

THE CANADIAN JOURNAL OF CHEMICAL ENGINEERING

SEPTEMBER 2023

VOLUME 101 NUMBER 9

Issue Highlights	4799	Grafting PEG and alkyl comb polymers onto bleached wood pulp fibres	4914
Special Issue Honouring Professor Archie E. Hamielec		<i>Xiao Wu, Annika Culhane, Kashaf Amir, Paul Bicho, Erin A. S. Doherty, Richard J. Riehle, Sachin Borkar, Jose Moran-Mirabal and Robert H. Pelton</i>	
Archie E. Hamielec memorial issue	4800	<i>In-silico vinyl chloride suspension polymerization: Kinetic modelling, thermal runaway prediction, and prevention</i>	4927
<i>João B. P. Soares, Alexander Penlidis, Hidetaka Tobita and Shiping Zhu</i>		<i>Jian-Peng Han, Ya-Nan Yang, Chang-Sen Zhao, Ying-Hui Qian, Qiang Niu, Zheng-Hong Luo and Yin-Ning Zhou</i>	
Editorial honouring Professor Hamielec	4804	Engineering cohesion and adhesion through dynamic bonds for advanced adhesive materials	4941
<i>Andrew Nick Hrymak, Robert Pelton and Shiping Zhu</i>		<i>Yichen Wan, Wentian Qiu, He Zhu, Qi Zhang and Shiping Zhu</i>	
Mathematical modelling for 1,6-hexanediol diacrylate photopolymerization in presence of oxygen	4807	Polyolefin microstructural deconvolution methods: The good, the bad, and the ugly	4955
<i>Anh-Duong Dieu Vo, Kaveh Abdi, Jurre F. U. Tak, Luuk van der Velden, Robin X. E. Willemsse, Marjolein N. van der Linden, Piet D. Iedema and Kimberley B. McAuley</i>		<i>João B. P. Soares</i>	
Impact of silica pore structure on the performance of metallocene catalysts in ethylene gas-phase polymerization	4819	Polyhedral oligomeric silsesquioxane-based functional coatings: A review	4979
<i>Felipe Morais Bolner, Yashmin Rafante Blazzio, Bárbara Rezende Lara, Fabricio Machado and Timothy F. L. McKenna</i>		<i>Kaka Zhang, Shuaishuai Huang, Qi Zhang, He Zhu and Shiping Zhu</i>	
Flexible nanoscale co-continuous structures prepared by controlled crazing of ethylene-octene elastomers and in-situ polymerization of conductive networks	4832	Progress in the catalyst for ethylene/ α -olefin copolymerization at high temperature	4992
<i>Anton B. Kornberg, Michael R. Thompson and Shiping Zhu</i>		<i>Feng Li and Weifeng Liu</i>	
Functionalized lactic acid macromonomers via polycondensation as an alternative to ring opening polymerization	4845	Editor's Choice	
<i>Arianna Zanoni, Flavio Tollini, Cora Casiraghi, Giuseppe Storti, Mattia Sponchioni and Davide Moscatelli</i>		A unified polymer reaction engineering methodology for catalytic olefin polymerization: From reaction conditions and catalyst reaction performance to molecular and rheological properties for forward, reverse engineering and deconvolution applications	5020
Dimension of heterogeneous network architecture formed in emulsion cross-linking copolymerization	4860	<i>Vasileios Touloupidis</i>	
<i>Hidetaka Tobita</i>		Deposition of polymeric sensing materials for gas detection	5034
Mathematical modelling of enzymatically cross-linked polymer-phenol conjugates using deterministic and stochastic methods	4871	<i>Bhoomi H. Mavani, Mohamed Arabi, Resul Saritas, Alison J. Scott, Eihab Abdel-Rahman and Alexander Penlidis</i>	
<i>Filippos F. Karageorgos, Athina C. Vasileiadou and Costas Kiparissides</i>		Thermoset/graphene polymer composites—A review of processing and properties	5045
Synthesis and characterization of polyolefin thermoplastic elastomers: A review	4886	<i>Piyush Lashkari, Ranjith Divigalpitiya and Andrew N. Hrymak</i>	
<i>Minghao Sun, Yangke Xiao, Kan Liu, Xuan Yang, Pingwei Liu, Suyun Jie, Jijiang Hu, Shengbin Shi, Qingyue Wang, Khak Ho Lim, Zhenxue Liu, Bo-Geng Li and Wen-Jun Wang</i>		Monte Carlo simulation of terpolymerization: Optimizing the simulation and post-processing times	5059
On-line control of emulsion polymerization reactors: A perspective	4907	<i>Artur S. C. Rego, Amanda M. Amaral and Amanda L. T. Brandão</i>	
<i>José M. Asua</i>		Evaluating the performance of designed terpolymers for polymer flooding	5072
		<i>Alison J. Scott, Priyadarshini Bhicajee, Rowan Kistamah, Laura Romero-Zerón and Alexander Penlidis</i>	

Free-radical propagation rate coefficients	5087	Thiol-ene emulsion polymerization using a semi-continuous approach.	5270
<i>Michael Buback</i>		<i>Fabian Wenzel, Urko Larrañaga, Miren Aguirre and Jose R. Leiza</i>	
Organosilicon-functionalized polyolefins, a kind of designable and versatile polymer: From preparation to applications	5099	Effects of diethylaluminum ethoxide pre-reduction and chromium loading over bistrisphenylsilyl chromate/silica for ethylene polymerization.	5281
<i>Yuquan Cai, Wenyu Fang, Jieyuan Zheng, Jie Xu and Hong Fan</i>		<i>Xiaofeng Xue, Yang Yang, Yuli Gao, Jianjun Yi, Boping Liu and Yulong Jin</i>	
Effect of silphenylenesiloxane units on the thermal stability of poly[methyl(trifluoropropyl)siloxane].	5131	Thermal behaviour and crystallization analysis of ethylene-propylene (EP) copolymer and EP-styrene terpolymer. . .	5291
<i>Yang You, Dafu Wei, Xiang Xu, Yong Guan, Jianding Chen and Huining Xiao</i>		<i>Md Khairul Bahar, Hassam Mazhar, Wasim Ullah Khan and Mamdouh Ahmed Al-Harathi</i>	
Customizing the comonomer incorporation distribution in Ziegler–Natta-based LLDPE: Harnessing the influences of the titaniation temperature during catalyst synthesis and of polymerization process parameters	5140	A systematic study of <i>tert</i> -butylacrylamide-methyl acrylate-acrylic acid radical solution terpolymerization	5300
<i>Lukas Göpperl, Daniel Christian Pernusch, Julia Felicitas Schwarz and Christian Paulik</i>		<i>Maryam Agboluaje, Gagandeep Kaur, Eva Dušička, Anna Urbanová, Mohammad Pishnamazi, Branislav Horváth, Miroslav Janata, Vladimír Raus, Igor Lacík and Robin A. Hutchinson</i>	
Modelling of a continuous kneader reactor for the polymerization of partially neutralized acrylic acid.	5151	Acrylamide-sodium acrylate copolymers: A comparison between copolymerization and hydrolysis	5315
<i>Carla Luciani and Kyu Yong Choi</i>		<i>Ruilei Kong, Yeheng Guo, Ian Barker, Tia Hamielec and David Hunkeler</i>	
Star polyethylenes by coordinative polymerization	5162	The method of moments used in polymerization reaction engineering for 70 years: An overview, tutorial, and minilibrary . . .	5324
<i>Zhibin Ye and Ramesh Subramanian</i>		<i>Iván Zapata-González and Enrique Saldívar-Guerra</i>	
Modelling of polymerization kinetics and molar mass development in the nitroxide-mediated polymerization (NMP) of styrene in supercritical carbon dioxide using the PC-SAFT equation of state.	5179	The surrogate scaffold method for quantifying molecular release kinetics from drug delivery systems	5357
<i>Porfirio López-Domínguez, Marlene Ríos-López, Jesús Eduardo Rivera-Peláez, José Fernando Barragán-Aroche and Eduardo Vivaldo-Lima</i>		<i>Fernando T. P. Borges, Georgia Papavasiliou and Fouad Teymour</i>	
Advancements in droplet reactor systems represent new opportunities in chemical reactor engineering: A perspective	5189	A retrospective look at developments in size exclusion chromatography from the early Hamielec research era to the present day	5365
<i>Meng Zhang, Asher E. Vokoun, Boyuan Chen, Weichen Deng, Robert L. Dupont, Yang Xu and Xiaoguang Wang</i>		<i>Neil T. McManus</i>	
Enhancement in the limit of detection of lab-on-chip microfluidic devices using functional nanomaterials.	5208	Early bird gets the network: The relative importance of reactivity ratios, Ψ parameter, and crosslinker level on gel formation in FRP.	5382
<i>Vijay Vaishampayan, Ashish Kapoor and Sarang P. Gumfekar</i>		<i>Yung-Chun Lin, Chang Liu, Amit K. Tripathi and John G. Tsavalas</i>	
Methacrylic acid-based amphiphilic block-random copolymer stabilizers for emulsion polymerization	5222	Mixing rules for high density polyethylene-polypropylene blends	5395
<i>Ikenna H. Ezenwajiaku, Connor A. Sanders, Sean R. George and Michael F. Cunningham</i>		<i>Katherine M. E. Stewart, Ethan Stonecipher, Haibin Ning and Selvam Brian Pillay</i>	
Mathematical modelling of coalescence of viscous particles: An overview.	5231	Cellulose nanocrystal addition in thin film nanocomposite membranes: Which monomer solution is preferred?.	5408
<i>Nickolas D. Polychronopoulos, Lefteris Benos and John Vlachopoulos</i>		<i>Fatemeh Abedi, Boguslaw Kruczek and Marc A. Dubé</i>	
Estimation of the chain propagation rate constants of propylene polymerization and ethylene-1-hexene copolymerization catalyzed with MgCl ₂ -supported Ziegler–Natta catalysts.	5244	Influence of the longest ethylene and isotactic propylene sequences on crystallization elution fractionation of ethylene/propylene copolymers	5420
<i>Wentao Zhong, Tao Xu, Xianrong Shen, Zhisheng Fu, Xiaoxia Cai, Haitao Liu, Qi Wang and Zhiqiang Fan</i>		<i>Voradon Voraruth, Siripon Anantawaraskul, Saeid Mehdiabadi and João B. P. Soares</i>	
Modelling and parameter estimation of <i>trans</i> - β -farnesene coordination polymerization	5256		
<i>Marília Caroline C. de Sá, Teresa Córdova, Príamo A. Melo, Ramón Díaz de León and José Carlos Pinto</i>			