



Multiphase Catalytic Reactors: Theory, Design, Manufacturing, and Applications

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DESCRIPTION

- Provides a holistic approach to multiphase catalytic reactors from their modeling and design to their applications in industrial manufacturing of chemicals
- Covers theoretical aspects and examples of fixed-bed, fluidized-bed, trickle-bed, slurry, monolith and microchannel reactors
- Includes chapters covering experimental techniques and practical guidelines for lab-scale testing of multiphase reactors
- Includes mathematical content focused on design equations and empirical relationships characterizing different multiphase reactor types together with an assortment of computational tools
- Involves detailed coverage of multiphase reactor applications such as Fischer-Tropsch synthesis, fuel processing for fuel cells, hydrotreating of oil fractions and biofuels processing

ABOUT THE AUTHOR

Zeynep Ilsen Önsan received her B.Sc degree (1968) in chemical engineering from former Robert College (now Bogazici University), Istanbul-Turkey, and her Ph.D. degree and D.I.C. (1972) in chemical engineering and heterogeneous catalysis from Imperial College, London-UK. She pioneered in establishing heterogeneous catalysis research in Turkey at Bogazici University, directed several sizeable research and institution-building projects, and has 40 years of teaching and research experience in heterogeneous catalysis and chemical reaction engineering and 25 years of research collaboration and teaching in bioreaction

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