July 2016

New "SimplyNano 2®" Experimental Kit for Schools

Dear Sir or Madam,

why can geckos climb up the walls and stick to ceilings, how can a chameleon change its colours and how is this related to car paints? Or why are aerogels used for building insulations? The new **"SimplyNano 2®"** experimental kit answers these questions and many more. The experimental kit contains roughly 40 new experiments in the fields of ***Nano-Bionics***, ***Nano-Products*** and ***Nanomaterials***. The **"SimplyNano 2®"** experimental kit was developed by the Innovation Society, St. Gallen on behalf of the SimplyScience Foundation and is a follow-up of the **"SimplyNano 1®"** experimental kit. The latter has already successfully been introduced in more than 1000 schools in Switzerland and Germany for teaching purposes. In 2017, the new kit will be introduced to teachers within a half-day advanced training course. The teachers obtain one experimental kit for free after the course. The costs for the implementation of the courses and the production of the experimental kits are financed by sponsors. Currently, the kit is only available in German. Please call us if you would like to support this pioneering STEM-project as a sponsor or if you would like to apply the kit in your region or school.

If you have any questions, please don't hesitate to contact us. We look forward to your feedback.

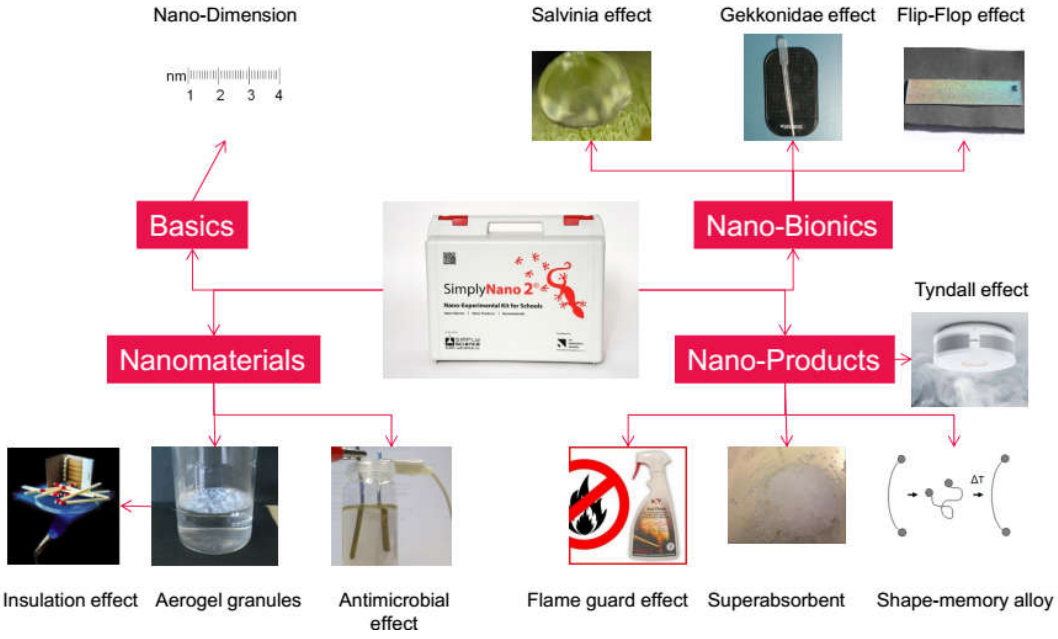
Kind regards,
Nathalie Vonrüti and Christoph Meili
The Innovation Society

P.S. New internship position „Emerging Risks / Nanotechnology" available (German):

http://innovationsgesellschaft.ch/uber-uns/jobs/praktikum-emerging-risks/

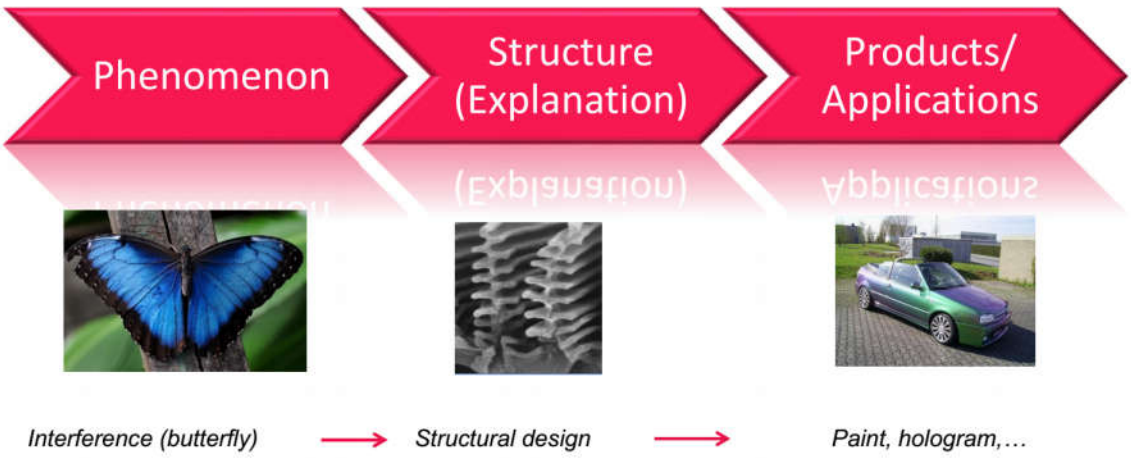
Structure und contents of the "SimplyNano 2®" experimental kit

The "SimplyNano 2®" experimental kit is a follow-up of the "SimplyNano 1®" experimental kit. It can be used independently or in combination with the first kit, as no preknowledge is necessary. The experimental kit contains roughly 40 new experiments about nanotechnology in the fields of *Nano-Bionics, Nano-Products* and *Nanomaterials*. Thereby, the goal is to observe and understand natural nano-phenomena and simultaneously to grasp their applications in everyday products.



The pupils learn why geckos can climb up the walls and stick to ceilings, how a chameleon changes its colours or why certain materials do have a memory. On the basis of nano-phenomenas, the physical and chemical basics are explained. Therefore, the experimental kit contains many products such as a flip-flop-colour-spray, a high performance aerogel insulation material and a gecko adhesive foil.

The experimental kit is targeted to learners of secondary schools but can also be used for technical colleges and gymnasiums. The entire teaching material for teachers (Power Point slides, teacher comments and sample solutions), experiment instructions for the pupils as well as all required chemicals and consumables are included in the experimental kit. During the conceptual design and the realisation of the project, the authors emphasised a high didactical quality, excellent intelligibility of the texts and attractive pictures and illustrative material. The experimental kit was developed by the Innovation Society, St. Gallen and published by the SimplyScience Foundation.



The roughly 40 simple experiments are harmless and simple to perform. They can be performed as demo or student experiments. Additionally, the consumables in the experimental kit can be easily replaced. Most products and chemicals are available in retail business or can be reordered directly from the supplier.

Support the SimplyNano project through your sponsoring – a pioneering STEM educational project.

Nanotechnology is already included in many products and applications. The handling of nanomaterials is also part of everyday life in many professions (building industry, automotive industry, chemical industry, …). On the other hand, Nanotechnology is currently not yet part of curricula despite the wide distribution and enormous economic importance. The two „SimplyNano“ experimental kits are the only teaching materials for education. Accordingly, the demand by teachers and schools is very high.

The experiments and the materials of the "SimplyNano®" experimental kits are introduced to teachers within a half-day advanced training course. The teachers obtain one experimental kit for free after the course. The costs for the implementation of the courses and the production of the experimental kits are financed by sponsors. In the past years, 60 teacher advanced training courses were held. The funding of the „SimplyNano 2“ experimental kit and the corresponding teacher training courses will be financed by the funding of

companies, foundations and private sponsorships. The production and roll-out will start in autumn 2016.

It is possible to sponsor experimental kits and courses for certain geographical areas (national, regional) or for certain schools (local). For one course a minimal set of 20 experimental kits is necessary. That's also the ideal size of a class set for schools. We are happy to inform you on compensations, which we can offer our sponsors.

With your support of the "SimplyNano2®" experimental project you are supporting an important and lasting contribution to the promotion of science and new technologies for children and youths. If you have any questions, please don't hesitate to contact us. We look forward to your feedback.
