CV: KUNAL MASANIA

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Date of birth: 22/03/1983, Nationality: British
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CURRENT POSITION

2021 – present Associate Professor I tenured
Faculty of Aerospace Engineering, TU Delft, NL

PREVIOUS POSITIONS

2020 – 2021 Associate Professor II tenure track (tenured after 1yr10m)
Faculty of Aerospace Engineering, TU Delft, NL
2016 – 2019 Senior Scientist
Department of Materials, ETH Zürich, CH
2011 – 2015 Group Leader
Faculty of Engineering, University of Applied Sciences and Arts, Northwestern Switzerland (FHNW), CH

EDUCATION

2010 PhD DIC, Department of Mechanical Engineering, Imperial College London, UK
Supervisors: Prof. Ambrose Taylor and Prof. Tony Kinloch (**Nominated Unwin Prize**)
2006 MSc DIC, Department of Aeronautics & Department of Chemical Engineering, Imperial College London, UK (**Awarded DSTL Prize best thesis**)

RESEARCH GROUP

-Early-stage researchers: 7 Postdoc, 11 PhD students and 10 Master thesis students at TU Delft, NL. Currently 33% female representation in our group.

SOCIETAL IMPACT

-5 Patents and 2 co-founded start-ups with PhDs Dr Gantenbein, NematX AG and Dr Kleger, sallea AG.

TEACHING ACTIVITIES

2024 Team Manager of the TU Delft SuMoth Challenge, TU Delft, NL
2023 DoSChem Department of Chemistry Summer School, Vienna, AT
2023 Biobased materials masterclass lecturer (Master) IDE, TU Delft, NL
2023 Track co-ordinator for Materials & Manufacturing (Master), TU Delft, NL
2022 Multiscale Manufacturing of Advanced Composites Summer School
2020, 2021, 2024 Design synthesis exercise (Bachelor end group project), TU Delft, NL
2021, 2023 Lecturer – IDEA League computational design for AM summer school (Master), NL
2020- Course leader – Manufacturing of aerospace structures & materials (Master) and Additive manufacturing (Master), TU Delft, NL
2020- Guest Lecturer – Nanotechnology (Bachelor TNW), and Production of aerospace systems (Bachelor), Coach – Design synthesis exercise (Bachelor), TU Delft, NL
2006 – 2019 Advanced Composites at ETH Zürich, CH, FHNW, CH & Imperial College London, UK

OUTREACH

2023-2024 PhD student leading the Climate Fresk action at TU Delft, NL
2021 Associations Animath and Filles & Maths “Girls, Maths and IT Days” with the theme "L'Espace pour toutes!". At the “Space for all event”, PhD student presented to ~150 female high school students.
2017 Expert and coach for ETH Week, “Manufacturing the Future”, 2017.

2011 – 2019 Nationaler Zukunftstag (National future day) and Schweizer Jugend forscht (Swiss youth research) – led week long activities (skateboard engineering) with high school students.

ORGANISATION OF SCIENTIFIC MEETINGS (SELECTED)

2022 Local organising committee and AM session chair, European conference on composite materials (ECCM) & guest ass. editor for Functional Composite Materials Journal, Lausanne, CH
2022 Scientific organising committee Multiscale Manufacturing Summer School, NL
2021 Scientific Committee of the 2nd Int. Conf. on the AM of Composite Materials, FR (online)
2019 Organiser of SAMPE conference on the Additive Manufacturing of Composites, CH

INSTITUTIONAL RESPONSIBILITIES

2025 NWO Advisory Committee for Physics of Fluids and Soft Matter
2024/5 Evaluation panel of the NWO Veni Personal Grant
2024 EIT Manufacturing Net Zero Industry Workgroup
2023 TU Delft delegation for India research collaboration and MOUs with IIT Dehli/Mumbai and IISc
2023 Mentoring several academics (AS, AE, ME, IDE) and contributed to successful ERC StG/CoG and NWO personal grants of colleagues at TU Delft.
2023 Established academic TU Delft - ISAE SUPEAERO large scale collaboration
2023 Track coordinator Materials and Manufacturing: Aerospace Structures and Materials
2022 Founding member of a new TU Delft Additive Manufacturing Institute, NL
2022 Bioengineering Institute educational workgroup, TU Delft, NL
2021 ESA Materials Space Environmental Survivability workgroup, NL
2020 Member of Hiring Committees; 5 Assistant Professorships at TU Delft, NL

REVIEWING ACTIVITIES

-Reviewer of circa 25 manuscripts a year for journals such as Nature Materials, Nature Communications, Advanced Materials, ACS Applied Material Interfaces, Acta Biomaterialia, Advanced Material Technologies, Material Horizons, Additive Manufacturing, Materials and Design, Journal of Materials Science; Composites Science and Technology, Composites: Part A; Composite Structures; Composites: Part B, Journal of the Mechanical Behaviour of Biomedical Materials and Extreme Mechanics Letters.
-Evaluator of proposals for NWO NL, DFG DE, ANR FR & ERC EU.
-Several PhD committees in TU Delft NL and invited as examiner to ISAE SUPAERO FR, ETH Zürich CH, Imperial College. London UK, Uni Genoa IT and Uni Sud Bretagne FR defences.

AWARDS & PRIZES

2023 ERC Consolidator Grant Awardee, Project AM-IMATE
2022 Online Lecturer of the Year Award, Aerospace Engineering, TU Delft, NL
2020 & 2022 Spark award shortlist for best invention at ETH Zürich, CH
2020, 2021 & 2023 Delft Institute of Bioengineering seed funding for innovative projects, NL
2019 Top 3D Printing Industry research team shortlist, UK
2016 JEC Innovation Award for automated production of recyclable composite parts, FR
2015 ETH Foundation Career Seed grant, CH
2015 School of Engineering Excellence in Teaching prize, CH
2013 Advanced Manufacturing Fellowship, National Composites Centre, UK ***declined***
2013 School of Engineering Research Excellence prize, CH
2013 Best Poster at the 36th annual meeting of the Adhesion Society, US
2009 ACMA POLYCON and Composites '09 best technical paper, US
2009 Royal Academy of Engineering UK travel award

SPORTING ACHIEVEMENTS

Six Himalayan first ascents (e.g. "Lama Jimsa Kangri" and "Ranglana"), First ascent of "Storm o'clock" in the Anti-Atlas range, and completion of the Patrioulle des Glaciers, Zermatt to Verbier (2x).

FULL LIST OF PUBLICATIONS

69. Asai, G., Jansari, C., Lachaud, F., Masania, K. and Morlier, J. "Ecodesign of 3D volumetric fiber-composite structures with topology optimization", Composites Part A: Applied Science and Manufacturing, Special issue on Additive Manufacturing of Composites, (2024). Link
68. Houriet, C. Ulyanov, B., Pascoe, J.A. and Masania, K. "Wood-inspired interlocking junctions using 3D-printed liquid crystal polymers", Additive Manufacturing, (2024). Link
67. Yong, A. X. H., A. Endruweit, A. George, D. May, Y. A. Aksoy, M. A. Ali, T. Allen, T., Baral, P., Betteridge, C., Brauner, C., Caglar, B., Chuminelli, A., Cracknell, D., Dame, L., Dittmann, J., Dransfeld, C., Drapier, S., Garcia Manrique, J.A., Garrigou, E., Guilloux, A., Hubert, P., Ivens, J., Janzen, J., Khan, T., Kikuta, H., Kind, K., Laspalas, M., Lee, J., Liu, X., Lizaranzu, M., Lomov, S.V., Masania, K., Michaud, V., Middendorf, P., Miguel, S., Munoz, J., Narayana, S.S., Park, C.H., Pedoto, G., Pisupati, A., Sayinbas, D., Sousa, P., Sozer, P., Staal, J., Steinhardt, M., Teixido, H., Umer, R., Vincent, J.D., Werlen, V., and Yuksel, O. "Towards standardisation of the out-of-plane permeability measurement for reinforcement textiles." Composites Part A: Applied Science and Manufacturing, (2024). Link
66. Hartog, F. H., van Nesselrooij, M., van Campenhout, O.W.G., Schrijer, F.F.J., van Oudheusden, B.W. and Masania, K. "Turbulent Boundary Layers Over Substrates With Streamwise-Preferential Permeability". Physical Review Fluids, (2024). Link
65. Houriet, C., Claassen, E., Mascolo, C., Jöhri, H., Brieva, A., Szmolka, S., Vincent-Bonnieu, S., Suliga, A., Heeb, R., Gantenbein, S., Lafont, U., Rohr, T. and Masania, K., "3D Printing of Liquid Crystal Polymers for Space Applications". Advanced Materials Technologies, (2024). Link
64. Xu, Z., Tao, R., Masania, K. and de Freitas, S.T. "Biomimetic toughening design of 3D-printed polymeric structures: Enhancing toughness through sacrificial bonds and hidden lengths". Materials & Design, (2024). Link
63. Barbera, L., Korhonen, H., Masania, K. and Studart, A.R., 2024. "Phase-separating resins for light-based three-dimensional printing of oxide glasses". Scientific Reports, (2024). Link
62. Nettersheim, I.H., Sotelo, N.G., Verdonk, J.C. and Masania, K. "Engineered living composite materials". Composites Science and Technology, (2024). Link
61 Ammu, S.K., Chen, X., Ulcay, D.G., Sharma, S., Alijani, F., Steeneken, P.G., Groen, P. and Masania, K. "3D Printing of Lead-Free Piezoelectric Ultrasound Transducers". Advanced Materials Technologies, (2024). Link
60. Schyck, S., Marchese, P., Amani, M., Ablonczy, M., Spoelstra, L., Jones, M., Bathaei, Y., Bismarck, A. and Masania, K. "Harnessing Fungi Signaling in Living Composites". Global Challenges, (2024). Link
59. Cabau-Peinado, O., Winkelhorst, M., Stroek, R., de Kat Angelino, R., Straathof, A.J., Masania, K., Daran, J.M. and Jourdin, L.. "Microbial electrosynthesis from CO2 reaches productivity of syngas and chain elongation fermentations". Trends in Biotechnology. (2024) Link
58. Seshadri, B., Shammas, D., Hischier, I., Leschok, M., Masania, K., Dillenburger, B. and Schlüter, A.. "Three-Dimensionally Printed Hierarchal Sand Structures for Space Heating Applications". 3D Printing and Additive Manufacturing, (2024). Link
57. Barbera, L., Madrid-Wolff, J., Emma, R., Masania, K., Boniface, A., Loterie, D., Delrot, P., Moser, C. and Studart, A.R., "Multimaterial Volumetric Printing of Silica-Based Glasses". Advanced Material Technologies, (2024).Link
56. Fang, G., Zhang, T., Huang, Y., Zhang, Z., Masania, K. and Wang, C. "Exceptional mechanical performance by spatial printing with continuous fiber: Curved slicing, toolpath generation and physical verification". Additive Manufacturing, (2024). Link
55. Wang, H., Tao, J., Wu, Z., Weiland, K., Wang, Z., Masania, K. and Wang, B., "Fabrication of Living Entangled Network Composites Enabled by Mycelium". Advanced Science, (2024). Link
54. Houriet, C., Damodaran, V., Mascolo, C. Gantenbein, S., Peeters, D. and Masania, K. "Three-dimensional printing of flow-inspired anisotropic patterns with liquid crystalline polymers". Advanced Materials (2024). Link

53. Oh, J.J., Ammu, S., Vriend, V.D., Kieffer, R., Kleiner, F.H., Balasubramanian, S., Karana, E., Masania, K. and Aubin-Tam, M.E., "Growth, Distribution, and Photosynthesis of Chlamydomonas Reinhardtii in 3D Hydrogels". Advanced Materials, (2024). Link
52. Seshadri, B., Morroni, D., Hischier, I., Masania, K. and Schlueter, A. "Projected energy savings of a 3D printed selective heat transfer facade" Journal of Physics: Conference Series (2023). Link
51. Gulmez, D.E., Maldonado, J., Masania, K., Sinke, J. and Dransfeld, C. "Quantification of structural response and edge orientation of Chopped Tape Thermoplastic Composites in net-shaped specimens", Composite Structures, (2023). Link
50. Seshadri, B., Hischier, I., Masania, K. and Schlueter, A. "3D Printed Liquid Crystal Polymer Thermosiphon for Heat Transfer under Vacuum", Advanced Material Technologies, (2023). Link
49. Masania, K., and Studart, A.R. "Research Briefing: Self-Regenerating Living Material Made of Printed Fungi", Nature Materials, (2022). Link
48. Gantenbein, S., Colucci, E., Käch, J., Trachsel, E., Coulter, F., Rühs, P.A., Masania, K., and Studart, A.R. "Three-dimensional Printing of Mycelium Hydrogels into Living Complex Materials", Nature Materials, (2022). Link
47. Chen, X., Ammu, S.K., Masania, K., Steeneken, P.G. and Alijani, F. "Diamagnetic Composites for High-Q Levitating Resonators". Advanced Science, p.2203619, (2022). Link
46. Woigk, W., Poloni, E., Grossman, M., Bouville, F., Masania, K., and Studart. "Nacre-like Composite with Superior Damping", PNAS, (2022). Link
45. Kleger, N., Simona F., Lee, S., Dénéréaz, C., Cihova, M., Paunović, N., Bao, Y., Leroux, J-C., Ferguson, S., Masania, K. and Studart, A.R. "Light-based Printing of Leachable Salt Molds for Facile Shaping of Complex Structures", Advanced Materials, (2022). Link
44. Woigk, W., Nagel, Y., Gantenbein, S., Coutler, F.B., Masania, K. and Studart, A.R. "Flax-based natural composites hierarchically reinforced by cast or printed carbon fibres", Composites Science and Technology, (2022). Link
43. Gurvits, L., Paragi, Z., Amils, R., van Bemmel, I., Boven, P., Casasola, V., Conway, J., Davelaar, J., Diez-Gonzalez, C., Falcke, H., Fender, R., Frey, S., Fromm, C.M., Gallego-Puyol, J.D., Garcia-Miro, C., Garrett, M., Giroletti, M., Godd, C., Gomez, J., Gucht, J., Guirado, J., Haiman, Z., Helmich, F., Hudson, B., Humphreys, E., Impellizzeri, V., Janssen, M., Kovalev, Y., Kramer, M., Lindqvist, M., Linz, H., Liuzzo, E., Lobanov, A., Lopez-Fernandez, I., Malo-Gomez, I., Masania, K., Mizuno, Y., Plavin, A., Rajan, R., Rezzolla, L., Roelofs, F., Ros, E., Rygl, K., Savolainen, T., Schuster, K., Venturi, T., Verkouter, H., de Vicente, P., Visser, P.N.A.M., Wiedner, M., Wielgus, M., Wiik, K., and Zensus, A. "The science case and challenges of space-borne sub-millimeter interferometry", Acta Astronautica, (2022). Link
42. Kleger, N., Minas, C., Bosshard, P., Masania, K., and Studart, A.R. "Hierarchical porous materials made by stereolithographic printing of light-sensitive emulsions", Scientific Reports, 11, 22316, (2021). Link
41. Gantenbein, S., Mascolo, C., Houriet, C., Zboray, R., Neels, A., Masania, K., Studart, A.R. "Spin-printing of liquid crystal polymer into recyclable and strong all-fibre materials", Advanced Functional Materials, 2104574, (2021). Link
40. Schreck, M., Kleger, N., Matter, F., Kwon, J., Tervoort, E., Masania, K., Studart, A.R., Niederberger, M. "Three-dimensionally printed scaffolds for photocatalytic nanoparticle-based aerogels", Small, 2104089, (2021). Link
39. Sandmeier, M., Paunovic, N., Conti, R., Hofmann, L., Wang, J., Luo, Z., Masania, K., Kleger, N., Coutler, F.B., Studart, A.R., Grützmacher, H., Leroux, J-C. and Bao, Y. "Solvent-Free 3D Printing Based on Biodegradable Polymeric Photoinitiators", ACS Macromolecules, (2021). Link
38. Frey, M., Schneider, L., Razi, H., Trachsel, E., Faude, E., Masania, K., Fratzl, P., Keplinger, T. and Burgert, I. "High-performance all-bio-based laminates derived from delignified wood", ACS Sustainability, (2021). Link

37. Yong, A.X.H., Aktas, A., May, D., Endruweit, A., Lomov, S.V., Advani, S., Hubert, P., Abaimov, S.G., Abliz, D., Akhatov, I., Ali, M.A., Allen, T., Berg, D.C., Bickerton, S., Brauner, C., Brütsch, D., Caglar, B., Caglar, H., Causse, P., Chiminelli, A., Cohades, A., Comas-Cardona, S., Danzi, M., Dittmann, J., Dransfeld, C., Ermanni, P., Fauster, E., Geroge, A., Graupner, R., Grishaev, V., Guilloux, A., Hancioglu,M., Harizi, W., Herman, T., Huang, W., Kabachi, M.A., Keller, A., Kind, K., Laspalas, M., Lebedev, O.V., Lizaranzu, M., Long, Masania, K., Michaud, V., Middendorf, P., Salvatori, D., Schubnel, R., Sharp, N., Sozer, N., Thomas, J., Trochu, F., Umer, R., Valette, J., Wang, J.H. and Willenbacher, B., "Out-of-plane permeability measurement for reinforcement textiles: A benchmark exercise", Composites Part A, p.10648,. (2021). Link
36. Paunović, N., Bao, Y., Coulter, F.B., Masania, K., Geks, A.K., Klein, K., Rafsanjani, A., Cadalbet, J., Kronen, P.W., Kleger, N., Karol, A., Luo, Z., Rüber, F., Brambilla, D., von Rechenberg, B., Franzen, D., Studart, A.R. and Leroux, J-C." Digital light 3D printing of customized bioresorbable airway stents with elastomeric properties", Science Advances, 7, (2021). Link
35. Yong, A.X.H., Aktas, A., May, D., Endruweit, A., Lomov, S.V., Advani, S., Hubert, P., Abaimov, S.G., Abliz, D., Akhatov, I., Ali, M.A., Allaoui, S., Allen, T., Berg, D.C., Bickerton, S., Caglar, B., Causse, P., Chiminelli, A., Comas-Cardona, S., Danzi, M., Dittmann, J., Dransfeld, C., Ermanni, P., Fauster, E., Geroge, A., Gillibert, J., Govignon, Q., Graupner, R., Grishaev, V., Guilloux, A., Kabachi, M.A., Keller, A., Kind, K., Large, D., Laspalas, M., Lebedev, O.V., Lizaranzu, M., Long, A.C., López, C., Masania, K., Michaud, V., Middendorf, P., Mitschang, P., Oosterom, S. van, Schubnel, R., Sharp, N., Sousa, P., Trouchu, F., Umer, R., Valette, J., and Wang, J.H. "Experimental characterisation of textile compaction response: a benchmark exercise", Composites Part A, p.106243, (2021). Link
34. Keller, A., Geissberger, R., Studer, J., Leone, F., Stefaniak, D., Pascoe, J-A., Dransfeld, C., and Masania, K. "Steel foil reinforced composites: Experimental and numerical study of strength plasticity and ply size effects", Materials and Design, 109302, (2021). Link
33. Woigk, W., Masania, K., Stork, F., Heusi, A., Poloni, E. and Studart, A.R. "Bio-Inspired Platelet-Reinforced Polymers with Enhanced Stiffness and Damping Behavior", ACS Applied Polymer Materials, 2 (8), 3557-3565, (2020). Link
32. Schadt, F., Rueppel, M., Brauner, C., Masania, K. and Dransfeld, C. "Nonlinear bending compliance of closed-section composite beam structures by local compression flange buckling", Composite Structures 239, (2020). Link
31. Koch, J., Gantenbein, S., Masania, K., Stark, W., Erlich, Y. and Grass, R. "DNA storage enables 3D printed functional materials with embedded memory", Nature Biotechnology, 38, 39-43 (2020). Link
30. Moore, D., Barbera, L., Masania K. and Studart, A.R. "Three-dimensional printing of multicomponent glasses using phase-separating molecular inks", Nature Materials, 19, 212-217 (2020). Link
29. Frey, M., Schneider, L., Masania, K., Keplinger, T. and Burgert, I. "Delignified wood - polymer interpenetrating composites exceeding the rule of mixtures", ACS Mat. Inter., 11, 38, 35305-35311 (2019). Link
28. Woigk, W., Fuentes, C.A., Rion, J., Hegemann, D., Van Vuure, A.W., Kramer, E., Dransfeld, C. and Masania, K. "All-cellulose natural fibre-reinforced thermoplastic composites", Composites Science and Technology, 183 (2019). Link
27. Kleger, N., Cihova, M., Masania, K., Studart, A.R. and Loeffler, J. "3D printing salt as a template for magnesium with structured porosity" Advanced Materials, 1903783 (2019). Link
26. Woigk, W., Fuentes, C.A., Rion, J., Hegemann, D., Dransfeld, C., Van Vuure, A.W. and Masania, K. "Interface properties on the mechanical performance of flax fibre thermoplastic composites", Composites Part A, 122 (2019): 8-17. Link
25. Studer, J., Dransfeld, C., Cano, J.J., Keller, A., Wink, M., Masania, K. and Fiedler, B. "Effect of fabric architecture, compaction and permeability on through thickness thermoplastic melt impregnation", Composites Part A, 122 (2019): 45-53. Link
24. Frey, M., Biffi, G., Adobes-Vidal, M., Zirkelbach, M., Wang, Y., Tu, K., Hirt, A.M., Masania, K., Burgert, I. and Keplinger, T. "Tunable wood by reversible interlocking and bioinspired mechanical gradients", Advanced Science 1802190, (2019). Link
23. Grossman, M., Pivovarov, D., Bouville, F., Dransfeld, C. Masania, K. and Studart, A.R. "Hierarchical toughening of nacre like composites" Advanced Functional Materials 1806800 (2019). Link.

22. Grossman, M., Bouville, F., Masania, K. and Studart, A. R. "Quantifying the role of mineral bridges on the fracture resistance of nacre-like composites", Proceedings of the National Academy of Sciences of the USA (2018): 1-6. Link
21. Gantenbein, S., Masania, K., Woigk, W., Sesseg, J., Tervoort, T. A. and Studart. A.R. "Three-dimensional printing of hierarchical liquid crystal polymer structures", Nature, 561 (2018): 226-230. Link
20. Fuentes, C.A., Zhang, Y., Guo, H., Woigk, W., Masania, K., Dransfeld, C., Seveno, D. and Van Vuure, A.W. "Predicting the adhesion strength of thermoplastic/glass interfaces from wetting measurements", Colloids and Surfaces A, 558 (2018): 280-290. Link
19. Keller, A., Dransfeld, C., and Masania, K. "Flow and heat transfer for cure optimisation of compression resin transfer moulding process with a highly reactive epoxy", Composites Part B: Engineering, 153 (2018): 167-175. Link
18. Guild, F.J., A.J. Kinloch, K. Masania, A.C. Taylor and Sprenger, S. "The Fracture of Thermosetting Polymers containing Silica Nanoparticles", Invitation Edition in memory of D.M.R. Taplin, Journal of Strength, Fracture and Complexity, 11 (2018): 137-148. Link
17. Leal, A.A., Neururer, O. Bian, A., Gooneie, A., Rupper, P., Masania, K., Dransfeld, C. and Hufenus, R. "Interfacial interactions in bicomponent polymer fibers", Polymer 142 (2018): 375-386. Link
16. Studer, J., Keller, A., Leone, F. Stefaniak, D., Dransfeld, C. and Masania, K. "Local reinforcement of aerospace structures using co-curing RTM of metal foil hybrid composites", Journal of Production Engineering, Hybrid Materials Special Issue (2018): 1-7. Link
15. Keller, A., Chong, H. M., Taylor, A. C., Dransfeld, C. and Masania, K., "Core-shell rubber nanoparticle reinforcement and processing of high toughness fast-curing epoxy composites". Composites Science and Technology, 147 (2017), 78-88. Link
14. Geissberger, R., Maldonado, J., Bahamonde, N., Keller, A., Dransfeld, C. and Masania, K. "Rheological modelling of thermoset composite processing", Composites Part B: Engineering, 124 (2017): 182-189. Link
13. Rueppel, M., Rion, J., Dransfeld, C. Fischer, C., and Masania, K. "Damping of carbon fibre and flax fibre angle-ply composite laminates", Composites Science and Technology 146 (2017): 1-9. Link
12. Grossman, M., Bouville, F., Erni, F., Masania, K., Libanori, R., and Studart, A. R. "Mineral nano-interconnectivity stiffens and toughens nacre-like composite materials". Advanced Materials 29, 1605039 (2017). Link
11. Keller A., Dransfeld, C., Taylor, A.C., Sprenger, S., Ritter, K., and Masania, K. "Cure kinetics of a fast cure epoxy with silica nanoparticles". JEC Journal Reaction Kinetics Special Issue, (2016). Link
10. Studer, J., Dransfeld, C., and Masania. K. "An analytical model for B-stage joining and co-curing of carbon fibre epoxy composites", Composites Part A: Applied Science and Manufacturing 87 (2016): 282-289. Link
9. Keller, A., Masania, K., Taylor, A.C. and Dransfeld. C. "Fast-curing epoxy polymers with silica nanoparticles: properties and rheo-kinetic modelling", Journal of Materials Science 51, (2016): 236-251. Link

During PhD at Imperial College London, all authors were listed alphabetically per the laboratory guideline (6 first author, 2 co-author publications from PhD).

8. Bray, D.J., Dittanet, P., Guild, F. J., Kinloch, A. J., Masania, K., Pearson, R. A. and Taylor, A. C., "The modelling of the toughening of epoxy polymers via silica nanoparticles: the effects of volume fraction and particle size", Polymer 54 (26), (2013): 7022-7032. Link
7. Bray, D.J., Gilmour, S., Guild, F., Hsieh, T.-H., Masania, K. and Taylor, A.C. "Quantifying nanoparticle dispersion: application of the Delaunay network for objective analysis of sample micrographs". Journal of Materials Science 46 (2011): 6437-6452. Link
6. Hsieh, T.-H., Kinloch, A.J., Masania, K., Taylor, A.C. and Sprenger, S. "The mechanisms and mechanics of the toughening of epoxy polymers modified with silica nanoparticles", Polymer 51 (2010) 6284-6294. Link

5. Masania, K. "Toughening mechanisms of silica nanoparticle-modified epoxy polymers", PhD Thesis (2010). Link
4. Giannakopoulos, G., Masania, K. and Taylor, A.C. "Toughening of epoxy using core–shell particles", Journal of Materials Science 46 (2010) 327-338. Link
3. Hsieh, T.H., Kinloch, A.J., Masania, K., Sohn Lee, J., Taylor, A.C. and Sprenger, S. "Erratum to: The toughness of epoxy polymers and fibre composites modified with rubber microparticles and silica nanoparticles", Journal of Materials Science 45 (2010): 4092-4092. Link
2. Hsieh, T.-H., Kinloch, A.J., Masania, K., Sohn Lee, J., Taylor, A.C. and Sprenger, S. "The toughness of epoxy polymers and fibre composites modified with rubber microparticles and silica nanoparticles", Journal of Materials Science 45 (2010) 1193-1210. Link
1. Kinloch, A.J., Masania, K., Taylor, A.C., Sprenger, S. and Egan, D. "The fracture of glass fibre reinforced epoxy composites using nanoparticle-modified matrices", Journal of Materials Science 43 (2008) 1151-1154. Link