

Prof.Dr. Stanislav N. Gorb

Personal Data

Born 19.06.1965, male

Affiliation

Institution Zoological Institute, Christian Albrecht University of Kiel
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Current Position and Status

- Professor (W3) "Functional Morphology and Biomechanics", Zoological Institute, Christian-Albrechts-University (CAU) Kiel

Scientific Education

1981-1985 Biology (Zoology and Botany), Kiev University, Ukraine

Academic Qualifications

2006 Habilitation in Biology, University of Freiburg, Germany
1991 Ph.D., Institute of Zoology, Ukrainian Academy of Sciences, Kiev, Ukraine
1989 Staatsexamen in Biology, Kiev University

Research Experience

since 2008 Professor (C3) of "Functional Morphology and Biomechanics", CAU Kiel
2002-2008 Group Leader at Max Planck Institute for Metals Research, Stuttgart
1999-2002 Group Leader at Max Planck Institute for Developmental Biology, Tübingen
1998-1999 Research Assistant (C1), Institute of Systematic Zoology, University of Jena
1996-1998 Research Fellow, Max Planck Institute for Developmental Biology, Tübingen
1994-1995 PostDoc, Institute of Zoology, Ukrainian Academy of Sciences, Kiev, Ukraine
1992-1994 PostDoc, Institute of Zoology, University of Vienna, Austria

Important Prizes / Other Functions

since 2010 Corresponding member of Academy of the Science and Literature Mainz
since 2011 Member of the National Academy of Sciences Leopoldina
2011 International Forum Design Gold Award (category Materials)
2011 Materialica "Best of" Award
2011 Transfer-Award of Schleswig-Holstein
2005 Science Award of the Donors' Association for the Promotion of Science and Humanities in Germany (Stifterverband für die Deutsche Wissenschaft);

10 Selected Peer-Reviewed Scientific Publications

1. Alexander E. Filippov, **Stanislav N. Gorb**. Spatial model of the gecko foot hair: functional significance of highly specialized non-uniform geometry. *Interface Focus*, 2015, 5(1) No. 20140065: 1-7
2. Constanze Grohmann, Miriam J. Henze, Thomas Nørgaard, **Stanislav N. Gorb**. Two functional types of attachment pads on a single foot in the Namibia bush cricket *Acanthoproctus diadematus* (Orthoptera: Tettigoniidae). *Proceedings of the Royal Society B*, 2015, 282(1809) No. 20142976: 1-8
3. Clemens F. Schaber, Heinlein C. F., Keeley T., G., Jörg J. Schneider, **Stanislav N. Gorb**. Tribological properties of vertically aligned carbon nanotube arrays. *Carbon*, 2015, 94: 396-404
4. Jonas O. Wolff, Michael Seiter, **Stanislav N. Gorb**. Functional anatomy of the pretarsus in whip spiders (Arachnida, Amblypygi). *Arthropod Structure & Development*, 2015, 44(6): 524-540
5. Longjian Xue, Alexander Kovalev, Anna Eichler-Volf, Martin Steinhart, **Stanislav N. Gorb**. Humidity-enhanced wet adhesion on insect-inspired fibrillar adhesive pads. *Nature Communications*, 2015, 6(6621) No. 7621: 1-9

6. Jonas O. Wolff, **Stanislav N. Gorb**. *Attachment structures and adhesive secretions in arachnids*, 2016, Berlin et al.: Springer. 184 pp
7. Daniel B. Zurek, **Stanislav N. Gorb**, Dagmar Voigt. Changes in tarsal morphology and attachment ability to rough surfaces during ontogenesis in the beetle *Gastrophysa viridula* (Coleoptera, Chrysomelidae). *Arthropod Structure & Development*, 2016: 1-8
8. Lars Heepe, Jonas O. Wolff, **Stanislav N. Gorb**. Influence of ambient humidity on the attachment ability of ladybird beetles (*Coccinella septempunctata*). *Beilstein Journal of Nanotechnology*, 2016, 7: 1322-1329
9. Alexande E. Filippov, Yoko Matsumura, Alexander Kovalev, **Stanislav N. Gorb**. Stiffness gradient of the beetle penis facilitates propulsion in the spiraled female spermathecal duct. *Scientific Reports*, 2016, 6(27608): 1-8
10. Emre Kizilkan, Jan Strueben, Anne Staubitz, **Stanislav N. Gorb**. Bioinspired photocontrollable microstructured transport device. *Science Robotics*, 2017, 2, eaak9454 (2017). DOI: 10.1126/scirobotics.aak9454