

Professor James Busfield FEng MA PhD CEng FIMMM FHEA

Present Position at Queen Mary University of London (QMUL)

Professor of Materials, QMUL. Appointed as a lecturer in 1994, Reader in 2009, Full Professor in 2013
Deputy Head of School in School of Engineering and Materials Science since 2021

Member of the School Management Team since 2000

National Teaching Fellow since 2009

Fellow of the Royal Academy of Engineering since 2020

Previous Appointments

1989 - 1994 Design Engineer, BTR AVS, White Horse Business Park, Trowbridge

Qualifications

2000 PhD from Queen Mary University of London

1991 MA degree in Engineering Science from Worcester College, Oxford University, UK

Current Teaching Responsibilities at QMUL

EMS501U (Formerly MAT602 or MTR011) - Designing for Sustainable Manufacture (1998 - present)

Role: Module Organiser

Level: 5

Average No. of students: Approx. 400+

Research

I run the largest in elastomer materials research group in the UK (with 2 PDRAs and 10 PhD students). I have successfully supervised 45 completed PhD students. I have won 55 grants in the last decade with a total value exceeding £4M. This includes significant funding from the following industry partners: Bridgestone, Continental Tires, SRI, Dunlop, Pirelli, SLB, Aston Martin F1, Redbull F1, NGF, Weir Group, Cabot and Birla Carbon and the following funding agencies: EU, AHRC, EPSRC, KTN & Innovate UK. I have published 208 papers as listed on [Google Scholar](#) where I have an H-Index of 40. I have contributed multiple Impact Case Studies for QMUL in each of the last three Research Excellence Framework Reviews.

The areas of research that I work in include the strength, fatigue and abrasion of elastomers, the behaviour of filled and foamed elastomers, the functional properties of elastomers, including the design of dielectric elastomer systems and smart strain sensitive elastomer systems, soft robotics, the recycling of elastomers and investigations into the dynamic and frictional behaviour of elastomers.

Research Supervision

PDRAs: Thomas Griggs (EPSRC funded) & Giacomo Sasso (European Space Agency Funded)

PhD students:

1. Abhishek KAITHERI EDATHIL (2026) Wear analysis in passenger tyre tread compounds (SRI, Japan)
2. Parinchaya SRITHAVORN (2025) The development of labile crosslinks in elastomer composites (Royal Thai Government Scholarship)
3. Max DIXEY (2025) Tailoring the polymer filler interface in tyre tread compounds (Continental Tires)
4. Thao HUONG (2025) Optimisation of Tyre Wear performance (Aston Martin F1)
5. Orkid RAMEKAJ (2025) Ageing of elastomer materials under extreme conditions (SLB)
6. Sarah PEDRONI (2025) Microstructural modelling of filled elastomers (Birla Carbon)
7. Yutong SUN (2023) Innovative Tactile and Optical Sensing and Actuating Devices (CSC Scholarship / European Space Agency)
8. María José MUNGUÍA-ROMERO (2022) Sustainable Future Footwear and Fashion Technology (Principal's Scholarship / AHRC grant)

9. Afni RESTASARI (2022) Self-healing PU materials for leading edge erosion on wind turbine blades (Indonesian Government Scholarship)
10. Rattapong NUMARD (2022) Filler Reinforcement of Elastomers (Royal Thai Government Scholarship)

Under my supervision the following PhD students have completed since 2000.

1. Chudej DEEPRASERTKUL (2000) *Dynamic properties of carbon black filled elastomers containing liquids* (Royal Thai Government)
2. Christian RATSIMBA (2000) *Fatigue crack growth of filled elastomers* (BTR AVS)
3. Katsuhiko TSUNODA (2001) *The role of visco-elasticity on the crack growth of rubber* (Bridgestone)
4. Wei Hann NG (2002) MPhil *Stiffness and fatigue failure prediction of bonded elastomer components* (Rubber Research Institute of Malaysia)
5. Ken YAMAGUCHI (2002) *The mechanical and electrical behaviours of carbon black filled elastomers under strain* (Bridgestone)
6. Azura RASHID (2003) *An investigation of the effect of ageing on the physical properties of natural rubber* (TARRC / University of Science Malaysia)
7. Samantha BAXTER (2005) MPhil *Materials selection for polymer synthetic heart valves* (EPSRC Case)
8. Amir HON (2005) *Modelling filler reinforcement in elastomers* (ORS / Petronas)
9. Ioannis PAPADOPOULOS (2006) *Predicting the fatigue life of elastomer components* (ORS / Trelleborg)
10. Praveen KUMAR (2007) *The recycling of crumb rubber* (WRAP and ECCMR)
11. Hancheng LIANG (2008) *Investigating the mechanism of elastomer abrasion* (Superaguri F1 / Bridgestone)
12. Vineetkumar JHA (2009) *The behaviour of carbon black fillers in elastomer* (ARTIS)
13. Philip GABRIEL (2010) *Investigation and modelling of rubber friction* (Redbull F1 / RML / EPSRC)
14. Nuthanun SUPHADON (2010) *Viscoelastic properties of elastomer under complex loading* (Royal Thai Government)
15. Kartpan SAKULKAEW (2012) *Tearing of rubber* (Royal Thai Government)
16. David LOWE (2012) *Natural rubber - organoclay nanocomposites* (TARRC)
17. Samuel ASARE (2013) *Fatigue life modelling in elastomer components* (Volvo / Swedish Fatigue Network)
18. Robert SHORTER (2014) *Modelling of foamed rubbers* (DSTL sponsored)
19. Lewis TUNNICLIFFE (2015) *Particulate reinforcement of elastomers at small strains* (EPSRC Case / Sibelco)
20. Menglong HUANG (2016) *The strain dependent dielectric behaviour of carbon black filled natural rubber* (CSC / Bridgestone)
21. Gabriele FREDIANI (2017) *Enabling wearable soft tactile displays with dielectric elastomer actuators* (EU Horizon 2020 sponsored)
22. David STRATFORD-DEVALBA (2017) *Friction of elastomer materials* (EPSRC Case / Hyundai)
23. Guangchang WU (2017) *Predicting tyre compound wear* (Cabot)
24. Hediye ZAHABI (2017) *Development of materials and applications for electroactive composites* (ARTIS)
25. Thomas BAUMARD (2017) *Fatigue life prediction in aircraft tyres* (EPSRC Case / Dunlop Aircraft Tyres)
26. Yi LIU (2018) *Flexible smart thermostatic polymer composite heaters* (LMK Thermosafe sponsored)
27. Richard WINDSLOW (2018) *Seal design in the oil industry* (Cameron Sponsored)
28. Francesca CARLEO (2019) *Modelling of viscoelasticity in engine mounts* (Jaguar Land Rover sponsored)
29. Hugh BOYS (2019) *Design and applications of a multi fingertip dielectric elastomer actuated tactile display* (CDT in Digital Music sponsored)
30. Yinping TAO (2019) *Fatigue in carbon fibre reinforced timing belts* (NGF sponsored)
31. Michelle GHILARDI (2020) *Soft smart machines: electrically tuneable devices made of electro-responsive elastomeric smart materials* (EU Horizon)
32. Leihao CHEN (2020) *Innovative tuneable optical devices based on smart electroactive elastomers* (CSC scholarship & Bridgestone)
33. Barnabas SHAW (2020) *Characterisation of elastomers for dynamic sealing applications* (EPSRC Case & Schlumberger sponsored)
34. Ben DRAIN (2021) *Complex Architectures of Poly(2-oxazoline)s via Post-Polymerisation Modification* (Infineum & EPSRC Case)
35. Anureet KAUR (2022) *Development of Self-healing and Recyclable Elastomers* (Weir Group)

36. Eduardo YANES (2022) Frictional Behaviour of Elastomer Seals (Schlumberger Cambridge Sponsored)
37. Travis HOHENBERGER (2022) Prediction of Leakage in Elastomeric Seals for High Pressure Applications (Schlumberger Houston Sponsored)
38. William KYEI-MANU (2023) Carbon Black Reinforcement of Tyre Tread Compounds (Birla Carbon, USA)
39. Ruhi PATEL (2024) All polymer artificial heart valves (Joint PhD with Cambridge University)
40. Giacomo SASSO (2025) Dielectric elastomer actuated optical devices (EU H2020 funded / European Space Agency)
41. Evangelos Koliolios (2025) Tyre Degradation Performance (SRI)
42. Kirsty Rutherford (2025) Filler reinforcement in elastomeric seals (EPSRC Case Award / SLB)
43. Eathan PLASCHKA (2025) Optimisation of Tyre Wear Performance (Aston Martin F1)
44. Aaron DUNCAN (2025) Ageing of elastomer materials under extreme conditions (EPSRC Case Award / SLB)
45. Maria del Mar VIZCAINO (2025) Modelling the Physical Ageing of Rubber (Swedish Government grant jointly with KTH, Stockholm, Sweden)

Editorial Roles

- 2026 - Editor of Constitutive Models for Rubber XIV (Published by Balkema)
- 2020 - Editorial Board of Polymers
- 2010 - Editor of Rubber Papers for Plastics, Rubber and Composites: Macromolecular Engineering
- 2010 - Editorial Board of Rubber Chemistry and Technology
- 2005 - Editorial Board of Plastic, Rubber and Composites: Macromolecular Engineering
- 2003 - Editor of Constitutive Models for Rubber III (Published by Balkema)

Other External Roles

- 2026 Chairman of European Conference on Constitutive Models for Rubber XIV, Oxford, UK
- 2023 Chairman of the global "RubberCon 2023" Conference, Edinburgh, UK
- 2019 Chairman of the global "International Rubber Conference 2019", London, UK
- 2017 - 2021 External Examiner of the Materials MSc degree programmes at Loughborough University
- 2016 Chairman of RIEG Conference "Innovations in Rubber Design", London, UK
- 2014 Chairman of the global conference "RubberCon 2014", Manchester, UK
- 2012 - International Rubber Conference Organisation (IRCO) UK Delegate
- 2010 - Chairman of the IOM3 Elastomer Group (previously known as Rubber in Engineering Group)
- 2010 - Fellow of the Institute of Materials, Mining and Minerals (FIMMM)
- 2010 - 2018 Scientific Advisory Committee of the Materials Knowledge Transfer Network
- 2009 - Fellow of the Higher Education Academy (FHEA)
- 2003 Chair of the RIEG meeting on Elastomer as an Electrical Connection (London, Dec 2003)
- Chair of the European Conference on Constitutive Models for Rubber (London, Sep 2003)
- Chair of the Institute of Physics / RIEG conference on Fracture of Polymers (London)
- 2001 - Member of the Polymer Society Board of the IOM3.
- 2001 - Co-chairman of the Rubber in Engineering Group (RIEG) of the IOM3
- 2001 - Member of the American Chemical Society: Rubber Division

Grant Awards since 2016 as Principal Investigator

Sponsor	Collaborator	Value	Grant	Grant	End Date
SRI	Declan Carolan	£ 163,816	PhD Sponsorship	SEMR1J9R	31/03/2029
Continental Tires	Dimitrios Papageorgiou	£ 161,268	PhD Sponsorship	SEMP1C4R	30/09/2028
Aston Martin F1	Keizo Akutagawa	£ 161,268	PhD Sponsorship	SEML1L9R	30/09/2028
SLB	Dimitrios Papageorgiou	£ 133,219	PhD Sponsorship	SEMR1J4R	30/06/2028
Birla Carbon	Wei Tan	£ 159,453	PhD Sponsorship	SEMR1J7R	30/06/2028
SRI	Keizo Akutagawa	£ 125,155	PhD Sponsorship	SEMR1G7R	19/03/2027
Bridgestone	Keizo Akutagawa	£ 4,000	PhD top up	SEMR1K1R	30/09/2026
Aston Martin F1	Keizo Akutagawa	£ 135,655	PhD Sponsorship	SEML1J8R	31/12/2025
EPSRC	Biqiong Chen (QUB)	£ 401,990	PDRA	SEMA1T1R	12/10/2025
Bridgestone	Keizo Akutagawa	£ 4,000	PhD top up	SEMR1J2R	30/09/2025
EPSRC / Case (Schlumberger)	Dimitrios Papageorgiou	£ 87,696	PhD Sponsorship	SEMA1Q2R	30/09/2025
EPSRC / Case (Schlumberger)	Dimitrios Papageorgiou	£ 87,696	PhD Sponsorship	SEMA1Q2R	30/09/2025
Schlumberger (top up)	Dimitrios Papageorgiou	£ 30,594	CASE top up	SEMW1B2R	30/09/2025
Schlumberger (top up)	Dimitrios Papageorgiou	£ 30,594	CASE top up	SEMW1B3R	20/09/2025
Bridgestone	Keizo Akutagawa	£ 4,409	PhD top up	SEMR1H7R	30/09/2024
RAEng	Andrew Lewis	£ 30,000	Visiting Professor	SEMF1G3R	31/07/2023
Bridgestone	Keizo Akutagawa	£ 4,948	PhD top up	SEMR1H1R	30/09/2023
AHRC / London C. of Fashion	Emiliano Bilotti	£ 345,900	3 x PDRA	SEME1A1R	31/03/2023
EU - Horizon 2020	Nicola Pugno	£ 285,861	4 PhD Sponsorship	SEMN1H5R	31/03/2023
Birla Carbon	Nicola Pugno	£ 120,000	PhD Sponsorship	SEMR1F6R	31/01/2023
Bridgestone	Federico Carpi	£ 5,768	PhD top up	SEMR1G6R	30/09/2022
Weir Group	Julien Gautrot	£ 70,000	PhD Sponsorship	SEML1H9R	30/04/2022
Bridgestone	Federico Carpi	£ 5,982	PhD top up	SEMR1G2R	30/09/2021
Infineum UK Ltd	Remzi Becer	£ 90,000	PhD Sponsorship	SEML1G9R	31/08/2021
Schlumberger	Nicola Pugno	£ 70,000	PhD Sponsorship	SEMR1E5R	21/03/2021
Schlumberger	Nicola Pugno	£ 148,000	PhD Sponsorship	SEMR1E4R	21/03/2021
Bridgestone	Nicola Pugno	£ 6,224	PhD top up	SEMR1F9R	30/09/2020
EPSRC / CASE (Schlumberger)	Emiliano Bilotti	£ 80,670	PhD Sponsorship	SEMA1H1R	30/09/2020
Bridgestone	Ettore Barbieri	£ 5,767	PhD top up	SEMR1F2R	30/09/2019
Schlumberger (CASE top up)	Emiliano Bilotti	£ 26,890	CASE top up	SEMW1A5R	30/09/2019
Cameron Corporation	Lorenzo Botto	£ 34,532	PDRA	SEMR1F4R	23/03/2019
EU H2020 ITN - MICTACT	Federico Carpi	£ 205,368	PDRA	SEMN1D7R	31/12/2018
Bridgestone	Nicola Pugno	£ 5,667	PhD top up	SEMR1E1R	30/09/2018
Jaguar Land Rover	Ettore Barbieri	£ 105,000	PhD Sponsorship	SEML1C6R	01/03/2018
Bridgestone	Ettore Barbieri	£ 5,725	PhD top up	SEMR1C9R	30/09/2017
NGF Europe	Emiliano Bilotti	£ 48,000	PhD top up	SEML1C5R	30/09/2017
Cameron	Emiliano Bilotti	£ 105,000	PhD Sponsorship	SEML1C4R	21/09/2017
Schlumberger	Ettore Barbieri	£ 50,030	PDRA	SEML1D3R	31/05/2017
ARTIS	Lorenzo Botto	£ 8,500	PDRA	SEML1D4R	31/05/2017
EPSRC / CASE (Hyundai)	Lorenzo Botto	£ 71,760	PhD Sponsorship	SEMA1E7R	31/03/2017
Bridgestone	Mario Orsi	£ 4,016	PhD top up	SEMR1C7R	30/09/2016
ARTIS	Federico Carpi	£ 36,000	PhD top up	SEML1B3R	30/09/2016
NPL	Federico Carpi	£ 60,000	PhD top up	SEML1B6R	30/09/2016
Hyundai	Ton Peijs	£ 83,184	PDRA	SEMR1B3R	31/05/2016
Cabot Corp	Emiliano Bilotti	£ 70,000	PhD Sponsorship	SEML1B5R	30/04/2016
Sumitomo	Emiliano Bilotti	£ 7,207	PDRA	SEMR1C6R	28/02/2016

Grant Awards as Co-Investigator

Sponsor	Collaborator	Value	Grant	Grant	End Date
RAEng	Emiliano Bilotti	£ 109,804	Industrial Fellowship	SEMF1G4R	22/01/2023
Innovate UK / LMK Thermosafe	Emiliano Bilotti	£ 206,000	KTP Associate	SEMS1A7R	01/03/2018

Awards and Honours

- 2024 T B Marsden Professional Medal of the IOM3
- 2021 George Stafford Whitby Award for Distinguished Teaching & Research by the American Chemical Society
- 2020 QMUL Student Union Employability Enhancement Award
- 2019 Engineering Excellence Award winner at Innovate UK's 2019 Knowledge Transfer Partnership Awards
- 2010 Rubber Foundation Lecture of the Polymer Society of the IOM3
- 2010 Sparks Thomas Prize awarded for rubber research by the American Chemical Society
- 2009 Awarded the Fellowship of the Higher Education Academy
- 2009 Awarded a National Teaching Fellowship
- 2009 Colwyn Medal awarded for rubber research by the IOM3

PhD Examination

Since 2002 I have examined 57 PhD candidates including 20 from QMUL, 4 at Manchester University, 3 at DIT (Ireland), KTH (Sweden), Cambridge and UCL, 2 from Nottingham, Loughborough, Southampton, Sheffield, Swansea, Twente (The Netherlands), and once each from Bath University, Tampere University (Finland), University of Malaya (Malaysia), Cranfield University, University of Arts London, Brunel University, Bristol University, University of Trento (Italy) and Universität Halle (Germany)

Previous Management Responsibilities at Queen Mary University of London (QMUL)

- 1995 – 2007 IT Systems Champion in Materials Department
- 1996 – 2001 Director of Recruitment in Materials Department
- 2000 – 2006 Deputy Head of the Materials Department
- 2001 – 2004 Director of Studies in the Materials Department
- 2004 – 2006 Director of External Relations in the Materials Department
- 2007 - 2010 Director of Student Recruitment in SEMS
- 2008 – 2011, 2012-2016 Chair of the Materials Discipline Teaching Group
- 2016 – 2017 & 2018-2019 Chair of Materials Division
- 2010 – 2021 Director of Industrial Engagement in SEMS

I have also served on a wide range of QMUL and Faculty committees including establishing and chairing the faculty's 'Enhancing Student Employability Group'. I served on Senate for 12 years, the Enterprise, Entrepreneurship and Employability Advisory Group, the Vice-Principal's Teaching and Learning Advisory Group, the Engineering and Mathematical Science Faculty Board, several different incarnations of QMUL's Teaching and Learning Committee, the Costing and Pricing Group, the Science and Engineering Foundation Programme Management Board, the Widening Participation Forum, the Institutional Audit Planning Group, the Faculty's Communications Group, the Recruitment Forum and various different Space and Resources Committees. I have supported the selection panels for the various Drapers Awards, Prizes and Fellowship schemes that sought to recognise and encourage teaching excellence and provide funding for educational innovations. I managed the strategic link with City University from 2002-2008, which required all their Engineering Materials modules to be delivered by QMUL staff. I was the Exam Board Chair and served on the Discipline Teaching Group for the programme on "Design and Innovation" that we ran jointly with Goldsmiths.

Journal / Peer Reviewed Papers on WOS or SCOPUS

1. Kunal Manna, Chaoying Wan, Jaipal Gupta, James J.C. Busfield, Biqiong Chen and Ton Peijs "Microstructural Characterization of Ball-Milled Biochar and Its Reinforcing Efficiency in Biobased Thermoplastic Polyurethane through Preferential Embedment in the Soft Segment" *ACS Sustainable Resource Management* (2025), <https://doi.org/10.1021/acssusresmgt.5c00225>
2. María José Munguía Romero, Veronika Kapsali, Li Wang & James JC Busfield "An analysis of sustainability and performance indicators in Eco-Conscious trainers' brands." *Scientific Reports* (2025) 15, 21581 <https://doi.org/10.1038/s41598-025-04186-y>
3. Man Zhang, Keren Zhou, Theo Saunders, Gang Wang, Kresse Wesling, Jianguo Liu, James Busfield, Emiliano Bilotti, and Haixue Yan "Low cost small scale recycling aluminium cans for energy conservation and environmental sustainability" *Environmental Technology* (2025) 2509994 <https://doi.org/10.1080/09593330.2025.2509994>
4. Aaron M. Duncan, Keizo Akutagawa, Dimitrios G. Papageorgiou, Julien L. Ramier and James J.C. Busfield "A Unified Equation for Predicting Crack Growth in Rubber Composites Across All Crack Growth Rates" *Polymers* (2025) 17, 1357 <https://doi.org/10.3390/polym17101357>
5. Sara Naderizadeh, Anna Faggionato, Muhammad Umar Nazir, Rosario Mascolo, Mohammad Mahbubul Hassan, Emiliano Bilotti and James JC Busfield "The Thermal and Mechanical Performance of Leather Waste-Filled Bio-Based Thermoplastic Polyurethane Composites" *Polymers* (2025) 17, 1202 <https://doi.org/10.3390/polym17091202>
6. Lichang Lu, Hongxu Guo, Ignacio Martin-Fabiani, Ye Zhou, Helen Willcock, Goran T. Vladislavljević, James JC Busfield, Emiliano Bilotti, Ton Peijs, Han Zhang, Yi Liu "Recent Advances and Applications of Flexible PhaseChange Composites" *EcoMat* (2025) 7:e70004 <https://doi.org/10.1002/eom2.70004>
7. Afni Restasari, Anureet Kaur, Sara Naderizadeh, Xin Qi, Keizo Akutagawa, Richard J Spontak, James JC Busfield, Wei Tan "Effect of heating rate on thermal behaviour of plasticised hard polyurethane-urea" *Journal of Physics: Conference Series* (2005) 2945 (1), 012047 <https://doi.org/10.1088/1742-6596/2945/1/012047>
8. AM Duncan, K Akutagawa, JL Ramier, JJC Busfield "Novel approach to modelling chemical stress relaxation using finite element analysis" *Constitutive Models for Rubbers XIII* (2025) 271-277
9. E Koliolios, JJC Busfield, S Nakano, T Kawamura "Adhesive properties of tyre tread smear wear and its link to transfer layer deposition onto road surfaces" *Constitutive Models for Rubbers XIII* (2025) 121-126
10. RJ Windslow, TW Hohenberger, JJC Busfield "Evaluating the cavitation of a penny shaped flaw under hydrostatic tension through fracture mechanics" *Constitutive Models for Rubbers XIII* (2025) 217-222
11. RS Patel, GD Moggridge, RJ Windslow, TW Hohenberger, JJC Busfield "Finite element modelling for fatigue in polymer heart valves" *Constitutive Models for Rubbers XIII* (2025) 309-315
12. L Kari, M Vizcaíno-Vergara, JJC Busfield "Energy flow in a filled rubber isolator at physical room temperature ageing" *Constitutive Models for Rubbers XIII* (2025) 284-288
13. E.H. Plaschka, K. Akutagawa, E. Di Federico, J.J.C. Busfield "Developing a More Representative Friction and Wear Simulator for Tire Tread Compounds" *Polymer Testing* (2025) 108688 <https://doi.org/10.1016/j.polymertesting.2025.108688>
14. William Amoako Kyei-Manu, Lewis B Tunnicliffe, Charles R Herd, Keizo Akutagawa, Radek Stoček, James JC Busfield "Effect of carbon black properties on cut and chip wear of natural rubber." *Wear* (2025) 205673 <https://doi.org/10.1016/j.wear.2024.205673>
15. Muhammad Umar Nazir, Rosario Mascolo, Phil Bouic, Mohammad Mahbubul Hassan, Jane Harris, Sara Naderizadeh, James J.C. Busfield, Han Zhang, Dimitrios Papageorgiou, Emiliano Bilotti "Upcycling leather waste: The effect of leather type and aspect ratio on the performance of thermoplastic polyurethane composites" *Sustainable Materials and Technologies* (2025) 43, e01221, <https://doi.org/10.1016/j.susmat.2024.e01221>
16. Anureet Kaur, Meet M. Fefar, Thomas Griggs, Keizo Akutagawa, Biqiong Chen, James J. C. Busfield "Recyclable Sulfur Cured Natural Rubber With Controlled Disulfide Metathesis." *Communications Materials* (2024) 5, 212, <https://doi.org/10.1038/s43246-024-00651-9>
17. Yong Pang, James Busfield and Tao Liu "Ultra-soft cellular solids inspired by marine mussel plaques: scaling of the mechanical properties" *Proc R Soc A* 480: (2024) 257, <http://doi.org/10.1098/rspa.2024.0257>
18. Sara Naderizadeh, Giovanni Santagiuliana, Afni Restasari, Wei Tu, Emiliano Bilotti, James JC Busfield "Optimising Polyurethane/CNTs Piezoresistive Pressure Sensors by Varying the Modulus of the Polymer

- Matrix" Composites Science and Technology (2024) 110614, <https://doi.org/10.1016/j.compscitech.2024.110614>
19. Afni Restasari, Sara Naderizadeh, Anureet Kaur, Keizo Akutagawa, James Busfield, Wei Tan "Characterisation of Polyurethane-urea as Leading-Edge Erosion Resistant Materials of Wind Turbine Blades" IOP Conf. Series: Earth Environ. Sci. 1344 012015 <https://doi.org/10.1088/1755-1315/1344/1/012015>
 20. W.A. Kyei-Manu, L.B. Tunnicliffe, C.R. Herd, K. Akutagawa, O. Kratina, R. Stoček and J.J.C. Busfield "Effect of Carbon Black on Heat Build-up and Energy Dissipation in Rubber Materials" Advances in Polymer Science (2024) https://doi.org/10.1007/12_2024_171
 21. E. Koliolios, S. Nakano, T. Kawamura, J.J.C. Busfield "Elucidation of smear wear layer structure and ageing mechanisms of filled tyre tread compounds" Polymer (2024) 300, 126982, <https://doi.org/10.1016/j.polymer.2024.126982>
 22. Jean-Benoit Le Cam, William Amoako Kyei-Manu, Adel Tayeb, Pierre-Antoine Albouy, James J.C. Busfield "Strain-induced crystallisation of reinforced elastomers using surface calorimetry" – Polymer Testing (2024) 108341, <https://doi.org/10.1016/j.polymertesting.2024.108341>
 23. Yinping Tao, Ryuichi Tashiro, Shigeki Yonezawa, Christopher A. Stevens, Emiliano Bilotti & James J.C. Busfield "Quasi-static bending fatigue of carbon cord-rubber composites used in timing belts" Rubber Chemistry and Technology (2023) <https://doi.org/10.5254/rct.23.76985>
 24. Guangchang Wu; Paul Sotta; Menglong Huang; Lewis B Tunnicliffe; James JC Busfield "Characterisation of Sticky Debris Generated During Smear Wear" Rubber Chemistry and Technology (2023) <https://doi.org/10.5254/rct-23.236012>
 25. Menglong Huang, Lewis B Tunnicliffe, Shibai Liao, Bin Yang, Haixue Yan and James JC Busfield "Broadband Dielectric Characterization of Carbon Black Reinforced Natural Rubber" Rubber Chemistry and Technology, (2023) <https://doi.org/10.5254/rct.23.76983>
 26. Richard J Windslow, Aaron M Duncan, Travis W. Hohenberger and James JC Busfield "Evaluating the Formation and Propagation Energy of a Trouser Tear specimen" Rubber Chemistry and Technology, (2023) <https://doi.org/10.5254/RCT-D-23-00010>
 27. Giacomo Sasso, Nicola Pugno, James JC Busfield, Federico Carpi "Soft robotic patterning of liquids" Scientific Reports (2023) 13, 15739 <https://doi.org/10.1038/s41598-023-41755-5>
 28. Aaron M. Duncan, Keizo Akutagawa, Julien L. Ramier & James J.C. Busfield "Improved Dual Network Model for Aging of Rubber Composites under Set Strains" Macromolecules (2023) <https://doi.org/10.1021/acs.macromol.3c01131>
 29. Mohammad Mahbubul Hassan, Jane Harris, James Busfield & Emiliano Bilotti "A review of the green chemistry approaches to leather dehairing and tanning in imparting sustainable leather manufacturing" Green Chemistry (2023) <https://doi.org/10.1039/D3GC02948D>
 30. Anureet Kaur, Julien E. Gautrot, Keizo Akutagawa, Douglas Watson, Alan Bickley and James J. C. Busfield "Thiyl radical induced cis/trans isomerism in double bond containing elastomers" RSC Advances (2023). 13, 23967 <https://doi.org/10.1039/D3RA04157C>
 31. Sara Naderizadeh, Giovanni Santagiuliana, Wei Tu, Derek Marsh, Emiliano Bilotti, James JC Busfield "Piezoresistive Elastomer Composites Used for Pressure Sensing" IEEE Sensors Journal (2023), 23 (16), 18013 <https://doi.org/10.1109/JSEN.2023.3292239>
 32. Seyed Kamal Jalali, James Busfield & Nicola Pugno "A Micromechanics Model for Rubber Blends Filled by a Nano-Reinforced Devulcanized Recycled Rubber: Application in the Automotive Industry" International Journal of Automotive Technology (2023), 24, 983; DOI 10.1007/s12239-023-0080-z
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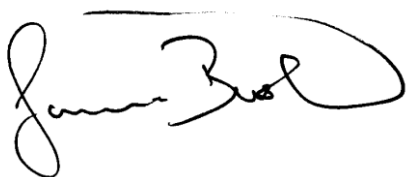
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A handwritten signature in black ink, appearing to read 'James Busfield', with a large, stylized loop at the end.