

List of Publications Ille C. Gebeshuber

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Peer-Reviewed Articles and Editorial Material

1. **Gebeshuber I.C.**

Value-based science: What we can learn from micro- and nanotribology
Tribology – Materials, Surfaces and Interfaces 10(1), 2015, 10-18. doi:
10.1179/1751584X15Y.0000000008, **invited article**

2. Zobl Z, Salvenmoser W., Schwerte T., **Gebeshuber I.C.** and Schreiner M.

Morpho peleides *butterfly wing imprints as structural colour stamp*
Bioinspiration & Biomimetics 11(1), 2016, 016006(17 pp), doi:10.1088/1748-
3190/11/1/016006.

3. Karman S.B., Diah S.Z.M. and **Gebeshuber I.C.**

*Raw materials synthesis from heavy metal industry effluents with bioremedia-
tion and phytomining: A biomimetic resource management approach*
Advances in Materials Science and Engineering 2015, Article ID 185071(21p), doi:
10.1155/2015/185071

4. **Gebeshuber I.C.**

Editorial, Inaugural Issue Journal of Nanomedicine Research
Journal of Nanomedicine Research 1(1), 2014. doi: 10.15406/jnmr.2014.01.00003

5. Diah S.Z.M., Karman S.B. and **Gebeshuber I.C.**

*Nanostructural coloration in Malaysian plants: Lessons for biomimetics and bi-
omaterials*
Journal of Nanomaterials 2014, Article ID 878409(15p), doi:
10.1155/2014/878409

6. **Gebeshuber I.C.** and Macqueen M.O.

What is a physicist doing in the jungle? Biomimetics of the rainforest
Applied Mechanics and Materials 461, 2014, 152-162.
doi:10.4028/www.scientific.net/AMM.461.152.

7. **Gebeshuber I.C.**

Message
Control, Instrumentation, Communication and Computational Technologies
(ICCICCT), 2014 International Conference on, IEEE Conference Publications, p.
ii. doi:10.1109/ICCICCT.2014.6993208

8. Futterknecht O., Macqueen M.O., Karman S., Diah S.Z.M. and **Gebeshuber I.C.**
Biomimetic MEMS sensor array for navigation and water detection
Proc. SPIE, 2013, 87632B (9p). doi:10.1117/12.2016953
9. **Gebeshuber I.C.** and Macqueen M.O.
New Asian Case Method for Tribology: A structured approach for increased problem solving competence in tribology education and research
Tribology – Materials, Surfaces and Interfaces 7(2), 69-73, 2013. doi: 10.1179/1751584X13Y.0000000027, **invited article**
10. Drack M. and **Gebeshuber I.C.**
Comment on “Innovation through imitation: biomimetic, bioinspired and bio-kleptic research” by A. E. Rawlings, J. P. Bramble and S. S. Staniland, Soft Matter, 2012, 8, 6675
Soft Matter 9, 2338-2340, 2013. doi: 10.1039/c2sm26722e
11. Karman S.B., Diah S.Z.M. and **Gebeshuber I.C.**
Bio-inspired polarized skylight-based navigation sensors: A review
Sensors 12(11), 14232-14261, 2012. doi: 10.3390/s121114232
12. Ismardi A., Dee C.F., Hamzah A.A., Bais B., Salleh M.M., Majlis B.Y. and **Gebeshuber I.C.**
Co-Synthesis and characterization of In₂O₃ and ZnO nanowires (Sintesis Bersama dan Pencirian bagi Nanowayar In₂O₃ dan ZnO)
Sains Malaysiana 41(4), 459-463, 2012. ISSN 0126-6039.
13. **Gebeshuber I.C.** and Roy M.
Guest Editorial: Special Issue on Advanced Materials Engineering: Selected Papers from the Indo-Austrian Symposium 2010
Proc. IMechE Part C: J. Mech. Eng. Sci. 226(C2), Special Issue “Advanced Materials Engineering: Selected Papers from the Indo-Austrian Symposium 2010” (Guest Eds: Ille C. Gebeshuber and Manish Roy), 299-302, 2012.
doi: 10.1177/0954406211435297, **invited article**
14. **Gebeshuber I.C.**
Green nanotribology
Proc. IMechE Part C: J. Mech. Eng. Sci. 226(C2), 2012, Special Issue “Advanced Materials Engineering: Selected Papers from the Indo-Austrian Symposium 2010” (Guest Eds: Ille C. Gebeshuber and Manish Roy), 374-386, 2012
doi: 10.1177/0954406211428020, **invited article**
15. Ismardi Abrar, Dee C.F., **Gebeshuber I.C.** and Majlis B.Y.
Growth and characterization of Indium doped ZnO nanowires using vapor transport deposition method
Adv. Mat. Res. 364, 202-205, 2012. ISSN 1022-6680. doi: 10.4028/www.scientific.net/AMR.364.202
16. Gordon R., Levin S.M. and **Gebeshuber I.C.**
Triggered, nanostructured biodegradables (TNBs) for surgical implants
invited article, Special issue on Bioinspired Micro and Nanosystems, Micro and Nanosystems 3(4), 271-276, 2011. ISSN 1876-4029, doi: 10.2174/1876402911103040271
17. Makarczuk T., Matin T.R., Karman S.B., Diah S.Z.M., Davaji B., Macqueen M.O.,

- Schmid U. and **Gebeshuber I.C.**
Biomimetic MEMS to assist, enhance and expand human sensory perceptions - A survey on state-of-the art developments
Proc. SPIE, 2011, 80661O(15p). doi: 10.1117/12.886554
18. **Gebeshuber I.C.** and Gordon R.
Bioinspiration for tribological systems on the micro- and nanoscale: dynamic, mechanic, surface and structure related functions
invited article, Special issue on Bioinspired Micro and Nanosystems, Micro and Nanosystems 3(4), 284-289, 2011. ISSN 1876-4029, doi: 10.2174/1876402911103040284
19. Macqueen M.O., Mueller J., Dee C.F. and **Gebeshuber I.C.**
GEMS: A MEMS-based way for the innervation of materials
Adv. Mat. Res. 254(8), 34-37, 2011. ISSN 1022-6680.
20. Karman S.B., Macqueen M.O., Matin T.R., Diah S.M., Mueller J., Yunas J., Davaji B., Makarczuk T. and **Gebeshuber I.C.**
On the way to the bionic man: A novel approach to MEMS based on biological sensory systems
Adv. Mat. Res. 254(8), 38-41, 2011. ISSN 1022-6680.
21. Yunas J., Johari J., Bahadorimehr A.R., **Gebeshuber I.C.** and Majlis B.Y.
Investigation of simple process technology for the fabrication of valveless micropumps
Adv. Mat. Res. 254(8), 211-214, 2011. ISSN 1022-6680.
22. **Gebeshuber I.C.** and Majlis B.Y.
3D corporate tourism: A concept for innovation in nanomaterials engineering
Int. J. Mat. Eng. Innov. 2(1), 38-48, 2011, **invited article**. Online ISSN 1757-2762, Print ISSN 1757-2754.
23. Naveira-Suarez A., Tomala A., Pasaribu R., Larsson R. and **Gebeshuber I.C.**
Evolution of ZDDP-derived reaction layer morphology with rubbing time
Scanning 32(5), 294-303, 2010, **invited article**. doi: 10.1002/sca.20207. Online ISSN 1932-8745, ISSN 0161-0457. Incl. **Coverpage**.
24. Doerr N., **Gebeshuber I.C.**, Holzer D., Wanzenboeck H.D., Ecker A., Pauschitz A. and Franek F.
Evaluation of ionic liquids as lubricants
J. Microeng. Nanoel. 1(1), 29-34, 2010. ISSN 2229-3183, **invited article**
25. Yunas J., Johari J., **Gebeshuber I.C.** and Majlis B.Y.
Design and fabrication of MEMS micropumps using double sided etch technique
IMAPS Journal of Microelectronics and Electronic Packaging 7(1), 44-47, 2010. ISSN 1551-4897
26. **Gebeshuber I.C.** and Majlis B.Y.
New ways of scientific publishing and accessing human knowledge inspired by transdisciplinary approaches
Tribology - Surfaces, Materials and Interfaces 4(3), 143-151, 2010. Print ISSN 1751-5831, Online ISSN 1751-584X, doi: 10.1179/175158310X12626998129716
27. Zika T., Buschbeck F., Preisinger G., **Gebeshuber I.C.** and Groeschl M.
Surface damage of rolling bearings caused by discrete current flow

- Z. Tribologie und Schmierungstechnik T&S 57(2), 11-14, 2010. ISBN-13 978-3-8169-9999-7, ISSN 0724-3472, **invited article**
28. Tiffany M.A., Gordon R. and **Gebeshuber I.C.**
Hyalodiscopsis plana, a sublittoral centric marine diatom, and its potential for nanotechnology as a natural zipper-like nanoclasp
Polish Botanical Journal 55(1), 27-41, 2010. Incl. **Coverpage**.
29. Tomala A., **Gebeshuber I.C.**, Pauschitz A. and Roy M.
A comparative AFM study of carbon alloyed Mo-Se-C and W-S-C films for tribological applications
Int. J. Mat. Res. (formerly: Zeitschrift fuer Metallkunde) 2010/07, 845-851, 2010. ISSN 1862-5282, doi: 10.3139/146.110358
30. **Gebeshuber I.C.**, Majlis B.Y. and Stachelberger H.
Tribology in Biology: Biomimetic studies across dimensions and across fields
Int. J. Mech. Mat. Eng. (3), 321-327, 2009. ISSN 1823-0334
31. Tomala A., Naveira-Suarez A., **Gebeshuber I.C.** and Pasaribu R.
Effect of base oil polarity on micro and nano friction behaviour of base oil + ZDDP solutions
Tribology – Materials, Surfaces and Interfaces 3(4), 182-188, 2009
doi: 10.1179/175158310X481709
32. **Gebeshuber I.C.**, Gruber P. and Drack M.
A gaze into the crystal ball - biomimetics in the year 2059
Proc. IMechE Part C: J. Mech. Eng. Sci. 223(C12), 50st Anniversary Issue, 2899-2918, 2009
doi: 10.1243/09544062JMES1563, **invited article**
33. Tomala A., Doerr N. and **Gebeshuber I.C.**
Ultraduene Schichten aus Ethanolamin - energieeffiziente wartungsarme Schmierstoffe
Z. Tribologie und Schmierungstechnik T&S 05/2009, 29-32. ISBN-13 978-3-8169-9999-7, ISSN 0724-3472, 2009, **invited article**
34. Tomala A., Doerr N. and **Gebeshuber I.C.**
Ultratenke vrstvy z etanolaminu - energeticky efektivne mazacie latky bez potreby udrzby
Tribotechnika 4/2009, 40-43, 2009. ISSN 1338-0S24, **invited article**
35. Srajer J., Majlis B.Y. and **Gebeshuber I.C.**
Microfluidic simulation of a colonial diatom chain reveals oscillatory movement
Acta Bot. Croat. 68 (2), 431-441, 2009.
36. Tomala A., Werner W.S.M., **Gebeshuber I.C.**, Doerr N. and Stoeri H.
Tribochemistry of monomolecular lubricant films of ethanolamine oligomers
Tribology International 42(10), 1513-1518, 2009
doi: 10.1016/j.triboint.2009.06.004
37. Zika T., **Gebeshuber I.C.**, Buschbeck F., Preisinger G. and Gröschl M.
Surface analysis on rolling bearings after exposure to defined electric stress
Proc. IMechE Part J: J. Eng. Tribol. 223 (J5), 787-797, 2009.

doi: 10.1243/13506501JET538

38. **Gebeshuber I.C.**, Holzer D., Goschke R., Aumayr F. and Störi H.
Development of an atomic force microscope closed fluid cell for tribological investigations of large samples in chemically aggressive environments
Proc. IMechE Part J: J. Eng. Tribol. 223 (J5), 759-765, 2009.
doi: 10.1243/13506501JET539
39. **Gebeshuber I.C.**, Stachelberger H., Ganji B.A., Fu D.C., Yunas J. and Majlis B.Y.
Exploring the innovational potential of biomimetics for novel 3D MEMS
Adv. Mat. Res. 74, 265-268, 2009.
doi: 10.4028/www.scientific.net/AMR.74.265
40. **Gebeshuber I.C.**
Engineering at the interface revisited
Proc. IMechE Part C: J. Mech. Eng. Sci. 223(C1), 50st Anniv. Issue, 65-101, 2009
doi: 10.1243/09544062JMES1138, **invited article**
41. **Gebeshuber I.C.**, Drack M. and Scherge M.
Tribology in biology
Tribology - Materials, Surfaces & Interfaces 2(4), 200-212, 2008
doi: 10.1179/175158308X383206
42. **Gebeshuber I.C.** and Drack M.
An attempt to reveal synergies between biology and engineering mechanics
Proc. IMechE Part C: J. Mech. Eng. Sci. 222, 1281-1287, 2008
doi: 10.1243/09544062JMES890, **invited article**
43. Bogus A., **Gebeshuber I.C.**, Pauschitz A., Roy M. and Haubner R.
Micro- and nanomechanical properties of diamond film with various surface morphologies
Diamond and Related Materials 17(12), 1998-2004, 2008
doi: 10.1016/j.diamond.2008.06.010
44. El-Said A.S., Heller R., Meissl W., Ritter R., Facsko S., Lemell C., Solleder B., **Gebeshuber I.C.**, Betz G., Toulemonde M., Möller W., Burgdörfer J. and Aumayr F.
Creation of nano-hillocks on CaF₂ surfaces by slow highly charged ions
Phys. Rev. Lett. 100, 237601 (4 pages), 2008
doi: 10.1103/PhysRevLett.100.237601
45. Hekele O., Goesselsberger C.G. and **Gebeshuber I.C.**
Nanodiagnosics performed on human red blood cells with the atomic force microscope
Mat. Sci. Technol. 24(9), 1162-1165(4), 2008, doi: 10.1179/174328408X341834
46. Lemell C., El-Said A.S., Meissl W., **Gebeshuber I.C.**, Trautmann C., Toulemonde M, Burgdörfer J. and Aumayr F.
On the nano-hillock formation induced by slow highly charged ions on insulator surfaces
Solid-State Electronics 51, 1398-1404, 2007, doi: 10.1016/j.sse.2007.06.016
47. **Gebeshuber I.C.**
Biotribology inspires new technologies

- Nano Today 2(5), 30-37, 2007
doi: 10.1016/S1748-0132(07)70141-X, **invited article**
48. El-Said A.S., Meissl W., Simon M.C., Crespo López-Urrutia J.R., **Gebeshuber I.C.**, Laimer J., Winter HP., Ullrich J. and Aumayr F.
Creation of surface nanostructures by irradiation with slow highly charged ions
Rad. Eff. Def. Solids 162, 467-472, 2007
doi: 10.1080/10420150701470803
49. El-Said A.S., Meissl W., Simon M.C., Crespo López-Urrutia J.R., Lemell C., Burgdörfer J., **Gebeshuber I.C.**, Winter HP., Ullrich J., Trautmann C., Toulemonde M., Aumayr F.
Potential energy threshold for nanohillock formation by impact of slow highly charged ions on a CaF₂(111) surface
Nucl. Instr. Meth. Phys. Res. B 258, 167-171, 2007
doi: 10.1016/j.nimb.2006.12.142
50. Gruenberger C., Ritter R., Aumayr F., Stachelberger H. and **Gebeshuber I.C.**
Algal biophysics: Euglena gracilis investigated by atomic force microscopy
Mat. Sci. Forum 555, 411-416, 2007
51. El-Said A.S., Meissl W., Simon M.C., Crespo López-Urrutia J.R., **Gebeshuber I.C.**, Lang M., Winter HP., Ullrich J. and Aumayr F.
Surface nanostructures induced by slow highly charged ions on CaF₂ single crystals
Nucl. Instr. Meth. Phys. Res. B 256, 346-349, 2007
doi: 10.1016/j.nimb.2006.12.140
52. Fürsatz M., Meissl W., Pleschko S., **Gebeshuber I.C.**, Stolterfoht N., Winter HP. and Aumayr F.
Charging and discharging of nano-capillaries during ion-guiding of multiply charged projectiles
J. Phys. Conf. Ser. 58, 319-322, 2007
53. Crawford R.M. and **Gebeshuber I.C.**
Harmony of beauty and expediency
Science First Hand 5(10), 30-36, 2006. Incl. **Coverpage.**
54. Crawford R.M. and **Gebeshuber I.C.**
Harmony of beauty and expediency (in Russian)
Science First Hand (Russian Version) 4(10), 48-54, 2006. Incl. **Russian Coverpage.**
55. Crawford R.M., **Gebeshuber I.C.**, Thamatrakoln K. and Hildebrand M.
Mini Nano-engineers
Science First Hand 5(10), 2006.
56. Crawford R.M., **Gebeshuber I.C.**, Thamatrakoln K. and Hildebrand M.
Mini Nano-engineers (in Russian)
Science First Hand (Russian Version) 4(10), 2006.
57. **Gebeshuber I.C.** and Crawford R.M.
Micromechanics in biogenic hydrated silica: hinges and interlocking devices in diatoms
Proc. IMechE Part J: J. Eng. Tribol. 220(J8), 787-796, 2006

58. **Gebeshuber I.C.**
Bio-tribology and the operating environment (Discussion on D. Dowson and A. Neville)
Proc. IMechE Part J: J. Eng. Tribol. 220(J3), 333, 2006
59. **Gebeshuber I.C.**, Stachelberger H. and Drack M.
Diatom tribology
Life Cycle Tribology 48, 365-370, 2005
60. Kolm R., **Gebeshuber I.C.**, Kenesey E., Ecker A., Pauschitz A., Werner W.S.M., and Störi H.
Tribochemistry of mono molecular additive films on metal surfaces, investigated by XPS and HFRR
Life Cycle Tribology 48, 269-282, 2005
61. **Gebeshuber I.C.**, Stachelberger H. and Drack M.
Diatom bionanotribology - Biological surfaces in relative motion: their design, friction, adhesion, lubrication and wear
J. Nanosci. Nanotechnol. 5(1), 79-87, 2005. Incl. Coverpage.
62. **Gebeshuber I.C.**, Cernusca S., Aumayr F. and Winter HP.
Nanoscopic surface modification by slow ion bombardment
Int. J. Mass Spectrom. 229, 27-34, 2003
63. **Gebeshuber I.C.**, Cernusca S., Aumayr F. and Winter HP.
Slow multicharged-ion induced nanodefects on monocrySTALLINE insulator surfaces studied by UHV-AFM
Nucl. Instr. Meth. Phys. Res. B 205, 751-757, 2003
64. **Gebeshuber I.C.**, Kindt J.H., Thompson J.B., Del Amo Y., Stachelberger H., Brzezinski M., Stucky, G.D. Morse D.E. and Hansma P.K.
Atomic force microscopy study of living diatoms in ambient conditions
J. Microsc. 212, 292-299, 2003. Incl. **Coverpage**.
65. **Gebeshuber I.C.**, Thompson J.B., Del Amo Y., Stachelberger H. and Kindt J.H.
In vivo nanoscale atomic force microscopy investigation of diatom adhesion properties
Mat. Sci. Technol. 18, 763-766, 2002
66. Petracchi D., **Gebeshuber I.C.**, DeFelice L.J. and Holden A.V.
Stochastic resonance in biological systems
Chaos, Solitons & Fractals 11, 1819-1822, 2000
67. Viani M.B., Pietrasanta L.I., Thompson J.B., Chand A., **Gebeshuber I.C.**, Kindt J.H., Richter M., Hansma H.G. and Hansma P.K.
Probing protein-protein interactions in real time
Nature Structural Biology 7, 644-647, 2000
68. **Gebeshuber I.C.**
The influence of stochastic behavior on the human threshold of hearing
Chaos, Solitons & Fractals 11, 1855-1868, 2000

69. Svrcek-Seiler W.A., **Gebeshuber I.C.**, Rattay F., Biro T. and Markum H.
Micromechanical models for the Brownian motion of hair cell stereocilia
J. Theor. Biol. 193, 623-630, 1998
70. Rattay F., **Gebeshuber I.C.**, Gitter A.H.
The auditory hair cell: a simple electric circuit model
J. Acoust. Soc. Am. 103, 1558-1565, 1998

Monographs and Edited Scientific Works

1. **Gebeshuber I.C.** and van Aken G. (Eds., 2015/2016, in progress)
Special Issue on "Friction and Lubricants Related to Human Bodies"
Lubricants (ISSN 2075-4442). Special Issue Page, in progress.
2. Hassan M.B., Ghazali M.J.B., Kasolang S.B., Abdollah M.F.B., **Gebeshuber I.C.**
and El Mansori M. (Eds., 2016)
Special Issue "Recent Advances and Challenges in Tribology Research for Sustainable Development"
Advances in Tribology, in preparation
3. Ghazali M.J.B., Abdollah M.F.B., Hassan M.B., Salmiah Binti Kasolang S.B., A. Ghani J.B., **Gebeshuber I.C.**, Fukuda K., Ria Jaafar T.B., Samion S., Bin Wan Ibrahim M.K.B., Ahmad M.A.B., Binti Mohd Zulkifli N.W.B., Md. Nasir R.B., Masripan N.A.B., Mohamad N.B., Hasan R.B., Ismail R.B., Tuan T.B., Amiruddin H.B., Taib M.T.B., Zakaria M.Z.B. and Mat Kamal S.E.B. (Eds., 2015)
Proceedings of Malaysian International Tribology Conference 2015
Malaysian Tribology Society (MYTRIBOS), ISBN 978-967-13625-0-1 (online).
Proceedings (Open Access), 331 pp.
4. Hassan M.B., Kasolang S.B., Hyie K.M., Abdollah M.F.B., A. Ghani J.B., Gebeshuber I.C., Fukuda K., Berhan M.N., Ria Jaafar T.B., Maleque M.A., Saad N.H.B., Ghazali M.J.B., Hsie W.L.Y., Jumahat A.B., Abu Bakar M.A.B., Abdullah N.R.B., Wan Ibrahim M.K.B., Siambun N.J., Mohd Shah M.K.B., Samion S.B., Ismail M.H.B., Nik Roseley N.R.B., Makhtar A.K.B., Amiruddin H.B. and Saleman A.R.B. (Eds., 2013)
International Tribology Conference Malaysia 2013
Procedia Engineering 68. Elsevier, Amsterdam, ISSN 1877-7058. Special Issue (Open Access), 750 pp.
5. Goliaei B., Anderson P., **Gebeshuber I.C.**, Rahman S.A. and Bukhari M.H.S. (Eds.)
First Pakistan International Biophysics Symposium
Abstract Book, Department of Biomedical Engineering, NED University of Engineering & Technology, Karachi, Pakistan, June 2-3, 2012.
6. **Gebeshuber I.C.** and Vanura K. (Eds., 2012)
6. WINET Symposium "Bausteine des Lebens": Flüssig, Flüssigkeiten, im Fluß, ...
Abstract Book, Medical University of Vienna, Vienna, Austria, March 29 - April 1, 2012.
7. **Gebeshuber I.C.** and Roy M. (Guest Eds.)
Advanced Materials Engineering: Selected Papers from the Indo-Austrian Sym-

posium 2010

Special Issue of Proc. IMechE Part C: J. Mech. Eng. Sci., 226(C2), 2012, SAGE Publishing, 103 pp.

8. Gruber P., Bruckner D., Hellmich C., Schmiedmayer H.-B., Stachelberger H. and **Gebeshuber I.C.** (Eds.)
Biomimetics - Materials, Structures and Processes. Examples, Ideas and Case Studies
Series: Biological and Medical Physics, Biomedical Engineering, Springer Heidelberg Dordrecht London New York, 2011. Series Editor Claus Ascheron, 123 illus. (53 in color), Hardcover, ISBN 978-3-642-11933-0, eISBN 978-3-642-11934-7, 266 p.
9. **Gebeshuber I.C.**
Biomimetics and Nanotechnology
UKM Press, Bangi, 2011. ISBN 978-967-412-004-7. 59 pp.
10. **Gebeshuber I.C.**
Nanoscience on Surfaces
Holzhausen Publishing, Vienna, 2010. ISBN 978-3-85493-178-2. 156 pp.
11. **Gebeshuber I.C.**, Holden A.V. and Petracchi D. (Guest Eds.)
Stochastic resonance in biological systems
Special issue of Chaos, Solitons & Fractals, 11(12), 09/2000, Pergamon Press, Oxford, 129 pp.
12. **Gebeshuber I.C.**, Holden A.V. and Petracchi D. (Eds.)
Stochastic resonance in biological systems
Book of Abstracts, First International Conference on Stochastic Resonance in Biological systems, Arcidosso, Italy, May 5-9, 1998.

Book Chapters

1. **Gebeshuber I.C.** and Lee D.W. (in press)
Nanostructures for coloration (organisms other than animals)
In: Springer Encyclopedia of Nanotechnology 2nd Edition, (Eds. Bhushan B. and Nosonovsky M.), Springer.
2. **Gebeshuber I.C.**, Gruber P. and Imhof B. (in press)
Biornametics - Architecture inspired by natural patterns
In: Springer Encyclopedia of Nanotechnology 2nd Edition, (Eds. Bhushan B. and Nosonovsky M.), Springer.
3. **Gebeshuber I.C.** and Macqueen M.O. (in press)
Superfast evolution via trans- and interspecies biocommunication
in: Biocommunication, Sign-Mediated Interactions between Cells and Organisms. (Eds. Gordon R. and Seckbach J.), World Scientific Publishing, London, ISBN 978-1-78634-044-3 (hardcover), 750 pp., in press - to appear October 2016.
4. **Gebeshuber I.C.** (in press)
Foreword: Biocommunication in the web of life: Theoretical and experimental approaches
in: Biocommunication, Sign-Mediated Interactions between Cells and Organisms.

(Eds. Gordon R. and Seckbach J.), World Scientific Publishing, London, ISBN 978-1-78634-044-3 (hardcover), 750 pp., in press - to appear October 2016.

5. **Gebeshuber I.C.**
Ecotribology: Development, Prospects, and Challenges
Chapter 1 in: *Eco-Tribology - Research Developments*, (Ed. J. Paulo Davim), Series “Materials Forming, Machining and Tribology”, Springer Cham Switzerland, 2016, ISBN 978-3-319-24005-3, ch. 1, 1-39.
6. **Gebeshuber I.C.** and Drack M.
Biomimetics in nanotechnology
in: *CRC Concise Encyclopedia of Nanotechnology*, (Eds. Kharisov B.I., Kharissova O.V. and Méndez U.B.), CRC Press, 2016, ch. 67, ISBN 9781466580343, pp. 871-875.
7. **Gebeshuber I.C.**
Green nanotribology and related sustainability aspects
in: *CRC Concise Encyclopedia of Nanotechnology*, (Eds. Kharisov B.I., Kharissova O.V. and Méndez U.B.), CRC Press, 2016, ch. 5, ISBN 9781466580343, pp. 37-45.
8. **Gebeshuber I.C.**
Biom mineralization in marine organisms
In: *Springer Handbook of Marine Biotechnology, Part XI (Marine biotechnological products in industrial application)*, Se-Kwon Kim (Ed.), Springer, Chapter 58, 1800 p., 2015, ISBN 978-3-642-53970-1, pp. 1279-1300.
9. **Gebeshuber I.C.**
Grüne und nachhaltige nanotribologische Systeme im Rahmen der globalen Herausforderungen
In: *Nano Risiko Governance Der gesellschaftliche Umgang mit Nanotechnologien*, (Eds. Gzásó A. and Haslinger J.), Springer Verlag Wien, 2014, 300 p., ISBN 978-3-7091-1405-6, Ch. 3, pp. 49-80.
10. **Gebeshuber I.C.** and Majlis B.Y.
Nanobioconvergence
In: *Nanotechnology in the Edge of Convergence*, Ed. Kulshreshtha A.P., Chapter 10, Majlis B.Y., Kostadinov K. G. and Bhatti A.S. (Eds.) COMSATS & NAM S&T Centre 2013, pp. 123-139.
11. Futterknecht O., Macqueen M.O., Karman S., Diah S.Z.M. and **Gebeshuber I.C.**
Bioinspired navigation realized with MEMS
In: *Nanotechnology in the Edge of Convergence*, Ed. Kulshreshtha A.P., Chapter 11, Majlis B.Y., Kostadinov K. G. and Bhatti A.S. (Eds.) COMSATS & NAM S&T Centre 2013, pp. 141-151.
12. **Gebeshuber I.C.**
Biomimetic inspiration regarding nano-tribology and materials issues in MEMS
In: *Nano-Tribology and Materials Issues in MEMS*, Eds. Sinha S.K., Satyanarayana N. and Lim S.C., Springer, 273 pages, 2013, ISBN 978-3-642-36934-6, Ch. 2, pp. 53-79.
13. **Gebeshuber I.C.**
We have to establish a common language
In: *What is the architect doing in the jungle? Biornametics*, Eds. Imhof B. and

- Gruber P., Edition Angewandte, Springer Wien New York, 100 pages, 2013, ISBN 978-3-7091-1528-2, 68-69.
14. Tomala A., Goecerler H. and **Gebeshuber I.C.**
Bridging nano- and microtribology in mechanical and biomolecular layers
In: Scanning Probe Microscopy in Nanoscience and Nanotechnology, Vol. III, Ed. Bhushan B., NanoScience and Nanotechnology Series, Springer Berlin Heidelberg, 650 pages, 2013, ISBN 978-3-642-25413-0. doi: 10.1007/978-3-642-25414-7_16, Ch. 16, 431-483.
15. **Gebeshuber I.C.** and Lee D.W.
Nanostructures for coloration (organisms other than animals)
In: Springer Encyclopedia of Nanotechnology, Eds. Bhushan B. and Nosonovsky M., Springer, 3200 pages, 2012, ISBN 978-9048197507, 1790-1803.
16. **Gebeshuber I.C.**, Gruber P. and Imhof B.
Biornametics – Architecture inspired by natural patterns
In: Springer Encyclopedia of Nanotechnology, Eds. Bhushan B. and Nosonovsky M., Springer, 3200 pages, 2012, ISBN 978-9048197507, 328-329.
17. **Gebeshuber I.C.**
Green Nanotribology and sustainable nanotribology in the frame of the global challenges for humankind
In: Green Tribology: Biomimetics, Energy Conservation, and Sustainability, Eds. Nosonovsky M. and Bhushan B., Series: Green Energy and Technology, Springer Berlin Heidelberg, 632 p., Hardcover, 2012, ISBN 978-3642236808, Ch. 5, 105-125. doi: 10.1007/978-3-642-23681-5_5
18. Gruber P., Bruckner D., Hellmich C., Schmiedmayer H.-B., Stachelberger H. and **Gebeshuber I.C.**
Preface
In: Biomimetics - Materials, Structures and Processes. Examples, Ideas and Case Studies, Eds: Gruber P., Bruckner D., Hellmich C., Schmiedmayer H.-B., Stachelberger H., **Gebeshuber I.C.**, Series: Biological and Medical Physics, Biomedical Engineering, Springer Heidelberg Dordrecht London New York, Series Editor Claus Ascheron, 266 p., 123 illus. (53 in color), Hardcover, July 15, 2011, ISBN 978-3-642-11933-0, v.
19. Stachelberger H., Gruber P. and **Gebeshuber I.C.**
Biomimetics - its technological and societal potential
In: Biomimetics - Materials, Structures and Processes. Examples, Ideas and Case Studies, Eds: Gruber P., Bruckner D., Hellmich C., Schmiedmayer H.-B., Stachelberger H., **Gebeshuber I.C.**, Series: Biological and Medical Physics, Biomedical Engineering, Springer Heidelberg Dordrecht London New York, Series Editor Claus Ascheron, 266 p., 123 illus. (53 in color), Hardcover, July 15, 2011, ISBN 978-3-642-11933-0, Ch. 1, 1-6.
20. **Gebeshuber I.C.**, Majlis B.Y. and Stachelberger H.
Biomimetics in Tribology
In: Biomimetics - Materials, Structures and Processes. Examples, Ideas and Case Studies, Eds: Bruckner D., Gruber P., Hellmich C., Schmiedmayer H.-B., Stachelberger H., **Gebeshuber I.C.**, Series: Biological and Medical Physics, Biomedical Engineering, Springer Heidelberg Dordrecht London New York, Series Editor Claus Ascheron, 266 p., 123 illus. (53 in color), Hardcover, July 15, 2011, ISBN 978-3-642-11933-0, Ch. 3, 25-50.

21. **Gebeshuber I.C.**, Gordon R. and Macqueen M.O.
Algae biofuel
In: Green Technology: An A-to-Z Guide, The SAGE Reference Series on Green Society: Towards a Sustainable Future, Vol. 10, General Ed. Mulvaney D.R., Series Ed. Robbins P., Eds. Vol. 10: Robbins P., Mulvaney D. and Golson J.G., Sage Publications, Thousand Oaks, CA, USA, 528 p., June 28, 2011, ISBN 978-1-4129-9692-1, 7-9.
22. **Gebeshuber I.C.**, Aumayr M., Hekele O., Sommer R., Goesselsberger C.G., Gruenberger C., Gruber P., Borowan E., Rosic A. and Aumayr F.
Bacilli, green algae, diatoms and red blood cells - how nanobiotechnological research inspires architecture
In: Diatoms: Ecology and Life Cycle, Ed. Compton J.C., Chapter X, Series: Environmental Science, Engineering and Technology, Nova Science Publishers, Hauppauge, New York, 317 p., January 2011, ISBN 978-1-61761-979-3, 265-300, 2011.
23. **Gebeshuber I.C.**, Drack M., Aumayr F., Winter HP. and Franek F.
Scanning Probe Microscopy: From living cells to the subatomic range
In: Biosystems Investigated by Scanning Probe Microscopy, (Eds. Fuchs H. and Bhushan B.), 1st Edition (February 23, 2010), Springer: New York, 834 p., Hardcover, ISBN 978-3-642-02404-7, 359-385, doi: 10.1007/3-540-26910-X_2 (review in Anal. Bioanal. Chem.)
24. **Gebeshuber I.C.** and Tomala A.
International Dialogue
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 356-357
25. **Gebeshuber I.C.** and Matin T.R.
Kroto, Sir Harry
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 385-386
26. **Gebeshuber I.C.** and Abdel-Aal H.A.
Molecular Assembler
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 431-432
27. **Gebeshuber I.C.** and Macqueen M.
Market Projections
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 408-409
28. **Gebeshuber I.C.** and Sukumaran M.S.
Monash Centre for Regulatory Studies
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 436-437
29. **Gebeshuber I.C.** and Laggner P.

Nano Tools

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 559-563

30. **Gebeshuber I.C.**, Beleggratis M. and Schmidt V.
Emerging Nanopatterning Methods
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 184-185
31. **Gebeshuber I.C.**
Nanogate (Tribological Coating for Automobiles)
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 485-486
32. **Gebeshuber I.C.**, Ayatollahi F. and Damghanian M.
Iran Nanotechnology Policy Studies Committee
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 368-369
33. **Gebeshuber I.C.** and Getzlaff M.
Nano-Enabled Products in Commerce
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 473-477
34. **Gebeshuber I.C.**, Quist A.P. and Abdel-Aal H.A.
Transdisciplinarity
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 768-769
35. **Gebeshuber I.C.**, Yunas J. and Fu D.C.
Nanomanufacturing
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 494-498
36. **Gebeshuber I.C.** and Laggner P.
Nanomaterials in Commerce
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 503-505
37. **Gebeshuber I.C.** and Abdel-Aal H.A.
National Institute of Occupational Safety and Health
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 578-579
38. **Gebeshuber I.C.**, Matin T.R., Halim L. and Ariffin S.

Nano-Scale Undergraduate Education Program

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 528-530

39. **Gebeshuber I.C.**, Gruber P. and Drack M.

Nanobioconvergence

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 454-456

40. **Gebeshuber I.C.** and Haseeb A.S.M.A.

Nanotechnology Institute (ASME)

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 551-552

41. **Gebeshuber I.C.** and Macqueen M.

History-in-the-Making

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 315-316

42. **Gebeshuber I.C.** and Macqueen M.

Innovationspace

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 337-339

43. **Gebeshuber I.C.** and Igenbergs K.

International Center for Technology Assessment

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 350-351

44. **Gebeshuber I.C.** and Obermayr W.

Nano-Scale Science and Engineering

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 523-528

45. **Gebeshuber I.C.**, Bais B. and Majlis B.Y.

Nanoelectronics

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 466-470

46. **Gebeshuber I.C.** and Liskiewicz T.W.

Tools

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 760-763

47. **Gebeshuber I.C.** and Getzlaff M.

Federal Institute for Occupational Safety and Health (Germany)

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 237-238

48. **Gebeshuber I.C.** and Cannarozzi G.

Nanologues

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 493-494

49. **Gebeshuber I.C.** and Getzlaff M.

Association of German Engineers

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 33-34

50. **Gebeshuber I.C.** and Macqueen M.

Global Value Chains

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 290-291

51. **Gebeshuber I.C.**

International SPM Image Competition

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, Thousand Oaks, CA, USA, ISBN-10 1412969875, ISBN-13 978-1412969871, 360-361

52. **Gebeshuber I.C.**, Drack M., Aumayr F., Winter HP. and Franek F.

Scanning Probe Microscopy: From living cells to the subatomic range

In: Applied Scanning Probe Methods III: Characterization (NanoScience and Technology), Paperback (Eds. B. Bhushan and H. Fuchs), invited chapter, Springer Berlin Heidelberg, 2010, ISBN 978-3-642-06596-5, 27-53. Softcover reprint of hardcover 1st ed. 2006 edition (November 29, 2010), doi: 10.1007/3-540-26910-X_2

53. Gordon R., Witkowski A., **Gebeshuber I.C.** and Allen C.S.

The diatoms of Antarctica and their potential roles in nanotechnology

In: Antarctica. Time of Change, English edition, Eds. Masó M., Masó M. and Chillida A., Editions ACTAR, Barcelona, 2010, ISBN 978-84-393-8284-3 (Arts Santa Mònica), ISBN 978-84-92861-26-2 (ACTAR), 84-95

54. Gordon R., Witkowski A., **Gebeshuber I.C.** and Allen C.S.

Les diatomeas de la Antártida y su papel potencial en la nanotecnología

In: Antártida. Tiempo de Cambio, Spanish edition, Eds. Masó M., Masó M. and Chillida A., Editions ACTAR, Barcelona, 2010, ISBN 978-84-393-8285-0 (Arts Santa Mònica), ISBN 978-84-92861-32-3 (ACTAR), 84-96

55. Gordon R., Witkowski A., **Gebeshuber I.C.** and Allen C.S.

Les diatomees de l'Antàrtida i el seu paper potencial en la nanotecnologia

In: Antàrtida. Temps de Canvi, Catalan edition, Eds. Masó M., Masó M. and Chillida A., Editions ACTAR, Barcelona, 2010, ISBN 978-84-393-8283-6 (Arts Santa Mònica), ISBN 978-84-92861-31-6 (ACTAR), 84-95

56. Lanza R. und **Gebeshuber I.C.**
Science and Art: Genderaspekte der naturwissenschaftlichen und kuenstlerischen Untersuchungen komplexer biogener Glasstrukturen (Kieselalgen). Die Kieselalge - Das Objekt der Begierde
In: Sammelband Kunst - Forschung - Geschlecht, Eds. A. Schiller, M. Pimminger and E. Blimlinger, Universität für angewandte Kunst, Wien, 2010, ISBN 978-3-85211-154-4, 8-27
57. **Gebeshuber I.C.**, Aumayr M., Hekele O., Sommer R., Goesselsberger C.G., Gruenberger C., Gruber P., Borowan E., Rosic A. and Aumayr F.
Bacilli, green algae, diatoms and red blood cells – how nanobiotechnological research inspires architecture
Chapter IX in: Bio-Inspired Nanomaterials and Nanotechnology, Ed. Zhou Y. Nova Science Publishers 2010, Series: Nanotechnology Science and Technology, Nova Science Publishers (Hauppauge, New York), ISBN-10 1608761053, ISBN-13 978-1608761050, 207-243
58. **Gebeshuber I.C.**, Drack M., Aumayr F., Winter HP. and Franek F.
Scanning Probe Microscopy: From living cells to the subatomic range
In: Applied Scanning Probe Methods III: Characterization (NanoScience and Technology), Eds. Bhushan B. and Fuchs H. Springer Berlin Heidelberg, ISBN 978-3-540-26909-0 (Print) 978-3-540-26910-6 (Online), 27-53, 2006. DOI 10.1007/3-540-26910-X_2
59. **Gebeshuber I.C.**, Smith R.A.P., Aumayr F. and Winter HP.
Scanning Probe Microscopy across dimensions
In: From Cells to Proteins: Imaging Nature across Dimensions, Eds. Evangelista V., Barsanti L., Passarelli V. and Gualtieri P. NATO Security through Science Series, Sub-Series B: Physics and Biophysics, Vol. 3, Springer Netherlands, ISBN 978-1-4020-3614-9, 139-165, 2005
60. **Gebeshuber I.C.** and Rattay F.
Coding efficiency of inner hair cells at the threshold of hearing
In: Computational Models of Auditory Function, Eds. Greenberg S. & Slaney M. ISBN 90 5199 457 5, IOS Press, Amsterdam, NATO ASI Series A Vol. 312, 5-16, 2001
61. **Gebeshuber I.C.**, Mladenka A., Rattay F. and Svrcek-Seiler W.A.
Brownian motion and the ability to detect weak auditory signals
In: Chaos and Noise in Biology and Medicine, Eds. Barbi M. and Chillemi S. World Scientific Press, 230-237, 1999

eBook Chapters

1. **Gebeshuber I.C.**
Biom mineralization in marine organisms
In: Springer Handbook of Marine Biotechnology, Part XI (Marine biotechnological products in industrial application), Se-Kwon Kim (Ed.), Springer, Chapter 58, 1800 p., 2015, ISBN 978-3-642-53970-1, pp. 1279-1300.
http://link.springer.com/chapter/10.1007/978-3-642-53971-8_58
2. **Gebeshuber I.C.**
Grüne und nachhaltige nanotribologische Systeme im Rahmen der globalen

Herausforderungen

In: Nano Risiko Governance Der gesellschaftliche Umgang mit Nanotechnologien, (Eds. Gzásó A. and Haslinger J.), Springer Verlag Wien, 2014, 300 p., ISBN 978-3-7091-1405-6, Ch. 3, pp. 49-80.

http://link.springer.com/chapter/10.1007%2F978-3-7091-1405-6_3

3. **Gebeshuber I.C.**

Biomimetic inspiration regarding nano-tribology and materials issues in MEMS

In: Nano-Tribology and Materials Issues in MEMS, Eds. Sinha S.K., Satyanarayana N. and Lim S.C., Springer, 273 pages, 2013, ISBN 978-3-642-36934-6, Ch. 2, in press

<http://www.springer.com/engineering/book/978-3-642-36934-6>

4. Tomala A., Goecerler H. and **Gebeshuber I.C.**

Bridging nano- and microtribology in mechanical and biomolecular layers

In: Scanning Probe Microscopy in Nanoscience and Nanotechnology, Vol. III, Ed. Bhushan B., NanoScience and Nanotechnology Series, Springer Berlin Heidelberg, 650 pages, ISBN 978-3-642-25413-0. doi: 10.1007/978-3-642-25414-7_16, Ch. 16, 431-483, 2013.

<http://www.springer.com/physics/condensed+matter+physics/book/978-3-642-25413-0>

5. **Gebeshuber I.C.** and Lee D.W.

Nanostructures for coloration (organisms other than animals)

In: Springer Reference Encyclopedia of Nanotechnology, Eds. Bhushan B. and Nosonovsky M., Springer, 3200 pages, ISBN 978-9048197507, 1790-1803, 2012.

<http://www.springer.com/materials/nanotechnology/book/978-90-481-9750-7>

6. **Gebeshuber I.C.**, Gruber P. and Imhof B.

Biornametics – Architecture inspired by natural patterns

In: Springer Reference Encyclopedia of Nanotechnology, Eds. Bhushan B. and Nosonovsky M., Springer, 3200 pages, ISBN 978-9048197507, 328-329, 2012.

<http://www.springer.com/materials/nanotechnology/book/978-90-481-9750-7>

7. **Gebeshuber I.C.**

Green Nanotribology and sustainable nanotribology in the frame of the global challenges for humankind

In: Green Tribology - Biomimetics, Energy Conservation, and Sustainability, (Eds. Nosonovsky M. and Bhushan B.), Series: Green Energy and Technology, Springer Berlin Heidelberg, 632 p., ISBN 978-3642236808, Ch. 5, 105-125. doi: 10.1007/978-3-642-23681-5_5

<http://www.springer.com/engineering/energy+technology/book/978-3-642-23680-8>

8. Gruber P., Bruckner D., Hellmich C., Schmiedmayer H.-B., Stachelberger H. and **Gebeshuber I.C.**

Preface

In: Biomimetics - Materials, Structures and Processes. Examples, Ideas and Case Studies, Eds: Gruber P., Bruckner D., Hellmich C., Schmiedmayer H.-B., Stachelberger H., **Gebeshuber I.C.**, Series: Biological and Medical Physics, Biomedical Engineering, Springer Heidelberg Dordrecht London New York, Series Editor Claus Ascheron, doi: 10.1007/978-3-642-11934-7, eISBN 978-3-642-11934-7, p. v, 2011.

<http://www.springer.com/physics/biophysics+%26+biological+physics/book/978-3-642-11933-0>

9. Stachelberger H., Gruber P. and **Gebeshuber I.C.**
Biomimetics - its technological and societal potential
In: Biomimetics - Materials, Structures and Processes. Examples, Ideas and Case Studies, Eds: Gruber P., Bruckner D., Hellmich C., Schmiedmayer H.-B., Stachelberger H., **Gebeshuber I.C.**, Series: Biological and Medical Physics, Biomedical Engineering, Springer Heidelberg Dordrecht London New York, Series Editor Claus Ascheron, doi: 10.1007/978-3-642-11934-7, eISBN 978-3-642-11934-7, p. 1-6, 2011.
<http://www.springer.com/physics/biophysics+%26+biological+physics/book/978-3-642-11933-0>
10. **Gebeshuber I.C.**, Majlis B.Y. and Stachelberger H.
Biomimetics in Tribology
In: Biomimetics - Materials, Structures and Processes. Examples, Ideas and Case Studies, Eds: Bruckner D., Gruber P., Hellmich C., Schmiedmayer H.-B., Stachelberger H., **Gebeshuber I.C.**, Series: Biological and Medical Physics, Biomedical Engineering, Springer Heidelberg Dordrecht London New York, Series Editor Claus Ascheron, doi: 10.1007/978-3-642-11934-7, eISBN 978-3-642-11934-7, p. 25-50, 2011.
<http://www.springer.com/physics/biophysics+%26+biological+physics/book/978-3-642-11933-0>
11. **Gebeshuber I.C.**, Gordon R. and Macqueen M.O.
Algae biofuel
In: Green Technology: An A-to-Z Guide, eReference, The SAGE Reference Series on Green Society: Towards a Sustainable Future, Vol. 10, Eds. Robbins P., Mulvaney D. and Golson J.G., Sage Publications, Thousand Oaks, CA, USA, eISBN 978-1-4129-7570-4, p. 7-9, 2011.
<http://www.sagepub.com/books/Book234026?siteId=sage-us&prodTypes=any&q=green+technology&fs=1>
12. **Gebeshuber I.C.**, Aumayr M., Hekele O., Sommer R., Goesselsberger C.G., Gruenberger C., Gruber P., Borowan E., Rosic A. and Aumayr F.
Bacilli, green algae, diatoms and red blood cells - how nanobiotechnological research inspires architecture
In: Diatoms: Ecology and Life Cycle (Ed. Compton J.C.), Series: Environmental Science, Engineering and Technology, Nova Science Publishers, Hauppauge, New York, ISBN 978-1-61122-400-9, 2011.
https://www.novapublishers.com/catalog/product_info.php?products_id=18116
13. **Gebeshuber I.C.** and Matin T.R.
Kroto, Sir Harry
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
14. **Gebeshuber I.C.** and Macqueen M.
Market Projections
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
15. **Gebeshuber I.C.** and Abdel-Aal H.A.
Molecular Assembler

- In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
16. **Gebeshuber I.C.** and Tomala A.
International Dialogue
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
17. **Gebeshuber I.C.** and Sukumaran M.S.
Monash Centre for Regulatory Studies
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
18. **Gebeshuber I.C.** and Laggner P.
Nano Tools
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
19. **Gebeshuber I.C.**, Beleggratis M. and Schmidt V.
Emerging Nanopatterning Methods
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
20. **Gebeshuber I.C.**
Nanogate (Tribological Coating for Automobiles)
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
21. **Gebeshuber I.C.**, Ayatollahi F. and Damghanian M.
Iran Nanotechnology Policy Studies Committee
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
22. **Gebeshuber I.C.** and Getzlaff M.
Nano-Enabled Products in Commerce
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
23. **Gebeshuber I.C.**, Quist A.P. and Abdel-Aal H.A.
Transdisciplinarity
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
24. **Gebeshuber I.C.**, Yunas J. and Fu D.C.
Nanomanufacturing
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
25. **Gebeshuber I.C.** and Laggner P.
Nanomaterials in Commerce
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
26. **Gebeshuber I.C.** and Abdel-Aal H.A.
National Institute of Occupational Safety and Health

- In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
27. **Gebeshuber I.C.**, Matin T.R., Halim L. and Ariffin S.
Nano-Scale Undergraduate Education Program
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
28. **Gebeshuber I.C.**, Gruber P. and Drack M.
Nanobioconvergence
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
29. **Gebeshuber I.C.** and Haseeb A.S.M.A.
Nanotechnology Institute (ASME)
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
30. **Gebeshuber I.C.** and Macqueen M.
History-in-the-Making
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
31. **Gebeshuber I.C.** and Macqueen M.
Innovationspace
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
32. **Gebeshuber I.C.** and Igenbergs K.
International Center for Technology Assessment
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
33. **Gebeshuber I.C.** and Obermayr W.
Nano-Scale Science and Engineering
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
34. **Gebeshuber I.C.**, Bais B. and Majlis B.Y.
Nanoelectronics
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
35. **Gebeshuber I.C.** and Liskiewicz T.W.
Tools
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
36. **Gebeshuber I.C.** and Getzlaff M.
Federal Institute for Occupational Safety and Health (Germany)
In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3
37. **Gebeshuber I.C.** and Cannarozzi G.
Nanologues

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3

38. **Gebeshuber I.C.** and Getzlaff M.

Association of German Engineers

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3

39. **Gebeshuber I.C.** and Macqueen M.

Global Value Chains

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3

40. **Gebeshuber I.C.**

International SPM Image Competition

In: Encyclopedia of Nanoscience and Society, Eds. Guston D. and Golson J.G., 1st edition (July 14, 2010), Sage Publications, USA, e-ISBN 978-1-4129-7209-3

41. **Gebeshuber I.C.**, Drack M., Aumayr F., Winter HP. and Franek F.

Scanning Probe Microscopy: From living cells to the subatomic range

In: Applied Scanning Probe Methods III: Characterization (NanoScience and Technology), eBook (Eds. B. Bhushan and H. Fuchs), invited chapter, Springer Berlin Heidelberg, e-ISBN-13 978-3-540-26910-6, 27-53. Kindle Edition, November 29, 2010.

<http://www.springer.com/materials/nanotechnology/book/978-3-540-26909-0>

42. **Gebeshuber I.C.**, Aumayr M., Hekele O., Sommer R., Goesselsberger C.G., Gruenberger C., Gruber P., Borowan E., Rosic A. and Aumayr F.

Bacilli, green algae, diatoms and red blood cells - how nanobiotechnological research inspires architecture

Chapter IX in: Bio-Inspired Nanomaterials and Nanotechnology, Ed. Yong Zhou, Series: Nanotechnology Science and Technology, Nova Science Publishers (Hauppauge, New York), 2010

Papers Resulting from Presentations at International Conferences

1. Karman S.B., Diah S.Z.M. and Gebeshuber I.C.

The 'secret gems' of polarized light-based navigation systems from the Islamic view

In: Proceedings of i-Inova 2013 4th Exposition on Islamic innovation 2013, Creativity & Innovation Seminar, Universiti Sains Islam Malaysia (USIM), Kuala Lumpur, 2013, ISBN 978-967-5852-23-7, pp. 354-358.

2. **Gebeshuber I.C.**, Gruber P. and Imhof B.

Sustainability in Science, Architecture and Design: Lessons from Attenborough, Loos and Biornametics

Proceedings of the Sustainability through Biomimicry Conference, Sustainability through Biomimicry 2012, College of Design, Dammam, Kingdom of Saudi Arabia, Nov. 27-28, 2012, invited paper, p. 235-255.

3. Mueller J. and **Gebeshuber I.C.**

Science Graffiti

- Proc. Momentumkongress 2012, Hallstatt, Austria, September 27-30, 2012
4. Hobl R., Holtgrewe U. and **Gebeshuber I.C.**
Das Eliten-, Herrschafts- und Demokratietheater
Proc. Momentumkongress 2012, Hallstatt, Austria, September 27-30, 2012
 5. **Gebeshuber I.C.**, Karman S., Diah S.Z.M., Macqueen M.
Biomimetic development of technology to assist, enhance and expand human sensory perceptions - On the importance of collaboration with the fundamental sciences
Solid Sci. Technol. Express 8(1), 2012, p. 1-3.
 6. Futterknecht O. and **Gebeshuber I.C.**
Importance of fundamental and applied science in higher education
Solid Sci. Technol. Express 8(3), 2012
 7. Diah S.Z.M., Karman S.B., Futterknecht O. and **Gebeshuber I.C.**
The 'navigational sense' in living nature: A survey for engineers
In: Geoinformation - Catalyst for Planning, Development and Good Governance. Applied Geoinformatics for Society and Environment AGSE 2012, Behr F.-J., Rahman A.A., Zimmermann M. and Pradeepkumar A.P. (Eds.), AGSE Publishing, Karlsruhe, Germany, ISBN 978-3-943321-06-7, p. 79-84.
 8. Karman S.B., Diah S.Z.M., Futterknecht O. and **Gebeshuber I.C.**
Towards a 'navigational sense' for humans: Biomimetic polarized light-based navigation system
In: Geoinformation - Catalyst for Planning, Development and Good Governance. Applied Geoinformatics for Society and Environment AGSE 2012, Behr F.-J., Rahman A.A., Zimmermann M. and Pradeepkumar A.P. (Eds.), AGSE Publishing, Karlsruhe, Germany, ISBN 978-3-943321-06-7, p. 71-76.
 9. Futterknecht O., Macqueen M.O., Karman S., Diah S.Z.M. and **Gebeshuber I.C.**
Bioinspired navigation and water vapour detection realized with MEMS
Proc. 5th IMEN LIPI Joint Seminar on Microelectronic Devices, System and Instrumentations. ISBN 978-602-19889-0-9, 2011, p. 1-6.
 10. **Gebeshuber I.C.**, Zobl S. and Lang-Lepschy D.
Nachhaltige egalitaere Bildung
Proc. Momentumkongress 2011, Hallstatt, Austria, October 27-30, 2011
 11. **Gebeshuber I.C.** and Macqueen M.
Towards a new type of science for successfully addressing the global challenges for humankind
Proc. International Seminar on Environmental Sciences "Environmental based on science research for a better life", Padang, Indonesia, **invited paper**. Eds: Rikha Septiani Yuda, Maharani Hazar, Zul Arifin. ISBN 978-602-18475-0-3, 2011, p. 1-11.
 12. Lang-Lepschy D. and **Gebeshuber I.C.**
Krisenerfahrungen der Gleichheit - Ungleichheit erkennen, aufzeigen und darstellen
Proc. Momentumkongress 2011, Hallstatt, Austria, October 27-30, 2011
 13. Zobl S. and **Gebeshuber I.C.**
Survival of the fittest 2011?

- Proc. Momentumkongress 2011, Hallstatt, Austria, October 27-30, 2011
14. **Gebeshuber I.C.**, Pichler D. and Majlis B.Y.
On the way towards a MEMS-assisted magnetic sense for humans
Proc. 5th Korea-Malaysia Joint Workshop on Nanotechnology, October 19-22, 2011, Seoul, Korea, p. 119-129.
 15. **Gebeshuber I.C.** and Majlis B.Y. (2011)
Green Nanotribology - Challenges, Development and Opportunities
Proc. ECOTRIB Viennano '11, Vienna, Austria, ISBN 978-3-901657-39-9, p. 13-14.
 16. Zobl S., Matin T.R., Majlis B.Y., Schwerte T., Schreiner M. and **Gebeshuber I.C.**
Structural colors in the focus of nanoengineering and the arts: A survey on state-of-the art developments
Proc. ECOTRIB Viennano '11, 2011, Vienna, Austria, ISBN 978-3-901657-39-9, p. 815-821.
 17. Bahadorimehr A., Jumril Y., **Gebeshuber I.C.**, Dee C.F. and Majlis B.Y.
Low cost fabrication of passive microfluidic devices
Proc. 10th IEEE Conference on Nanotechnology NANO 2010, doi: 10.1109/NANO.2010.5697855, ISBN 978-142447033-4, p. 1007-1011.
 18. **Gebeshuber I.C.** and Majlis B.Y.
Bioinspired MEMS to assist, enhance and expand human auditory capabilities: Development of a new generation of MEMS in medicine
Proc. 4th Korea-Malaysia Joint Workshop on Nanotechnology, December 13, 2010, Putrajaya, Malaysia, p. 77-83.
 19. Matin T.R., Leong M.K., Majlis B.Y. and **Gebeshuber I.C.**
Correlating nanostructures with function: Structural colours in wings of a Malaysian bee
AIP Conf. Proc. 1284(1), 2010. doi: 10.1063/1.3515563, ISSN 0094-243X, ISBN 978-0-7354-0838-8, p. 5-14.
 20. Esichaikul R., Macqueen M. and **Gebeshuber I.C.**
3D Corporate tourism: Application-oriented problem solving in tropical rainforests
Proceedings 8th Asia-Pacific CHRIE Conference “Integrating Hospitality & Tourism in Asia and Pacific”, August 12-14, 2010. Phuket, Thailand, ISBN 979-616-7375-22-9, p. 146-155.
 21. Zika T, Buschbeck F., Preisinger G., **Gebeshuber I.C.** and Groeschl M. (2009)
Surface damage of rolling bearings caused by discrete current flow
Proc. Symposium 2009 der Österreichischen Tribologischen Gesellschaft Wien, 26. November 2009 “Lebensdauer und Energieeffizienz - Herausforderungen im Maschinenbau und in der Schmierungstechnik”, Österreichische Tribologische Gesellschaft, ISBN 978-3-901657-34-4, Eds. Friedrich Franek and Andreas Pauschitz, p. 219-227.
 22. **Gebeshuber I.C.**, H. Stachelberger and B.Y. Majlis (2009)
Exploring the innovation potential of biomimetics for novel 3D micro- and nano-electromechanical Systems (MEMS and NEMS)
Proc. Sixth Plant Biomechanics Conference, November 16th - 21st, 2009, Cayenne, French Guyana, France, Ed. Bernard Thibaut, p. 374-381.

23. **Gebeshuber I.C.** (2009)
Structural colors in biology and how these natural micro- and nano structures inspires current nanotechnology
Proc. International Seminar on Science and Technology 2009 ISST 2009 “The role of sciences and technology to improve the quality of life”, October 24, 2009, Bukittinggi, Indonesia, ISBN 978-602-96614-0-8, p. 1-16.
24. **Gebeshuber I.C.** and Majlis B.Y. (2009)
Applied biomimetics: Low noise aircraft design
Jurnal Elektronika dan Telekomunikasi 9(2), ISSN 1411-8289, p. 12-19.
25. **Gebeshuber I.C.** (2009)
Nanomedicine and Biomimetic Nanotechnology - Concepts and Applications
Proceedings Second International Workshop on Nanotechnology and Application IWNA 2009, Vung Tau, Viet Nam, November 12-14, 2009, p. 152-153 (incl. biography).
26. **Gebeshuber I.C.**, Haidinger M., Goesselsberger C.G., Wollmann E. and Hekele O. (2009)
Nanomedicine: possible early diagnostics of leukemia via atomic force microscopy of red blood cells
Proc. Nanotech Malaysia 2009 Conference, KLCC, Kuala Lumpur Convention Centre, Malaysia, October 27-29, 2009, ISBN 9789834 492106, p. 368-370.
27. **Gebeshuber I.C.** and Majlis B.Y. (2009)
Biomimetics
Proc. Nanotech Malaysia Conference, KLCC Convention Centre, Kuala Lumpur, Malaysia, October 27-29, 2009, ISBN 9789834 492106, ISBN 9789834 492106.
28. Matin T.R., Menon P.S., Shaari S. and **Gebeshuber I.C.** (2009)
Photonic crystal micro- and nanostructures in iridescent butterfly wings
Proc. Nanotech Malaysia 2009 Conference, KLCC, Kuala Lumpur Convention Centre, Malaysia, October 27-29, 2009, ISBN 9789834 492106, p. 170-171.
29. **Gebeshuber I.C.**, Majlis B.Y. and Stachelberger (2009)
Tribology in biology: biomimetic studies across dimensions and across fields
Proc. National Tribology Conference 2009 (NTC2009), Eds. M.H. Hassan, A.S.M.A. Haseeb, S. Rahman, M.J. Ghazali and J.A. Ghani, ISBN 978-983-42040-1-3, p. 157-164.
30. Goesselsberger C.G., Hekele O., Brandstetter M., Aumayr M., Sommer R. and **Gebeshuber I.C.** (2009)
Topography and stiffness characteristics of Bacillus subtilis UV-resistant and UV-sensitive spores
Proc. International Conference on Bioengineering & Biomaterials (IC2B), March 18-20, Meknes, Morocco.
31. Neutsch L. **Gebeshuber I.C.**, Aumayr F. and Gabor F. (2009)
Cells feel their surrounding - implications for biomedicine and drug delivery
Sci. Pharm. 77(1), p. 188.
doi: 10.3797/scipharm.oepg.21.SL-21
32. **Gebeshuber I.C.**, Majlis B.Y., Neutsch L., Aumayr F. and Gabor F. (2009)
Nanomedicine and Biomimetics: Life Sciences meet Engineering & Physics

- Proc. 3rd Vienna International Conference Micro- and Nanotechnology - Viennano09, Eds. W.J. Bartz and F. Franek, ISBN 978-3-901657-33-7 (CD), ISBN 978-3-901657-32-0 (book), p. 17-23.
33. **Srajer J. and Gebeshuber I.C.** (2009)
Diatom nanotechnology: fluid dynamic finite element modelling correlates structure with function in Rutilaria philippinarum
Proc. 3rd Vienna International Conference Micro- and Nanotechnology - Viennano09, Eds. W.J. Bartz and F. Franek, ISBN 978-3-901657-33-7 (CD), ISBN 978-3-901657-32-0 (book), p. 415-420.
34. **Bogus-Tomala A., Naveira-Suarez A., Gebeshuber I.C. and Pasaribu R.** (2009)
Effect of base oil polarity on micro and nano friction behaviour of base oil +ZDDP solutions
Proc. 3rd Vienna International Conference Micro- and Nanotechnology - Viennano09, Eds. W.J. Bartz and F. Franek, ISBN 978-3-901657-33-7 (CD), ISBN 978-3-901657-32-0 (book), p. 97-102.
35. **Gebeshuber I.C., Doerr N. and Tomala A.** (2008)
Ultradünne Schichten aus Ethanolamin - energieeffiziente wartungsarme Schmierstoffe
Proc. Österr. Tribol. Ges. Symp. "Innovationen bei Werk- und Schmierstoffen für moderne, umweltorientierte Tribosysteme", ÖTG 2008, ISBN 978-3-901657-30-6, p. 157-169.
36. **Gebeshuber I.C.** (2008)
TU BIONIK universitätsweites Kooperationszentrum Bionik/Biomimetics
Fachtagung Bionik - BiologInnen und TechnikerInnen schauen sich über die Schulter, Schönbrunn, Vienna, Austria, BMVIT 2008, p. 93-99.
37. **Bogus A., Gebeshuber I.C., Dörr N., Werner W.S.M. and Störi H.** (2008)
Monomolecular layers: energy efficient low maintenance lubricants
Proc. 13th Nordic Symposium on Tribology NORDTRIB, June 2008, Tampere, Finland, paper NT2008-24-3, p. 1-11.
38. **Gebeshuber I.C.** (2007)
Social, health and ethical implications of nanotechnology
Proc. 2nd Vienna Int. Conf. Micro. Nanotech. - Viennano07
ISBN 978-3-901657-25-2 (book), ISBN 978-3-901657-27-6 (CD), p. 15-17.
39. **Gebeshuber I.C., Smith R.A.P., El-Said A.S., Kaska K., Pleschko S., Gruenberger C., Winter HP. and Aumayr F.** (2006)
UHV and ambient AFM investigations of silicon surfaces nanostructured with singly- and multiply-charged ions
Proc. VIII. Linz Winter Workshop "Advances in Single Molecule Research for Biology and Nanoscience", Trauner Verlag Universität, Schriftenreihe Biophysik, Band 1, Eds: Hinterdorfer P., Schuetz G. and Pohl P., Linz, Austria, ISBN 3-85499-163-0, ISBN 978-3-85499-163-2, p. 117-122.
40. **Gebeshuber I.C., Smith R.A.P., Fuersatz M., Kaska K., Pleschko S., Winter HP. and Aumayr F.** (2006)
Nanostructuring surfaces with slow multiply charged ions
NanoSingapore2006, IEEE Conference on Emerging Technologies - Nanoelectronics, CD ROM, ISBN 0-7803-9358-9.

41. **Gebeshuber I.C.**, Pauschitz A. and Franek F. (2006)
Biotribological model systems for emerging nano-scale technologies
NanoSingapore2006, IEEE Conference on Emerging Technologies - Nanoelectronics, CD ROM, ISBN 0-7803-9358-9.
42. **Gebeshuber I.C.**, Smith R.A.P., Pleschko S., Gruenberger C., Kaska K., Fuersatz M., Winter H. and Aumayr F. (2006)
Nanostructuring surfaces with slow multiply charged ions
Proc. “Emerging Technologies - Nanoelectronics”, IEEE Conference, ISBN 0-7803-9357-0, p. 324-327.
43. **Gebeshuber I.C.**, Pauschitz A. and Franek F. (2006)
Biotribological model systems for emerging nano-scale technologies
Proc. “Emerging Technologies - Nanoelectronics”, IEEE Conference, ISBN 0-7803-9357-0, p. 396-400.
44. **Gebeshuber I.C.**, Stachelberger H., Drack M. and Franek F. (2005)
Biotribology at the micro- and nanoscale as exemplified by diatoms
Proc. 1st Vienna International Conference Micro-and Nano-Technology, March 9-11, 2005, Vienna, Austria, p. 135-140.
45. Dörr N. and **Gebeshuber I.C.** (2004)
Schmierstoff-Grenzflächen-Wechselwirkungen in Tribosystemen
Z. Tribologie und Schmierungstechnik, 51. Jg., Heft 1/2004, expert-Verlag, Renningen, Germany, ISSN 0724-3472, p. 67-68.
46. **Gebeshuber I.C.**, Stachelberger H. and Drack M. (2004)
Surfaces in relative motion: bionanotribological investigations
In: First International Industrial Conference Bionik 2004, Eds. Boblan I. and Bannasch R.), Fortschr.-Ber. VDI Reihe 15 Nr. 249, VDI Verlag Düsseldorf, Germany.
47. Störi H., Kleiner R., Werner W.S.M., Kolm R., **Gebeshuber I.C.** and Jogl C. (2004)
Characterisation of monomolecular lubricant films
Proc. 14th International Colloquium Tribology, Technische Akademie Esslingen, January 13-15, Volume III, p. 1663-1666.
48. Doerr N. and **Gebeshuber I.C.** (2004)
Schmierstoff-Grenzflächen Wechselwirkungen in Tribosystemen
Proc. 14th International Colloquium Tribology, Technische Akademie Esslingen, Volume I, January 13-15, 2004, p. 501-502.
49. Kolm R., Kleiner R., **Gebeshuber I.C.**, Werner W. und Störi H. (2003)
Charakterisierung von monomolekularen Schmierstofffilmen
Proc. ÖTG Jahressymposium 2003, Vienna and Wiener Neustadt, Austria.
50. Bleda-Maza de Lizana M., Brandt H., **Gebeshuber I.C.**, MacPherson M., Matsuguchi T. and Számadó S. (2003)
Does complexity always increase during major evolutionary transitions?
Proc. Santa Fe Institute Complex Systems Summer School 2003, Santa Fe, NM/USA.
51. **Gebeshuber I.C.** and Rattay F. (1998)
Modeling the human hearing threshold curve for pure tones: the effects of stere-

ociliary Brownian motion, endogenous transduction channel noise, stochasticity in neurotransmitter release and innervation density in various frequency bands

Proc. NATO ASI “Computational Hearing”, Eds. Greenberg S. and Slaney M.), p. 7-12.

52. **Gebeshuber I.C.**, Pontes Pinto J., Naves Leao R., Mladenka A. and Rattay F. (1998)
Stochastic resonance in the inner ear: the effects of endogenous transduction channel noise and stereociliary thermal motions on the human hearing threshold in various frequency bands
ARGESIM Report No. 10: Proc. TU-BioMed Minisymposium 1998 “Brain Modeling” (Ed. Rattay F.), p. 40-44.
53. **Gebeshuber I.C.**, Ratzer B. and Wild C. (1997)
Health care technology assessment in biomedical engineering: social science accompanying research
Med. Biol. Eng. Comput. 35(II), p. 1254.
54. **Gebeshuber I.C.**, Ratzer B. and Wild C. (1997)
Sozialwissenschaftliche Begleitforschung biomedizinischer Projekte an der TU-Wien
TA-Datenbank-Nachrichten Nr. 2, 6. Jahrgang - Juli 1997, p. 37-41.
55. Ratzer B., **Gebeshuber I.C.** and Wild C. (1997)
Biomedical Engineering: Social Science Accompanying Research
Annual Meeting of the International Society of Technology Assessment in Health Care 13, p. 47.
56. **Gebeshuber I.C.**, Ratzer B. and Wild C. (1997)
Sozialwissenschaftliche Begleitung biomedizinischer Forschung
Soziale Technik 1, p. 12-15.
57. **Gebeshuber I.C.** and Ratzer B. (1996)
Eine Sozialwissenschaftliche Begleitstudie von Projekten im Bereich Biomedizinischer Technik an der TU-Wien
Biomedizinische Technik 41(1), p. 580-581.
58. **Gebeshuber I.C.** (1996)
The mechano-electric transduction in the inner ear
Biomedizinische Technik 41(1), p. 618-619.

Scientific Works, submitted and in preparation

1. Hassan M.B., Ghazali M.J.B., Kasolang S.B., Abdollah M.F.B., **Gebeshuber I.C.** and El Mansori M. (Eds., in preparation)
Recent Advances and Challenges in Tribology Research for Sustainable Development
Special Issue, Advances in Tribology
2. **Gebeshuber I.C.**, Chawla C., Gururaja K.V. and Gordon R. (in preparation)
Early development of caecilians/apoda. 1. Translation of Sarasin & Sarasin (1889) 'On the Developmental History and Anatomy of the Ceylonese caecilian

Ichthyophis glutinosu'

3. Chawla C., Gururaja K.V., **Gebeshuber I.C.** and Gordon R. (in preparation)
Early development of caecilians/apoda. 2. Review of the literature and a proposed program of research
4. **Gebeshuber I.C.** and Macqueen M.O. (in preparation)
Tarnung
5. **Gebeshuber I.C.** and van Aken G. (in preparation)
*Special Issue on “Friction and Lubricants Related to Human Bodies”
Lubricants (ISSN 2075-4442)*
6. Zobl S., Salvenmoser W., Schwerte T., **Gebeshuber I.C.** and Schreiner M. (submitted)
Morpho peleides butterfly wing scale imprints as structural colour stamp
7. Gebeshuber I.C. (submitted)
Ecotribology - Development, Prospects and Challenges
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