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2019

Examining the Influence of Anion Nucleophilicity on the Polymerisation Initiation Mechanism of Phenyl Glycidyl Ether.

Binks FC, Cavalli G, Henningsen M, Howlin BJ and Hamerton I. *Polymers* vol. 11, (4).Mdpi.

On the use of benzaldehyde to improve the storage stability of one-pot, epoxy ionic liquid formulations.

Binks FC, Cavalli G, Henningsen M, Howlin BJ and Hamerton I. *European Polymer Journal* vol. 112, 126-136. Elsevier.

2018

Examining the effects of storage on the initiation behaviour of ionic liquids towards the cure of epoxy resins.

Binks FC, Cavalli G, Henningsen M, Howlin BJ and Hamerton I. *Reactive and Functional Polymers* vol. 133, 9-20. Elsevier.

Examining the Influence of Organophosphorus Flame Retardants on the Thermal Behavior of Aromatic Polybenzoxazines.

Taylor M, Cavalli G and Hamerton I. *Macromolecular Chemistry and Physics* vol. 220, (1).Wiley.

Examining the nature of network formation during epoxy polymerisation initiated with ionic liquids.

Binks FC, Cavalli G, Henningsen M, Howlin BJ and Hamerton I. *Polymer* vol. 150, 318-325. Elsevier.

Examining the kinetics of the thermal polymerisation behaviour of epoxy resins initiated with a series of 1-ethyl-3-methylimidazolium based ionic liquids.

Binks FC, Cavalli G, Henningsen M, Howlin BJ and Hamerton I. *Thermochimica Acta* vol. 663, 19-26. Elsevier.

Investigating the mechanism through which ionic liquids initiate the polymerisation of epoxy resins.

Binks FC, Cavalli G, Henningsen M, Howlin BJ and Hamerton I. *Polymer* vol. 139, 163-176. Elsevier.

2016

Improving the hydrolytic stability of aryl cyanate esters by examining the effects of extreme environments on polycyanurate copolymers.

Crawford AO, Cavalli G, Howlin BJ and Hamerton I. *Reactive and Functional Polymers* vol. 109, 104-111. Elsevier.

Investigation of structure property relationships in liquid processible, solvent free, thermally stable bismaleimide-triazine (BT) resins.

Crawford AO, Cavalli G, Howlin BJ and Hamerton I. *Reactive and Functional Polymers* vol. 102, 110-118. Elsevier.

Rejection of Caffeine and Carbamazepine by Surface-Coated PVDF Hollow-Fiber Membrane System.

Ojajuni O, Holder S, Cavalli G, Lee J and Saroj DP. *Industrial & Engineering Chemistry Research* vol. 55, (8) 2417-2425. American Chemical Society (Acs).

2015

What are we going to do about a problem like polymer chemistry? Develop new methods of delivery to improve understanding of a demanding interdisciplinary topic.

Cavalli G, Hamerton I and Lygo-Baker S. *Chemistry Education* vol. 16, (2) 293-301. Royal Society of Chemistry (Rsc).

Removal of organic micropollutants using membrane-assisted processes: a review of recent progress.
Ojajuni O, Saroj D and Cavalli G. *Environmental Technology Reviews* vol. 4, (1) 17-37. Taylor & Francis.

2013

Site-specific, covalent incorporation of Tus, a DNA-binding protein , on ionic-complementary self-assembling peptide hydrogels using transpeptidase Sortase A as a conjugation tool.
Piluso S, Cassell HC, Gibbons JL, Waller TE, Plant NJ, Miller AF and Cavalli G. *Soft Matter* vol. 9, (29) 6752-6756. Royal Society of Chemistry (Rsc).

2012

Straw N-halamines: Evaluation in single and multistage filtration systems.
Ahmed AE-SI, Cavalli G, Bushell ME, Wardell JN, Pedley S, Charles K and Hay JN. *Carbohydrate Polymers* vol. 92, (2) 1934-1941. Elsevier.

Examining the thermo-mechanical properties of novel cyanate ester blends through empirical measurement and simulation.
Crawford AO, Howlin BJ, Cavalli G and Hamerton I. *Reactive and Functional Polymers* vol. 72, (9) 596-605. Elsevier.

Quantifying the Effect of Polymer Blending through Molecular Modelling of Cyanurate Polymers.
Crawford AO, Hamerton I, Cavalli G and Howlin BJ. *Plos One* vol. 7, (9). Public Library of Science (Plos).

2011

N-halamines from rice straw.
Ahmed AE-SI, Cavalli G, Wardell JN, Bushell ME and Hay JN. *Cellulose* vol. 19, (1) 209-217. Springer Nature.

2010

New Approach To Produce Water Free of Bacteria, Viruses, and Halogens in a Recyclable System.
Ahmed AE-SI, Cavalli G, Bushell ME, Wardell JN, Pedley S, Charles K and Hay JN. *Applied and Environmental Microbiology* vol. 77, (3) 847-853. American Society For Microbiology.

Metabolomic profiling can differentiate between bactericidal effects of free and polymer bound halogen.
Ahmed AEI, Wardell JN, Thumser AE, Avignone Rossa CA, Cavalli G, Hay JN and Bushell ME. *Journal of Applied Polymer Science* vol. 119, (2) 709-718. Wiley.

Synthesis of beaded poly(vinyl ether) solid supports with unique solvent compatibility.
Greenland BW, Liu S, Cavalli G, Alpay E and Steinke JHG. *Polymer* vol. 51, (14) 2984-2992. Elsevier.

Macroscopic Nhalamine biocidal polymeric beads.

Ahmed AEI, Hay JN, Bushell ME, Wardell JN and Cavalli G. *Journal of Applied Polymer Science* vol. 116, (4) 2396-2408. Wiley.

2009

Optimizing halogenation conditions of Nhalamine polymers and investigating mode of bactericidal action.
Ahmed AEI, Hay JN, Bushell ME, Wardell JN and Cavalli G. *Journal of Applied Polymer Science* vol. 113, (4) 2404-2412. Wiley.

2008

Biocidal polymers (II): Determination of biological activity of novel N-halamine biocidal polymers and evaluation for use in water filters.
Ahmed AE-SI, Hay JN, Bushell ME, Wardell JN and Cavalli G. *Reactive and Functional Polymers* vol. 68, (10) 1448-1458. Elsevier.

Diffractive Micro Bar Codes for Encoding of Biomolecules in Multiplexed Assays.
Broder GR, Ranasinghe RT, She JK, Banu S, Birtwell SW, Cavalli G, Galitonov GS, Holmes D, Martins HFP, MacDonald KF, Neylon C, Zheludev N, Roach PL and Morgan H. *Analytical Chemistry* vol. 80, (6) 1902-1909. American Chemical Society (Acs).

Biocidal polymers (I): Preparation and biological activity of some novel biocidal polymers based on uramil and its azo-dyes.

Ahmed AEI, Hay JN, Bushell ME, Wardell JN and Cavalli G. *Reactive and Functional Polymers* vol. 68, (1) 248-260. Elsevier.

2007

Covalent Attachment of Proteins to Solid Supports and Surfaces via Sortase-Mediated Ligation.

Chan L, Cross HF, She JK, Cavalli G, Martins HFP and Neylon C. *Plos One* vol. 2, (11).Public Library of Science (Plos).

Novel Non-PEG Derived Polyethers as Solid Supports. 2. Solid-Phase Synthesis Studies.

Cavalli G, Shooter AG, Pears DA, Wellings DA, Gulzar S and Steinke JHG. *Acs Combinatorial Science* vol. 9, (06) 1012-1027.American Chemical Society (Acs).

Multistep Synthesis on SU-8: Combining Microfabrication and Solid-Phase Chemistry on a Single Material.

Cavalli G, Banu S, Ranasinghe RT, Broder GR, Martins HFP, Neylon C, Morgan H, Bradley M and Roach PL. *Acs Combinatorial Science* vol. 9, (3) 462-472.American Chemical Society (Acs).

2003

Non-PEG-Derived Polyethers as Solid Supports. 1. Synthesis, Swelling Studies, and Functionalization.

Cavalli G, Shooter AG, Pears DA and Steinke JHG. *Acs Combinatorial Science* vol. 5, (5) 637-644.American Chemical Society (Acs).

2002

Chemoenzymatic synthesis of chiral enones from aromatic compounds.

Schapiro V, Cavalli G, Seoane GA, Faccio R and Mombrú AW. *Tetrahedron Asymmetry* vol. 13, (22) 2453-2459. Elsevier.

2000

(S)Tricarbonyl[(1,2,3,4)(5R,6S)1chloro5,6dimethoxycyclohexa1,3diene]iron(0).

Russi S, Suescun L, Mombru A, Pardo H, Mariezcurrena R, Cavalli G and Seoane G. *Acta Crystallographica Section C: Structural Chemistry* vol. 56, (7) 820-821.International Union of Crystallography (Iucr).

1999

Osmylation of chiral cis -cyclohexadienediols.

Brovetto M, Schapiro V, Cavalli G, Padilla P, Sierra A, Seoane G, Suescun L and Mariezcurrena R. *New Journal of Chemistry* vol. 23, (5) 549-555.Royal Society of Chemistry (Rsc).