


[Search](#)

- [Ille C. Gebeshuber](#)
- [Sign Out](#)



**Advancing Nano- & Micro-
Particle Analysis**



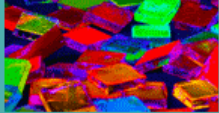
Drug Delivery
Particles



Extracellular
Vesicles




Viruses
& Vaccines



FIRST GENERAL CATALOGUE OF NANOMATERIALS

QUANTUM DOTS - HYDROPHILIC - HYDROPHOBIC




MADE IN GERMANY
PlasmaChem

Fluorescent labels and dyes
Click Chemistry reagents



Lumiprobe

- affordable price
- free technical support
- quick turnaround



Your 5% discount code:
nanopap

- [Home](#)
- [Me](#)
- [News](#)
- [Certified members](#)
- [Members](#)
- [Phys.org](#)
- [Nanoclast](#)
- [NANOacademia](#)
- [Nanosafety](#)
- [PhD&Postdoc pos., Jobs](#)
- [Research Groups](#)
- [FO-News](#)
- [Papers](#)
- [NanoEvents](#)
- [Send us](#)
- [Invite](#)
- [About us](#)

Nanopaprika.eu - The International NanoScience Community

"Spicy world of NanoScience"

nitcharacter
PhysicoChemical Analysis Services

Zeta Potential
XPS

SEM
SQUID

Chemical
Fluorescence

Composition
ICP-MS

Particle size
Particle Properties

TEM
DLS

Now Invent.TM



www.americanelements.com

- [← Back to NANOPOSTER 2013 - 3rd Virtual Nanotechnology Poster Conference](#)
- [All NANOPOSTER 2013 - 3rd Virtual Nanotechnology Poster Conference Pages](#)

P13-27 Nanotechnology of the Cow: Lessons for Biomimetics and Materials

Nanotechnology of the Cow: Lessons for Biomimetics and Materials

[Meschik T.](#)(1) and [Gebeshuber I.C.](#) (2)

(1) University of Veterinary Medicine, Vienna, Austria, (2) Vienna University of Technology, Austria & Universiti Kebangsaan Malaysia, Malaysia

I (TM) am a veterinarian specialized on livestock. I write my doctoral thesis supervised by researchers from veterinary science and physics (ICG). Purpose of my work is to combine veterinary medicine and biology with technical specialties; resulting in novel, potentially disruptive new biomimetic nanoscience-based materials with fascinating properties inspired by one of my most favorite animals, the cow.

Links: <http://www.vetmeduni.ac.at/anatomie-histologie/> , <http://www.tinyurl.com/illeted>

Our main interests are nano-, micro and macroscale structures and related functions of cow-specific tissues such as horn, horn shoe, rumen, muzzle (*Planum nasolabiale*) and udder. Teat skin from the udder is for example reported to have auxetic properties. Auxetics are materials that have a negative Poisson’s ratio: When stretched, they become thicker perpendicular to the applied force. When compressed, they become thinner perpendicular to the applied force. Screws made from auxetic material would be a revolution in assembly processes: no more need for dowels!



The work is based on literature review and includes a subsequent practical part comprising a photo documentation and preparation of the information in a language that is accessible in terms of concepts and approach for materials scientists, for subsequent implementation of the research findings in novel materials. Parallel to the science, various public outreach programs bring our research closer to the general public, presenting the cow as a “nanotechnological wonder” that can do much more than just provide milk, meat and leather. I love cows.










[Liked it!](#)
[1 member likes this](#)

[Share Twitter](#)  [Facebook](#)

 Like 0

Comment

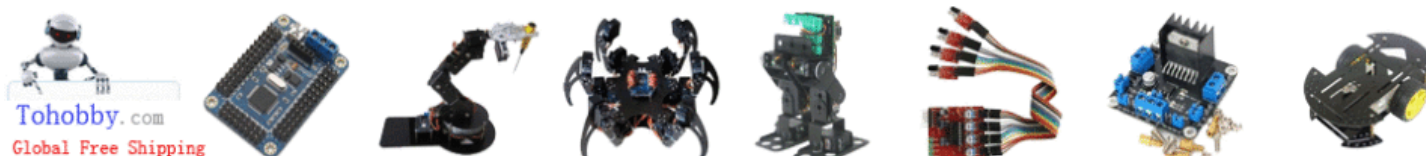
LINK    **B** */*  U    “   HTML

[Follow](#) – Email me when people comment

© 2013 Created by [Dr. András Paszternák, founder.](#)

[Badges](#) | [Report an Issue](#) | [Terms of Service](#)

[Buy motherboard](#) at www.buymotherboard.net



[Tohobby.com](#) - [Robot](#) Online Shopping with Worldwide Free Shipping



[Members Online \(2\)](#)
[Main Room](#)