

Dr. Joamin Gonzalez-Gutierrez, master
Chair of Polymer Processing (350)
Phone: 3541



Employment

Chair of Polymer Processing (350)

Montanuniversitaet Leoben (000)
Leoben
4 Mar 2015 → 28 Feb 2018

Chair of Polymer Processing (350)

Montanuniversitaet Leoben (000)
Leoben
1 Mar 2018 → 14 Jun 2018

Chair of Polymer Processing (350)

Montanuniversitaet Leoben (000)
Leoben
1 Mar 2020 → 3 Mar 2021

Chair of Polymer Processing (350)

Montanuniversitaet Leoben (000)
Leoben
15 Jun 2018 → 28 Feb 2020

Chair of Polymer Processing (350)

Montanuniversitaet Leoben (000)
Leoben
29 Feb 2020 → 3 Mar 2021

Chair of Polymer Processing (350)

Montanuniversitaet Leoben (000)
Leoben
4 Mar 2021 → 31 May 2021

Research output

Effect of metal particle size and powder volume fraction on the filling performance of powder injection moulded parts with a microtextured surface

Ammosova, L., Cano Cano, S., Schuschnigg, S., Kukla, C., Mönkkönen, K., Suvanto, M. & Gonzalez-Gutierrez, J., Nov 2021, In: Precision Engineering. 72.2021, November, p. 604-612 9 p.

Material extrusion additive manufacturing of multi-material components

Cano Cano, S., Valy, L., Liu, D., Maurer, P., Ma, N., Czernilofsky, F., Schuschnigg, S., Sui, G., Kitzmantel, M., Kukla, C. & Gonzalez-Gutierrez, J., 15 Sep 2021, *29th Leoben-Conference on Polymer Engineering & Science*. p. 184 1 p.

Bending Properties of Lightweight Copper Specimens with Different Infill Patterns Produced by Material Extrusion Additive Manufacturing, Solvent Debinding and Sintering

Gonzalez-Gutierrez, J., Cano Cano, S., Ecker, J. V., Kitzmantel, M., Arbeiter, F., Kukla, C. & Holzer, C., 6 Aug 2021, In: Applied Sciences (Switzerland). 11, 16

Indirect Additive Manufacturing Techniques for Metal Parts: Binder-Based Additive Manufacturing Techniques

Gonzalez-Gutierrez, J., 15 Apr 2021, *Reference Module in Materials Science and Materials Engineering*. The Netherlands: Elsevier

Functionally graded additive manufacturing

Pei, E., Rumana Kabir, I., Godec, D., Gonzalez-Gutierrez, J. & Nordin, A., 9 Apr 2021, *Additive Manufacturing with Functionalized Nanomaterials*. Amsterdam, Netherlands, p. 35-54 20 p.

Resins for Frontal Photopolymerization: Combining depth-cure and tunable mechanical properties

Ebner, C., Mitterer, J., Gonzalez-Gutierrez, J., Rieß, G. & Kern, W., 5 Feb 2021, In: *Materials*. 14.2021, 4, 10 p., 743.

Powder content in powder extrusion moulding of tool steel: Dimensional stability, shrinkage and hardness

Gonzalez-Gutierrez, J., Thompson, Y., Handl, D., Cano Cano, S., Schuschnigg, S., Felfer, P., Kukla, C., Holzer, C. & Burkhardt, C., 15 Jan 2021, In: *Materials letters*. 283, January 2021, 5 p., 128909.

Material extrusion additively manufactured alumina monolithic structures to improve the efficiency of plasma-catalytic oxidation of toluene

Li, T., Gonzalez-Gutierrez, J., Raguz, I., Holzer, C., Li, M., Cheng, P., Kitzmantel, M., Shi, L. & Huang, L., Jan 2021, In: *Additive Manufacturing*. 37, January 2021, 9 p., 101700.

Processing Conditions of a Medical Grade Poly(Methyl Methacrylate) with the Arburg Plastic Freeforming Additive Manufacturing Process

Hentschel, L., Kynast, F., Petersmann, S., Holzer, C. & Gonzalez-Gutierrez, J., 2 Nov 2020, In: *Polymers*. 12, 11, p. 1-15 15 p., 2677.

Rheological Behaviour of Highly Filled Materials for Injection Moulding and Additive Manufacturing: Effect of Particle Material and Loading

Bek, M., Gonzalez-Gutierrez, J., Kukla, C., Pušnik Crešnar, K., Maroh, B. & Slemenik Perše, L., 2 Nov 2020, In: *Applied Sciences*. 10, 22, p. 1-23 23 p., 7993.

Factors Affecting the Properties of POM-based Feedstocks for Fused Filament Fabrication/FFF

Kukla, C., Hentschel, L., Cano Cano, S., Kitzmantel, M., Holzer, C. & Gonzalez-Gutierrez, J., 5 Oct 2020. 6 p.

Eingliederung von Additiven Fertigungstechnologien in einen klinischen Prozess zur Herstellung von medizinischen Implantaten

Hentschel, L., Gonzalez-Gutierrez, J. & Holzer, C., 1 Oct 2020, In: *Jahresmagazin Kunststofftechnik : Ingenieurwissenschaften ... : im Fokus*. 2020, p. 56-61

Influence of the Infill Orientation on the Properties of Zirconia Parts Produced by Fused Filament Fabrication

Cano, S., Lube, T., Huber, P., Gallego, A., Naranjo, J. A., Berges, C., Schuschnigg, S., Herranz, G., Kukla, C., Holzer, C. & Gonzalez-Gutierrez, J., 15 Jul 2020, In: *Materials*. 13, 14, 3158.

An Overview of Material Extrusion Troubleshooting

Loh, G. H., Pei, E., Gonzalez-Gutierrez, J. & Monzon, M., 11 Jul 2020, In: *Applied Sciences*. 10, 14, 28 p., 4776.

Research and Implementation of Axial 3D Printing Method for PLA Pipes

Zhang, H., Zhong, W., Hu, Q., Aburaia, M., Gonzalez-Gutierrez, J. & Lammer, H., 7 Jul 2020, In: *Applied Sciences*. 10.2020, 13, 19 p., 4680.

A Production Method for Standardized Continuous Fiber Reinforced FFF Filament

Aburaia, M., Bucher, C., Lackner, M., Gonzalez-Gutierrez, J., Zhang, H. & Lammer, H., 20 May 2020, In: *Biomaterials and Medical Applications*. 4.2020, 1, 9 p.

Qualifizierung von Materialien für medizinische Anwendungen mittels des Arburg Freeformers

Holzer, C., Hentschel, L., Kynast, F., Schuschnigg, S. & Gonzalez-Gutierrez, J., 15 May 2020. 2 p.

Modification of Interfacial Interactions in Ceramic-Polymer Nanocomposites by Grafting: Morphology and Properties for Powder Injection Molding and Additive Manufacturing

Cano Cano, S., Gooneie, A., Kukla, C., Rieß, G., Holzer, C. & Gonzalez-Gutierrez, J., 21 Feb 2020, In: Applied Sciences. 10.2020, 4, 18 p., 1471.

Optimization of the 3D Printing Parameters for Tensile Properties of Specimens Produced by Fused Filament Fabrication of 17-4PH Stainless Steel

Godec, D., Cano Cano, S., Holzer, C. & Gonzalez-Gutierrez, J., 8 Feb 2020, In: Materials. 13.2020, 3, 23 p., 774.

Destroying or Enhancing the Mechanical Properties of Carbon Fibre Filled PA12 filaments for Additive Manufacturing?

Holzer, C., Gonzalez-Gutierrez, J., Cano Cano, S., Schuschnigg, S., Arbeiter, F., Liu, D., Wuzella, G. H. & Lammer, H., 7 Nov 2019, p. 59-59. 1 p.

Influence of stearic acid in feedstocks for FFF and PIM

Kukla, C., Cano Cano, S., Holzer, C. & Gonzalez-Gutierrez, J., 16 Oct 2019.

Material extrusion-based additive manufacturing of polypropylene: A review on how to improve dimensional inaccuracy and warpage

Spörk, M., Holzer, C. & Gonzalez-Gutierrez, J., 16 Oct 2019, In: Journal of Applied Polymer Science. 137, 12, 16 p., 48545.

Steel parts produced by material extrusion additive manufacturing, solvent debinding and sintering

Gonzalez-Gutierrez, J., Thompson, Y., Cano Cano, S., Felfer, P., Kukla, C. & Holzer, C., 30 Sep 2019, *Materials Science and Technology 2019 Conference Proceedings*. p. 264-266 3 p. 139-137130

Fused filament fabrication, debinding and sintering as a low cost additive manufacturing method of 316L stainless steel

Thompson, Y., Gonzalez-Gutierrez, J., Kukla, C. & Felfer, P., 9 Sep 2019, In: Additive Manufacturing. 30.2019, December, 8 p., 100861.

Mechanical Recyclability of Polypropylene Composites Produced by Material Extrusion-Based Additive Manufacturing

Spörk, M., Arbeiter, F., Raguz, I., Holzer, C. & Gonzalez-Gutierrez, J., 7 Aug 2019, In: Polymers / Molecular Diversity Preservation International. 11, 18 p., 1318.

Fabrication and properties of extrusion-based 3D-printed hardmetal and cermet components

Lengauer, W., Duretek, I., Fürst, M., Schwarz, V., Gonzalez-Gutierrez, J., Schuschnigg, S., Kukla, C., Kitzmantel, M., Neubauer, E., Lieberwirth, C. & Morrison, V., 1 Aug 2019, In: International Journal of Refractory Metals and Hard Materials. 82.2019, August, p. 141-149 9 p.

Fused Filament Fabrication of Metals and Ceramics for Special Applications

Cano Cano, S., Holzer, C., Gonzalez-Gutierrez, J., Kukla, C. & Schuschnigg, S., 1 Aug 2019, 9 ed. Leykam Buchverlag. 15 p. (Industrial Management; no. 9)

Post processing of polymeric cranial implants produced by material extrusion based additive manufacturing

Holzer, C., Gonzalez-Gutierrez, J., Petersmann, S., Pichelmayer, M. & von Campe, G., 9 Jul 2019. 1 p.

A trouble-free first layer adhesion for polypropylene-based materials in material extrusion-based additive manufacturing

Spörk, M., Gonzalez-Gutierrez, J., Lichal, C., Cajner, H., Berger-Weber, G., Schuschnigg, S., Cardon, L. & Holzer, C., 31 May 2019, p. 327. 1 p.

Debinding behaviour of feedstock for material extrusion additive manufacturing of zirconia

Kukla, C., Cano Cano, S., Kaylani, D., Schuschnigg, S., Holzer, C. & Gonzalez-Gutierrez, J., 15 May 2019, In: Powder Metallurgy. 2019, 9 p.

Rheological behaviour of highly-filled polymers for Metal Injection Moulding

Kukla, C., Slemenik Perše, L., Bek, M., Gonzalez-Gutierrez, J. & Holzer, C., 9 Apr 2019. 1 p.

Optimisation of the interfacial bonding in polypropylene filled with different types of glass spheres produced by extrusion-based additive manufacturing

Spörk, M. & Gonzalez-Gutierrez, J., 8 Apr 2019, p. 87-87. 1 p.

Rheological behaviour of highly-filled polymers for Metal Injection Moulding

Bek, M., Gonzalez-Gutierrez, J., Slemenik Perše, L., Holzer, C. & Kukla, C., 8 Apr 2019, p. 117-117. 1 p.

Tensile properties of sintered 17-4PH stainless steel fabricated by material extrusion additive manufacturing

Gonzalez-Gutierrez, J., Arbeiter, F., Schlauf, T., Kukla, C. & Holzer, C., 8 Apr 2019, In: Materials letters. 248.2019, 1 August, p. 165-168 4 p.

Filament-extrusion 3D printing of hardmetal and cermet parts

Lengauer, W., Duretek, I., Fürst, M., Gonzalez-Gutierrez, J., Schuschnigg, S. & Kukla, C., 25 Mar 2019, p. 77-78. 2 p.

Additive manufacturing of zirconia parts by fused filament fabrication and solvent debinding: Selection of binder formulation

Cano Cano, S., Gonzalez-Gutierrez, J., Sapkota, J., Spörk, M., Arbeiter, F., Schuschnigg, S., Holzer, C. & Kukla, C., 1 Mar 2019, In: Additive Manufacturing. 26.2019, March, p. 117–128 12 p.

Design and fabrication of monolithic catalyst for plasma-catalytic oxidation of toluene

Huang, L., Zheng, M., Jiang, W., Shi, L., Gonzalez-Gutierrez, J. & Holzer, C., 20 Oct 2018. 1 p.

Rheology of Highly Filled Polymers

Kukla, C., Duretek, I., Gonzalez-Gutierrez, J. & Holzer, C., 3 Oct 2018, *Polymer Rheology*. Rivera-Armenta, J. L. & Salazar-Cruz, B. A. (eds.). London, United Kingdom, p. 153- 173 21 p.

Influence of filler types onto the viscosity of highly filled polymers.

Kukla, C., Slemenik Perše, L., Bek, M., Gonzalez-Gutierrez, J. & Holzer, C., 19 Sep 2018, *International Conference on Polymers and Moulds Innovations: Conference Proceedings*. Pontes, A. (ed.). Guimaraes, Portugal, Vol. 8. 6 p. P120

Rheology and mechanical properties of fats: Second Edition

Gonzalez-Gutierrez, J. & Scanlon, M. G., 14 Jun 2018, *Structure-Function Analysis of Edible Fats: Second Edition*. Marangoni, A. G. (ed.). 2 ed. United Kingdom, p. 119 - 168 50 p.

Adhesion of standard filament materials to different build platforms in material extrusion additive manufacturing

Schuschnigg, S., Gonzalez-Gutierrez, J., Spörk, M., Sapkota, J. & Holzer, C., 21 May 2018, *34 th International Conference of the Polymer Processing society*. Liu, S-J. (ed.). Taipei, Taiwan, Vol. 34. 1 p.

Additive Manufacturing of Metallic and Ceramic Components by the Material Extrusion of Highly-Filled Polymers: A Review and Future Perspectives

Gonzalez-Gutierrez, J., Cano Cano, S., Schuschnigg, S., Kukla, C., Sapkota, J. & Holzer, C., 18 May 2018, In: Materials. 11, p. 2-36 36 p., 840.

Optimisation of the Adhesion of Polypropylene-Based Materials during Extrusion-Based Additive Manufacturing

Spörk, M., Gonzalez-Gutierrez, J., Lichal, C., Cajner, H., Berger, G., Schuschnigg, S., Cardon, L. & Holzer, C., 2 May 2018, In: Polymers / Molecular Diversity Preservation International. 10, 490, 16 p.

Feedstocks for the Shaping-Debinding-Sintering Process of Multi Material Components

Cano Cano, S., Kukla, C., Kaylani, D., Schuschnigg, S., Holzer, C. & Gonzalez-Gutierrez, J., 19 Apr 2018, p. 1. 1 p.

Feedstocks for the Shaping-Debinding-Sintering Process of Multi Material Components

Cano Cano, S., Kukla, C., Kaylani, D., Schuschnigg, S., Holzer, C. & Gonzalez-Gutierrez, J., 19 Apr 2018, 27. *Leobener Kunststoff-Kolloquium: Print & Coat- Polymere in Druck- und Beschichtungstechnologien*. Kern, W. (ed.). Leoben, Vol. 27. p. 255 -256 2 p.

Highly-filled Polymers for Fused Filament Fabrication

Gonzalez-Gutierrez, J., Cano Cano, S., Schuschnigg, S., Holzer, C. & Kukla, C., 19 Apr 2018, 27. *Leobener Kunststoff-Kolloquium: Print & Coat- Polymere in Druck- und Beschichtungstechnologien*. Kern, W. (ed.). Leoben, Vol. 27. p. 93-102 10 p.

Material Extrusion Additive Manufacturing for Photocatalytic Applications

Gonzalez-Gutierrez, J., Jiang, W., Lichal, C., Schuschnigg, S., Huang, L. & Holzer, C., 19 Apr 2018, p. 1. 1 p.

Material Extrusion Additive Manufacturing for Photocatalytic Applications

Gonzalez-Gutierrez, J., Jiang, W., Lichal, C., Schuschnigg, S., Huang, L. & Holzer, C., 19 Apr 2018, 27. *Leobener Kunststoff-Kolloquium: Print & Coat- Polymere in Druck- und Beschichtungstechnologien*. Kern, W. (ed.). Leoben, Vol. 27. p. 259-260 2 p.

Special Binder Systems for Metal Powders in Highly Filled Filaments for Fused Filament Fabrication

Gonzalez-Gutierrez, J., Cano Cano, S., Ecker, J., Arbeiter, F., Burkhardt, C., Hampel, S., Kukla, C. & Holzer, C., 14 Dec 2017, p. 1. 1 p.

Special Binder Systems for the Use with Metal Powders for Highly Filled Filaments for Fused Filament Fabrication

Gonzalez-Gutierrez, J., Kukla, C., Arbeiter, F. & Holzer, C., 14 Dec 2017, *33rd Annual Meeting of the Polymer Processing Society*. Cancun, Mexico, Vol. 33. 1 p.

Isotropic NdFeB hard magnets: MIM production using recycled powders with and without Nd additions

Burkhardt, C., Weber, O., Podmiljsak, B., Gonzalez-Gutierrez, J., Kukla, C., Degri, M., Harris, I. R. & Walton, A., 1 Dec 2017, In: *Powder injection moulding international*. 11, 4, p. 75-81 7 p.

3D printing conditions determination for feedstock used in fused filament fabrication (FFF) of 17-4PH stainless steel parts

Gonzalez-Gutierrez, J., Godec, D., Guran, R., Spörk, M., Kukla, C. & Holzer, C., 15 Nov 2017, In: *Metalurgija : casopis Izdaje Tehnoloski Fakultet Sveucilista u Zagrebu, Odjeli u Sisku, Institut za Metalurgiju i Zeljezara Sisak = Metallurgy*. 57, 1-2, p. 117-120 4 p., 669.15:621.775:669.015:66.049.4:621.385.833=111.

Feedstocks for metal injection moulding: Effect of particle characteristics and binder composition on the rheological properties and the morphology of metal injection moulding feedstocks

Kukla, C. & Gonzalez-Gutierrez, J., 15 Nov 2017, *WerWasWo.Forschung@MUL 2017*. Schuschnigg, S. (ed.). 6 ed. Leoben, Austria, p. 127 1 p.

Flexible Production via 3D Printing: Development of a sustainable, stable and flexible manufacturing process (3D printing) for complex metallic and ceramic components in a waste-free but industrially viable process

Sapkota, J. & Gonzalez-Gutierrez, J., 15 Nov 2017, *WerWasWo.Forschung@MUL 2017*. Schuschnigg, S. (ed.). 6 ed. Leoben, Austria, p. 190 1 p.

Resource Efficient Production of Magnets: Utilization of recycled rare earth magnetic material for the production of magnets with complex structure and geometry via additive manufacturing and metal injection moulding

Gonzalez-Gutierrez, J. & Kukla, C., 15 Nov 2017, *WerWasWo.Forschung@MUL 2017*. Schuschnigg, S. (ed.). 6 ed. Leoben, Austria, p. 78 1 p.

Effect of the printing bed temperature on the adhesion of parts produced by fused filament fabrication

Spörk, M., Gonzalez-Gutierrez, J., Sapkota, J., Schuschnigg, S. & Holzer, C., 8 Nov 2017, In: *Plastics, rubber and composites*. 47, 1, p. 17-24 8 p.

The production of magnets by FFF - Fused Filament Fabrication

Kukla, C., Gonzalez-Gutierrez, J., Burkhardt, C., Weber, O. & Holzer, C., 1 Oct 2017, *Euro PM2017 Congress & Exhibition*. Milan, Italy: European Powder Metallurgy Association, 6 p.

Development of highly-filled polymer compounds for fused filament fabrication of ceramics and solvent debinding

Cano Cano, S., Gonzalez-Gutierrez, J., Sapkota, J., Kukla, C. & Holzer, C., 27 Jun 2017.

SHAPING, DEBINDING AND SINTERING OF STEEL COMPONENTS VIA FUSED FILAMENT FABRICATION

Gonzalez-Gutierrez, J., Godec, D., Kukla, C., Schlauf, T., Burkhardt, C. & Holzer, C., 8 Jun 2017, *16th International Scientific Conference on Production Engineering*. Udiljak, T. (ed.). Zadar, Croatia, p. 99 104 p.

Fused Filament Fabrication (FFF) of PIM Feedstocks

Kukla, C., Gonzalez-Gutierrez, J., Cano Cano, S., Hampel, S., Burkhardt, C., Moritz, T. & Holzer, C., 7 Jun 2017, *ACTAS DEL VI CONGRESO NACIONAL DE PULVIMETALURGIA Y I CONGRESO IBEROAMERICANO DE PULVIMETALURGIA*. Herranz, G., Ferrari, B. & Cabrera, J. M. (eds.). Ciudad Real, Spain, Vol. 6. p. 1-6 6 p.

Fused Filament Fabrication for the Production of Metal and/or Ceramic Parts and Feedstocks Therefore

Kukla, C., Gonzalez-Gutierrez, J., Cano Cano, S., Burkhardt, C., Hampel, S., Moritz, T. & Holzer, C., 29 May 2017. 1 p.

Fused Filament Fabrication for the production of metal and/or ceramic parts and feedstocks therefore

Kukla, C., Gonzalez-Gutierrez, J., Cano Cano, S., Burkhardt, C., Hampel, S., Moritz, T. & Holzer, C., 29 May 2017, *19th Plansee Seminar*. Reutte, Austria: Plansee AG, Vol. 19. 9 p.

FILLER CONTENT AND PROPERTIES OF HIGHLY FILLED FILAMENTS FOR FUSED FILAMENT FABRICATION OF MAGNETS

Gonzalez-Gutierrez, J., Duretek, I., Arbeiter, F., Kukla, C. & Holzer, C., 9 May 2017, *ANTEC@ 2017*. Anaheim, California, USA, 4 p.

MOLECULAR DYNAMICS SIMULATIONS AS A TOOL FOR MATERIAL SELECTION IN METAL INJECTION MOULDING FEEDSTOCKS

Gooneie, A., Gonzalez-Gutierrez, J., Kukla, C. & Holzer, C., 24 Apr 2017, *CONFERENCE PROCEEDINGS ICIT&APT 2017 10th International Conference on Industrial Tools and Advanced Processing Technologies*. Hancic, A. & Grum, J. (eds.). Ljubljana, Slovenia, Vol. 10. 1 p.

The SDS process: A viable way for the production of metal parts

Kukla, C., Gonzalez-Gutierrez, J., Hampel, S., Burkhardt, C. & Holzer, C., 24 Apr 2017, *CONFERENCE PROCEEDINGS ICIT&APT 2017 10th International Conference on Industrial Tools and Advanced Processing Technologies*. Hancic, A. & Grum, J. (eds.). Vol. 10. 1 p.

Metal Injection Moulding for the Production of Recycled Rare Earth Magnets

Gonzalez-Gutierrez, J., Walton, A., Schlauf, T., Burkhardt, C., Kukla, C., Krispin, M. & Holzer, C., 20 Apr 2017. 1 p.

Rheology of PIM feedstocks

Kukla, C., Duretek, I., Gonzalez-Gutierrez, J. & Holzer, C., 9 Feb 2017, In: *Metal Powder Report*. 72, 1, p. 39-44 6 p.

New methodology for steady-state friction measurements of granular materials under pressure

Bek, M., Gonzalez-Gutierrez, J. & Emri, I., 1 Jan 2017, *Experimental and Applied Mechanics - Proceedings of the 2016 Annual Conference on Experimental and Applied Mechanics*. Zhu, Y. & Zehnder, A. T. (eds.). p. 105-113 9 p. (Conference Proceedings of the Society for Experimental Mechanics Series; vol. 4).

Effect of Particle Size on the Properties of Highly-Filled Polymers for Fused Filament Fabrication

Kukla, C., Gonzalez-Gutierrez, J., Duretek, I., Schuschnigg, S. & Holzer, C., 2017.

Polymer Trends: Fused Filament Fabrication projects at MUL-KV

Gonzalez-Gutierrez, J., 2 Dec 2016, p. 1-56. 56 p.

Atomistic Modelling of Confined Polypropylene Chains between Ferric Oxide Substrates at Melt Temperature

Gooneie, A., Gonzalez-Gutierrez, J. & Holzer, C., 14 Oct 2016, In: *Polymers / Molecular Diversity Preservation International*. 8, p. 361-380 19 p.

Special Materials and Technologies for Fused Filament Fabrication

Spörk, M., Gonzalez-Gutierrez, J., Schuschnigg, S. & Holzer, C., 11 Oct 2016, *2016 PPS Asia/Australia Conference*. Chengdu, China, p. 1-5 5 p.

Metal Injection Moulding of NdFeB Based on Recycled Powders

Imgrund, P., Weber, O., Schlauf, T., Pischang, K., Pickering, L., Walton, A., Gonzalez-Gutierrez, J., Kukla, C. & Burkhardt, C., 9 Oct 2016, *World PM2016 Congress & Exhibition*. Petzoldt, F. (ed.). Hamburg, Germany: European Powder Metallurgy Association, p. 1-7 7 p.

Properties for PIM Feedstocks Used in Fused Filament Fabrication

Kukla, C., Duretek, I., Schuschnigg, S., Gonzalez-Gutierrez, J. & Holzer, C., 9 Oct 2016, *World PM2016 Congress & Exhibition*. Petzoldt, F. (ed.). Hamburg, Germany: European Powder Metallurgy Association, p. 1-5 5 p.

Effect of Particle Size on the Properties of Highly-Filled Polymers for Fused Filament Fabrication

Holzer, C., Kukla, C., Duretek, I., Schuschnigg, S. & Gonzalez-Gutierrez, J., 28 Jul 2016.

Effect of Particle Size on the Properties of Highly-Filled Polymers for Fused Filament Fabrication

Kukla, C., Duretek, I., Schuschnigg, S., Gonzalez-Gutierrez, J. & Holzer, C., 25 Jul 2016, p. 299. 1 p.

Effect of Particle Size on the Properties of Highly-Filled Polymers for Fused Filament Fabrication

Kukla, C., Duretek, I., Schuschnigg, S., Gonzalez-Gutierrez, J. & Holzer, C., 25 Jul 2016, *32nd International Conference of the POLYMER PROCESSING SOCIETY*. Maazouz, A. (ed.). Lyon, France, Vol. 32. 4 p.

Models to Predict the Viscosity of Metal Injection Molding Feedstock Materials as Function of Their Formulation

Gonzalez-Gutierrez, J., Duretek, I., Kukla, C., Poljšak, A., Bek, M., Emri, I. & Holzer, C., 28 May 2016, In: *Metals : open access journal*. 6, 6, p. 129- 146 17 p.

Fused Filament Fabrication for Metallic Parts

Gonzalez-Gutierrez, J., Kukla, C., Schuschnigg, S., Duretek, I. & Holzer, C., 14 Apr 2016, *25. Leobener Kunststoff-Kolloquium: Kunststoffgerechte Bauteilentwicklung- vom Werkstoff zum Produkt*. Pinter, G. & Pilz, G. (eds.). Leoben, Austria, Vol. 25. p. 187-188 2 p.

Fused Filament Fabrication for Metallic Parts

Gonzalez-Gutierrez, J., Kukla, C., Schuschnigg, S., Duretek, I. & Holzer, C., Apr 2016, p. 1.

Apparatus for steady-state friction measurements of granular materials under uniaxial compression

Bek, M., Gonzalez-Gutierrez, J. & Emri, I., 1 Jan 2016, *33rd Danubia Adria Symposium on Advances in Experimental Mechanics*. p. 170-171 2 p. (33rd Danubia Adria Symposium on Advances in Experimental Mechanics).

Study of rheological behaviour of stainless steel feedstock taking into account the thermal effects

Kukla, C., Duretek, I., Schuschnigg, S., Gonzalez-Gutierrez, J., Gooneie, A. & Holzer, C., 30 Nov 2015, *IBEREO'15 IBERIAN RHEOLOGY CONFERENCE*. Rasteiro, M. G. (ed.). Coimbra, Portugal: Universidad Nacional de Colombia, p. 50-53 4 p.

Apparatus for measuring friction inside granular materials— Granular friction analyzer

Bek, M., Gonzalez-Gutierrez, J., Moreno Lopez, J. A., Bregant, D. & Emri, I., 24 Nov 2015, In: Powder technology : an international journal on the science and technology of wet and dry particulate systems. 288, 2016, p. 255-265 10 p.

Viscosity and creep compliance of polyoxymethylene copolymers of various average molecular weights

Gonzalez-Gutierrez, J., Oblak, P., Megen, Z. & Emri, I., Oct 2015, In: Polimery/Polymers. 2015, 10, p. 620-627 7 p.

Rheological Behaviour of Bronze Feedstocks at Low Shear Rates

Kukla, C., Duretek, I., Gonzalez-Gutierrez, J. & Holzer, C., 14 Sep 2015, *Euro PM2015 Congress Proceedings*. Reims, France: European Powder Metallurgy Association, 6 p.

Processability and mechanical properties of extensively recycled high density polyethylene

Oblak, P., Gonzalez-Gutierrez, J., Zupančič, B., Aulova, A. & Emri, I., 1 Jan 2015, In: Polymer Degradation and Stability. 114, p. 133-145 13 p.

Selection of appropriate polyoxymethylene-based binder for powder injection molding feedstock

Gonzalez-Gutierrez, J., 8 Sep 2014, In: Zeitschrift Kunststofftechnik : Journal of plastics technology. 10, 5, p. 150 164 p.

Strain Dependence of the Uniaxial Compression Response of Vegetable Shortening

Gonzalez-Gutierrez, J. & Scanlon, M. G., Sep 2013, In: JOURNAL OF THE AMERICAN OIL CHEMISTS SOCIETY. 90, 9, p. 1319-1326

The effect of extensive mechanical recycling on the properties of low density polyethylene

Jin, H., Gonzalez-Gutierrez, J., Oblak, P., Zupancic, B. & Emri, I., Nov 2012, In: Polymer Degradation and Stability. 97, 11, p. 2262-2272

IMPORTANCE OF VISCOELASTIC CHARACTERISTICS IN DETERMINING FUNCTIONALITY OF TIME-DEPENDENT MATERIALS

Emri, I., Zupancic, B., Gergesova, M., Saprunov, I., Gonzalez-Gutierrez, J. & Bek, M., Oct 2012, In: DYNA-COLOMBIA. 79, 175, p. 97-104

Powder Injection Molding of Metal and Ceramic Parts

Gonzalez-Gutierrez, J., Stringari, G. & Emri, I., 23 Mar 2012, *Some Critical Issues for Injection Molding*. Wang, J. (ed.). 1 ed. Rijeka, Croatia, p. 65 - 88 23 p. 3

Rheology and mechanical properties of fats

Gonzalez-Gutierrez, J. & Scanlon, M. G., 23 Feb 2012, *Structure-function analysis of edible fats*. Marangoni, A. (ed.). 1 ed. Urbana, Illinois, USA, p. 127-172 45 p. 5

Effect of processing on the viscoelastic, tensile and optical properties of albumen/starch-based bioplastics

Gonzalez-Gutierrez, J., Partal, P., Garcia-Morales, M. & Gallegos, C., 11 Feb 2011, In: Carbohydrate Polymers. 84, 1, p. 308-315

Development of highly-transparent protein/starch-based bioplastics

Gonzalez-Gutierrez, J., Partal, P., Garcia-Morales, M. & Gallegos, C., Mar 2010, In: Bioresource technology. 101, 6, p. 2007-2013

Qualifications

Doctoral programme, PhD, Faculty of Mechanical Engineering, University of Ljubljana

1 Oct 2010 → 1 Dec 2014

Award Date: 1 Dec 2014

Prizes

Deutscher Rohstoffeffizienz-Preis 2017

Holzer, Clemens (Recipient), Schuschnigg, Stephan (Recipient), Kukla, Christian (Recipient) & Gonzales-Gutierrez, Joamin (Recipient), 10 Jan 2018

Umwelttechnikpreis Baden-Württemberg

Holzer, Clemens (Recipient), Schuschnigg, Stephan (Recipient), Gonzales-Gutierrez, Joamin (Recipient) & Kukla, Christian (Recipient), 1 Jul 2017