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ASSOCIATION OF PETROCHEMICALS PRODUCERS IN EUROPE

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IYC 2011
International Year of CHEMISTRY

European Schoolnet

Attracting talented people to chemical studies

Xperimania

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10/02/2011

www.xperimania.net - www.eun.org

EUN and Science & Maths projects

SCIENTIX

Network of 31 Ministries of Education in Europe

spice

NANO YOU

xplora ECB

Xplore Health

Support schools in bringing about the best use of technology in learning

European Schoolnet

Promote the European dimension in schools and education

Xperimania FROM MOLECULES TO MATERIALS

Improve and raise the quality of education in Europe

eTwinning MST

eItems

FuturEnergia ENERGY IS OUR FUTURE

U4energy

calibrate Learning Resources for schools

melt

Inspire

ASPECT

LEARNING RESOURCE EXCHANGE FOR SCHOOLS

Xperimania
FROM MOLECULES TO MATERIALS

English GO

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- Ethical Statement

ABOUT XPERIMANIA

Have you ever wondered about the materials around you?

Project background

Attracting young talent has become a major challenge for the chemical industry

About the project

Concentrating on chemistry and physics, Xperimania aims to boost young people's interest in science, which is a priority for Europe to remain a knowledge-based economy fostering innovation. Xperimania helps students in secondary school classes (pupils aged 10-20) and their teachers to understand the wide variety of applications of chemistry, and how this fascinating science has contributed to the evolution of many day-to-day items. Participating in the following activities provides students with a unique opportunity to stimulate their scientific and analytical skills [...]

health must be a priority.

There are many types of jobs available within the field of chemistry and the availability of a qualified and skilled labour force is essential for the long-term viability and innovative capacity of the European chemical industry.

http://www.xperimania.net

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2007

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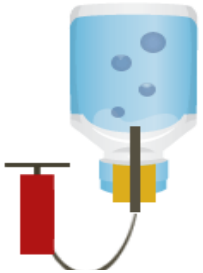
VON MOLEKÜLEN ZU MATERIALIEN



Explore a scientific discovery in the field of materials, discovered in the petrochemical sector from 1800 to the present day.

Set up an easy and fun experiment relating to petrochemistry and materials.

Xperimania 2007/08:

400+ entries

~ 1000 participants from 18 European countries

45,000 visitors to the website

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Xperimania II

FROM MOLECULES TO MATERIALS

English GO

HOME | ABOUT | NEWS CORNER | ACTIVITIES | XPERIMANIA I | CHATS |

Home » Activities » Air and cold protection

- Air and cold protection
- Lightweight
- Electrical insulation
- Energy efficiency
- Water resistance
- Combustion
- Resistance to bases
- Resistance to acids
- Rules
- Guidelines
- List of properties
- Take part!

AIR AND COLD PROTECTION

Properties of polyurethane fibres	Uses
Stretchy	- Swimsuits - Leotards - Underwear
Thermal protection	- Gloves and mittens

Experiment:

Grab ice cubes with:
- your bare hands
- woollen mittens
- kitchen gloves
- snow gloves

Leading questions:
- How long can you stand the cold in each case?
- Do your hands get wet?
- Can you explain what's happening?
- Can you set-up other easy experiments t
action?
- Can you find applications of this propert

Click "**Download**" to get the full kit. To up
ply click "**Take**

Activities:

Check out the property!

Chats:

On Petrochemistry in different languages

Students will research the chosen property, find out a way to test it and explain the results in a clear and structured way in order to enable others to understand it and to learn from the presented example.

Xperimania II
2008 - 2009

*** 13 languages**
~ 450 entries
~ 1500 students
~ 21 countries

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Xperimania III

FROM MOLECULES TO MATERIALS

HOME | ABOUT | NEWS | XPERIMANIA AMBASSADORS

Home » Home

GET READY FOR THE XPERIMANIA SCIENCE AMBASSADORS

Do you want to show your students the coolest chemistry and physics tricks and get yourself new ideas for your science classes? This year Xperimania sends science ambassadors right into the classroom to demonstrate the fun side of science - and your school can be one of their destinations!

Xperimania III - 2009/10

* 432 schools from 24 countries applied
* 7 schools selected:
  * Romania: Traian Vuia in Maramures
  * Portugal: E.B. 2,3 de Alcanede in Alcanede
  * Slovenia: Osnovna šola heroja Janeza Hribarja in Stari trg pri Ložu
  * United Kingdom: Bartley Green School, St Francis Primary School and Highters Heath Community School in Birmingham
  * Spain: IES J. Ibáñez Martín in Lorca
* 18 workshops ~ 400 students → All 432 schools!

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Moving fish

- Properties: water absorption
- Observe what happens when a small fish made of a thin piece of cellophane is placed on your palm. Why does the fish move and curl around? Why doesn't it move on the table?

The fish reacts to water, i.e. to the moisture of hands, and starts to curl around by lifting its head and tail. This happens because cellophane absorbs water.

Periodic table

- Properties: heat sensitivity
- Observe what happens when you touch the special paper with a periodic table. Why does the paper change colour and display the fingerprint? Does this happen if it is touched with a pen or a glove? Why does the fingerprint disappear after a while?

The periodic tables are made of a heat sensitive paper which reacts to the warmth of the body, or a heater, by changing colour.

Magic bracelet

- Properties: light sensitivity
- Observe what happens when a bracelet made of white beads is taken outside. Why does the bracelet change colour? Why do the beads turn white when taken back to the classroom?

The beads contain photochromatic dyes. Their molecular shape changes with exposure to ultraviolet (UV) light caught from the sun, changing the colour. The beads also change colour on a cloudy day, which proves that the clouds don't totally block the UV light.

Making snow

- Properties: water absorption
- Find out why nappies keep baby's pants dry. Observe what is inside a nappy and how it reacts to water. What is the white powder found in a nappy? What happened to the water when mixed with the powder?

Xperimania IV

FROM MOLECULES TO MATERIALS

English GO

Deutsch
English
español
français
italiano
polski

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Home » EQUALITY

- Competition 1
- Competition 2
- Rules

XPERIMANIA RETURNS WITH "EQUALITY"

Over the last 3 years Xperimania has successfully run outreach projects in secondary schools across Europe on a variety of chemistry, particularly petrochemistry, topics. Within the framework of the International Year of Chemistry - IYC - 2011, Xperimania is organising two competitions on the "role of women in chemistry".

Students are invited to participate in the competitions, which are directly linked to the theme of the IYC: *"Chemistry - our life, our future"*. The proposed activities can be integrated either into lessons (such as science, language or social sciences) or can be organised as a cross-curriculum activity involving several teachers.

The competitions are open to upper secondary school pupils aged between 14 and 21 years old. The objectives are to:

- *Raise awareness of the role of women in chemistry.*
- *Increase the interest of female students in the subject.*
- *Fight the stereotype that chemistry is a "male subject" both at*
  career choice.

The competitions will be open from 14 February until 30 September 2
being awarded in both.

Xperimania IV - 2010/11

February 14

You can download the Equality brochures from the Press material section.

Portrait of a woman chemist

To apply, students should formulate a portrait of a woman from their country who has a career in chemistry or petrochemistry.

Read more

Create a campaign on women and chemistry

To submit an entry in this category, students and teachers are required to design an awareness-raising campaign to increase the interest of female students in chemistry.

Read more

Xperimania I to IV

Xperimania I: Materials

Xperimania II: Properties

Xperimania III: Ambassadors

Xperimania IV: Equality

Languages: 23 – 13 – 6

Participation:

Countries: 18 – 21 – 24

Students: 1,000 – 1,500 – 400(*)

Visitors: 7,000 – 13,000 per month

Type of participants: **XP I** = **XP II** ≠ **XP III** ≠ **XP IV** (countries + schools)

Further information

http://www.xperimania.net

http://www.eun.org

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Dank u - Merci