Morbidelli, M., *Distribution and stabilization of Pd catalysts in porous carbon-based supports by aggregation of pre-doped colloidal particles*. APL Materials, 6, 100704
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 31. Vogg, S., Wolf, M. K. F., Morbidelli, M., *Continuous and Integrated Expression and Purification of Recombinant Antibodies*, in *Recombinant Protein Expression in Mammalian Cells*, edited by Hacker, D. L., 2018, p. 147-178
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 48. Fischer, E. J., Cuccato, D., Storti, G., Morbidelli, M., *Effect of the charge interactions on the composition behavior of acrylamide/acrylic acid copolymerization in aqueous medium*. *European Polymer Journal*, 2018, 98: 302-312
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Patents

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