Guy B. Marin - Selection of publications

Books

- Kinetics of Chemical Reactions: Decoding Complexity
- Advanced Data Analysis and Modelling in Chemical Engineering

Highly-cited articles

- *The reaction mechanism of the partial oxidation of methane to synthesis gas: a transient kinetic study over rhodium and a comparison with platinum.*
  E.P.J. Mallens, J.H.B.J. Hoebink, G.B. Marin (Journal of Catalysis, 167, 43-56, 1997)
- *Ab initio study of radical addition reactions: addition of a primary ethylbenzene radical to ethene (I).*
  V. Van Speybroeck, D. Van Neck, M. Waroquier, S. Wauters, M. Saeys, G.B. Marin (Journal of Physical Chemistry A, 104, 10939-10950, 2000)
- *Design of adiabatic fixed-bed reactors for the partial oxidation of methane to synthesis gas. Application to production of methanol and hydrogen-for-fuel-cells.*
  C.R.H. de Smet, M.H.J.M. de Croon, R.J..Berger, G.B. Marin, J.C. Schouten (Chemical Engineering Science, 56, 4849-4861, 2001)
- *Understanding the failure of direct C-C coupling in the zeolite-catalyzed Methanol-to-Olefin Process.*
  D. Lesthaeghe, V.V. Speybroeck, G.B. Marin, M. Waroquier Angewandte (Chemie International Edition, Very Important Paper (VIP), 45, 1714-1719, 2006)
- *Simulation of Heterogeneously MgO-Catalyzed Transesterification for Fine-Chemical and Biodiesel Industrial Production.*
  T.F. Dossin, M.-F. Reyniers, R.J. Berger, G.B. Marin (Appl. Cat. B Environmental, 67, 136-148, 2006)
- *Comprehensive Reaction Mechanism for n-Butanol Pyrolysis and Combustion.*
  Harper, M.R.; Van Geem, K.M.; Pyl, S.P.; Marin, G.B.; Green, W.H. (Combustion and Flame, 158, 1, 16-41, 2011)
- *Linear Gradient Quality of ATRP Copolymers.*
  Van Steenberge, P.; D'hooge, D.R.; Wang, Y.; Zhong, M.; Reyniers, M.-F.; Konkolewicz, D.; Matyjaszewski, K.; Marin, G.B. (Macromolecules, 45 (21), 8519-8531, 2012)
- *Enhanced Carbon-Resistant Dry Reforming Fe-Ni Catalyst: Role of Fe.*
  Theofanidis, S.A.; Galvita, V.V.; Poelman, H.; Marin, G.B. (ACS Catalysis, 5 (5), 3028-3039, 2015)
- *Super-dry reforming of methane intensifies CO2 utilization via Le Chatelier's Principle.*
  Buelens, L.C.; Galvita, V.V.; Poelman, H.; Detavernier, C.; Marin, G.B. (Science, 354 (6311), 449-452, 2016)
- *The Chemical Route to a Carbon Dioxide Neutral World.*
  Martens, J.; Bogaerts, A.; De Kimpe, N.; Jacobs, P.; Marin, G.B.; Rabaey, K.; Saeys, M.; Verhelst, S. (ChemSusChem, 10, 1-18, 2017)
- *New Trends in Olefin Production.*
  Amghizar, I.; Vandewalle, L.A.; Van Geem, K.M.; Marin, G.B. (Engineering, 3 (2), 171-178, 2017)
- *Upgrading the value of anaerobic digestion via chemical production from grid injected biomethane.*
  Verbeeck, K.; Buelens, L.C.; Galvita, V.V.; Marin, G.B.; Van Geem, K.M.; Rabaey, K. (Energy & Environmental Science, 11 (7), 1788-1802, 2018)

- *The role of mass and heat transfer in the design of novel reactors for oxidative coupling of methane.*
  Vandewalle, L.A.; Van de Vijver, R.; Van Geem, K.M.; Marin, G.B. (Chemical Engineering Science, 198, 268-289, 2019)
- *Making chemicals with electricity.*
  Van Geem, K.M.; Galvita, V.V.; Marin, G.B. (Science, 364 (6442), 734-735, 2019 Perspective paper)