

HandsOn-Website Kniffelix.de

German website that translates partially when used on devices with foreign IP addresses



Solve tricky everyday puzzles!

Topics for Beginners (Ages 8 - 99+):

<p>PIZZA yeast, enzymes, biocatalysis</p>	<p>SOIL types of soil, water retention</p>	<p>AIRPLANES center of gravity & flight behavior</p>
<p>KETCHUP flow behavior, Non-Newtonian fluids</p>	<p>HELICOPTERS 2D and 3D drawing, spatial drawing skills</p>	<p>WINGS aerodynamic drag, airflows & currents</p>

More Advanced Topics (ages 14 - 99+):

<p>AEROGELS the lightest solids in the world (funded by BMBF)</p>	<p>CHROMATOGRAPHY & HPLC basic to advanced (funded by Merck)</p>	<p>SMOOTHIE Science & Technology (DECHEMA-Initiative)</p>
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Project Partners

- Kniffelix is a product of KinderForscher at the TUHH. We are financed by project orders, cooperations, prize money, donations, sponsoring and supporters
- If you are interested in a possible cooperation or want to support the project, feel free to contact us!

Sponsors of individual topics:

Aerogels
Bundesministerium für Bildung und Forschung

Ralf-Dahrendorf-Preis
Für den Europäischen Forschungsraum
Funding-ID: 01DT22001; „Dahrendorf-Vorhaben zum EU-Projekt NanoHybrids“
See EU-Bureau Website of the BMBF

Chromatography, Chemical- & Bioengineering
MERCK

Beginner Topics
H O O U HAMBURG OPEN ONLINE UNIVERSITY

Award 2022:

STARK
SEITENSTARK-GÜTESIEGEL
DIGITALE KINDERMEDIEN

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RESEARCH FOR SOCIETY



www.kniffelix.de

FOR ALL FROM 8 - 99+ YEARS



TUHH
Hamburg University of Technology

How Research is Presented

- From everyday life to research & STEM-careers
- With experiments from everyday material
- Digitally accompanied
- Do it anywhere



Topic Structure:

- RELEVANCE**
 - How am I familiar with the topic? (Relevance to everyday life)
- KNOWLEDGE**
 - What is being researched?
 - Explanation of science
- APPLICATIONS**
 - Why are they relevant?
 - How will they change my life?
- PROFESSIONS**
 - Apprenticeships / Studies / Careers
 - Interviews with employees

For Whom? (depending on topic)

- Individuals from 8 - 99+ years old
- Pupils for at home or in school
- School classes, learning groups & clubs: Get your own everyday material or, in Hamburg, rent experiment material boxes from www.kinderforscher.de
- Students, interns, new department members or cooperation partners

Example: Pizza & Enzymes



From yeast dough to experiments:

Introductory videos & kitchen experiments



Quizzes, explanations & insight:

- Including interviews with members of the TUHH Institute for Technical Biocatalysis www.technical-biocatalysis.com
- Further quantitative high school experiments for the classroom in the menu "For educators"

New Topics 2024 & Support:

- More chemistry and bioengineering topics for high school, bachelor & master students are in the works and will be available soon.
- "Smoothie Science & Technology" is already online during its creation.
- Would you like to contribute to these or other topics? Promote topics? Feel free to contact us!

Example: Aerogels

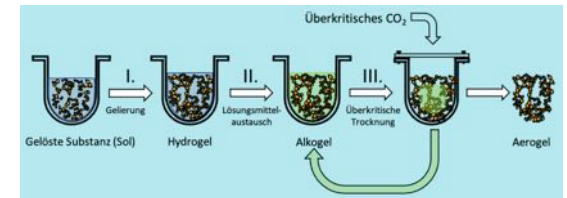


What are aerogels?

The lightest solids in the world: highly porous

Photos, quizzes & interactive videos

How are aerogels produced?



Applications, interviews & careers:



Research at the TUHH Institute of Thermal Separation Processes www.tuhh.de/v8/