

RESUME

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<http://mechatronics.org>

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Forschungsgebiete

Robotertechnik und Automatisierung, Robotergriffe, Elektrostatis, elektro- und magneto-rheologische Flüssigkeiten und andere besondere Materialien und Systeme, Meßtechnik, Sensoren und Aktoren und deren Anwendungen.

Berufserfahrung

Seit 1996	Ostbayerische Technische Hochschule Regensburg	Professor für Robotertechnik und Automatisierung (Sensorik/Aktorik); Fakultät Elektro- und Informationstechnik. Direktor Mechatronics Research Unit.
1995 - 1996	International Phoretics	Technischer Journalist/Industrial Consultant.
1992 - 1995	Fachhochschule Regensburg	Gastprofessor; Fachbereich Elektrotechnik
1989 - 1992	University of Hull	Commercial Development Officer; Robotics & automation contract research & development and industrial consultancy.
1986 - 1989	University of Hull	Senior Research Assistant; Various robotics research projects (SERC/DTI and industrial)
1982 - 1986	Cranswick Computers ²	Software development and computer retailing.
1985 (vac)	University of Hull	Temporary Technician; Medical laser hardware and PID software development.
1977 - 1984	British Mercantile Marine	Maritime service as Radio/Electronics Officer. ¹
1975 - 1977	Winkfield Space Research Station (NASA)	Senior Technician; Satellite tracking and data acquisition.

¹This includes temporary Mercantile Marine service during summer and Christmas university vacations of 1984.

²Temporary business interests during leave periods.

10 Publikationen

Klein, D., D. Rensink, H. Freimuth, G.J. Monkman, S. Egersdörfer, H. Böse & M. Baumann - Modelling the Response of a Tactile Array using an Electrorheological Fluids - *Journal of Physics D: Applied Physics*, vol 37, no. 5, pp794-803, Mar 2004. {DOI: 10.1088/0022-3727/37/5/023}

Füchtmeier, B., S. Egersdoerfer, R. Mai, R. Hente, D. Dragoi, G.J. Monkman & M. Nerlich - Reduction of femoral shaft fractures in vitro by a new developed reduction robot system "RepoRobo" - *Injury* - 35 pp113-119, Elsevier June 2004. {DOI: 10.1016/j.injury.2004.05.019}

Forster, E., M. Mayer, R. Rabindranath, H. Böse, G. Schlunck, G. J. Monkman, und M. Shamonin, „Patterning of ultrasoft, agglutinative magnetorheological elastomers“, *Journal of Applied Polymer Science*, Volume 128 Issue 4 Pages 2508-2515, May 15 2013. {DOI: 10.1002/app.38500}

Mayer, M., R. Rabindranath, J. Börner, E. Hörner, A. Bentz, J. Salgado, H. Han, H. Böse, J. Probst, M. Shamonin, G. J. Monkman & G. Schlunck - Ultra-Soft PDMS-Based Magnetoactive Elastomers as Dynamic Cell Culture Substrata - *PLoS ONE*, Volume: 8 Issue: 10, October 18, 2013. {DOI: 10.1371/journal.pone.0076196}

Stoll, A., Mayer, M., Monkman, G., Shamonin, M. - Evaluation of highly compliant magneto-active elastomers with colossal magnetorheological response. - *J. Appl. Polym. Sci.*, 131, doi: 10.1002/app.39793, 2014. {DOI: 10.1002/APP.39793}

Sorokin, V, E. Ecker, G.V. Stepanov, M. Shamonin, G J. Monkman, E. Y. Kramarenko and A.R. Khokhlov - Experimental study of the magnetic field enhanced Payne effect in magnetorheological elastomers. - *Soft Matter*, Volume: 10 Issue: 43 Pages: 8765-8776, 2014. {DOI: 10.1039/c4sm01738b}

Sorokin, V., G. Stepanov, M. Shamonin, G.J. Monkman, A.R. Khokhlov & E.Y. Kramarenko - Hysteresis of the viscoelastic properties and the normal force in magnetically and mechanically soft magnetoactive elastomers: Effects of filler composition, strain amplitude and magnetic field – *Polymer*, Volume 76, pp 191–202, Elsevier, 12 October 2015.

Sorokin, V.V., G.V. Stepanov, M. Shamonin, G.J. Monkman & E.Y. Kramarenko - Magnetorheological behavior of magnetoactive elastomers filled with bimodal iron and magnetite particles - *Smart Mater. Struct.* 26 (2017) 035019 (12pp) .

Monkman G.J., D. Sindersonberger, A. Diermeier and N. Prem - The Magnetoactive Electret - *Smart Mater. Struct.* - 14 June 2017 (online 17 May 2017) {<https://doi.org/10.1088/1361-665X/aa738f> }

Prem, N., J. Chavez Vega, V. Böhm, D. Sindersonberger, Gareth J. Monkman, K. Zimmermann - Properties of Polydimethylsiloxane and Magnetoactive Polymers with electro conductive particles – *Macromolecular Chemistry and Physics*, Wiley. 14.08.2018. doi: <https://doi.org/10.1002/macp.201800222>