Prof. Dr.-Ing. Sven WIEßNER

born: 13th April 1976, male

Head of Research Division „Elastomers“ at Leibniz-Institut für Polymerforschung Dresden e.V. (IPF), Hohe Straße 6, 01069 Dresden, GERMANY
Tel.: +49 351 4658468, Email: wiessner@ipfdd.de

Chair for Elastomeric Materials, Institute of Materials Science, Technische Universität Dresden, 01062 Dresden, GERMANY

Academic Education (Diplomstudium)

Chemical Engineering (1995–2000), Technische Universität Chemnitz (TUC), GERMANY, Dipl.-Ing.

Scientific Qualification

Habilitation Equivalent Qualification: Junior-Professorship for Elastomeric Materials,
Technische Universität Dresden 2012-2018, Mentor: Prof. Dr. rer. nat. habil. Gert Heinrich

Promotion (Doctorate): Polymer Engineering, Dr.-Ing., 2009 (magna cum laude),
Faculty of Mechanical Engineering, Technische Universität Chemnitz, GERMANY
Topic: „Reactive processing of ground tire rubber based Elastomeric Alloys in a co-rotating twin-screw extruder“ , Supervisor: Prof. Dr.-Ing. Günter Mennig

Profession

since 2/2020:	Head of IPF Research Division „Elastomers“ at Leibniz-Institut für Polymerforschung Dresden e.V. (IPF)
since 2/2020:	W2-Professorship for „Elastomeric Materials“ at Technische Universität Dresden
2013 - 2020:	Head of Department „Elastomers“ at the Institute Polymeric Materials (IPW) of Leibniz-Institut für Polymerforschung Dresden e.V. (IPF)
2012 - 2018:	Juniorprofessor for „Elastomeric Materials“ at Institute of Materials Science of Technische Universität Dresden
2009 - 2012:	Group Leader „Reactive Compounding“ at Department „Processing“ at the Institute Polymeric Materials (IPW) of Leibniz-Institut für Polymerforschung Dresden e.V. (IPF)
2005 - 2009:	Scientist in the Depts. „Processing“ and „Melt Modification“ at Institute of Polymeric Materials (IPW) of Leibniz-Institut für Polymerforschung Dresden e.V. (IPF)
2001 - 2005:	Scientific Co-worker at the Chair „Polymer Processing“ of Technische Universität Chemnitz, GERMANY

since 2017:	Member of Editorial Board „Polymer Testing“
since 2012:	Member of Scientific Council of German Rubber Society (Deutsche Kautschuk-Gesellschaft DKG e.V.)
2011 - 2019:	Consultant of Managing Board of Deutsche Kautschuk-Gesellschaft DKG e.V.
continuing:	Reviewer for several national and international scientific organizations and funding agencies such as DFG, BMBF, FFG, WR, A. v. Humboldt Foundation, DAAD
continuing:	Reviewer for numerous scientific journals as Soft Matter, Polymer, Rubber Chemistry and Technology, Composites Science and Technology, Materials, Polymer Testing, Polymers, Polymer Composites, , Polymer Engineering and Science, International Polymer Processing, eXPRESS Polymer Letters etc.

Journal Publications and Citations:
Scientist-ID: ABH-3430-2020, google scholar: Sven Wiessner

Publications (10 selected)

1] S. Salaeh, A. Das, S. Wießner (2021) “Design and fabrication of thermoplastic elastomer with ionic network: A strategy for good performance and shape memory capability”, *Polymer*, **233**, 123699.

2] E. Euchler, R. Bernhardt, K. Schneider, G. Heinrich, S. Wießner, T. Tada (2020) “In situ dilatometry and X-ray microtomography study on the formation and growth of cavities in unfilled styrene-butadiene-rubber vulcanizates subjected to constrained tensile deformation”, *Polymer*, **187**, 122086.

3] J. Narongthong, S. Wießner, S. Hait, Ch. Sirisinha, K.W. Stöckelhuber (2020) “Strain-rate independent small-strain-sensor: Enhanced responsiveness of carbon black filled conductive rubber composites at slow deformation by using an ionic liquid”, *Composites Science and Technology*, **188**, 107972.

4] S.S. Banerjee, S. Hait, T.S. Natarajan, S. Wießner, K.W. Stöckelhuber, D. Jehnichen, A. Janke, D. Fischer, G. Heinrich, J.J.C Busfield, A. Das (2019) “Water-responsive and mechanically adaptive natural rubber composites by in situ modification of mineral filler structures”, *Journal of Physical Chemistry B*, **123**, 5168-5175.

5] M. Tahir, G. Heinrich, N. Mahmood, R. Boldt, S. Wießner, K.W. Stöckelhuber (2018) “Blending in situ polyurethane-urea with different kinds of rubber: Performance and compatibility aspects”, *Materials*, **11**, 2175.

6] J. Narongthong, A. Das, H.H. Le, S. Wießner, Ch. Sirisinha (2018) “An efficient highly flexible strain sensor: Enhanced electrical conductivity, piezoresistivity and flexibility of a strongly piezoresistive composite based on conductive carbon black and an ionic liquid”, *Composites Part A*, **113**, 330-338

7] K.W. Stöckelhuber, S. Wiessner, A. Das, G. Heinrich (2017) „Filler flocculation in polymers – a simplified model derived from thermodynamics and game theory”, *Soft Matter*, **13**, 3701-3709.

8] A. Das, A. Sallat, F. Böhme, M. Suckow, D. Basu, S. Wießner, K.W. Stöckelhuber, B. Voit, G. Heinrich (2015) “Ionic modification turns commercial rubber into a self-healing material”, *ACS Applied Materials & Interfaces*, **7**, 20623-20630.

9] M. Mostafaiyan; S. Wießner, G. Heinrich; M.S. Hosseini, J. Domurath; H.A. Khonakdar (2018) “Application of local least squares finite element method (LLSFEM) in the interface capturing of two-phase flow systems”, *Computers and Fluids*, **174**, 110-121.

10] G. Ausias, S. Thuillier, B. Omnés, S. Wiessner, P. Pilvin (2006) „Micromechanical model of TPE made of polypropylene and rubber waste”, *Polymer*, **48**, 3367-3376.