

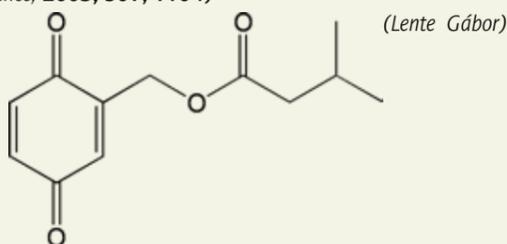
Today's programme

Students		Mentors and Scientific Observers		Guests	
07:00-09:00	Breakfast	07:00-09:00	Breakfast	08:00-09:00	Breakfast
08:40	Departure for Visegrád	08:00-12:00	Corrections	09:00-17:00	Visit to Esztergom and Visegrád
11:45-13:15	Medieval knight show	12:00-13:00	Lunch	17:00-21:30	Medieval knight show and dinner
13:30-15:00	Lunch	13:00-15:30	3rd Jury Meeting	21:30	Departure for the hotel
16:00-18:15	Visit to the Open Air Museum and folklore program in Szentendre	16:00	Departure for Visegrád		
18:15-19:00	Folk-dance experience	17:00-21:30	Medieval knight show and dinner		
19:15-21:15	Dinner	21:30	Departure for the hotel		
21:30	Departure for Gödöllő				

Molecule of the day

Gentisyl quinone isovalerate was recently shown to be the sex pheromone of the German cockroach (*Blattella germanica*). This is the most common cockroach species around the world and is often responsible for allergies and the spread of a number of different diseases. Female cockroaches emit the pheromone to attract males. The American scientists who made the discovery showed that the synthetic version of the compound has the same effect and could be an important component of future pest control agents.

(*Science*, 2005, 307, 1104)



Useful expressions

Jousting tournament

Knock out

Ouch, that must have hurt

I want to do it too

I'm with the group

Proverbs:

Fortune favours the brave

[One can do] more by wisdom

than by force

He was carved from hard wood

(He's tough)

Running is disgraceful but useful

If there is no horse, a donkey will

do as well

Lovagi torna

Kiütés

Aú, ez fájhatott

Én is akarom csinálni

A csoporttal vagyok

Bátraké a szerencse

Többet észsel, mint erővel

Kemény fából faragták

Szégény a futás, de hasznos

Ha nincs ló, jó a szamár is

Curiosity of the day

Ca. 56 metric tonnes of liquid gallium (m.p: 29°C) have been used to detect solar neutrinos (ν) in the nineties within the framework of a Russian-USA collaboration. In this experiment the scientists counted the number of Ge atoms produced in the reaction: $\nu + {}^{71}\text{Ga} \rightarrow {}^{71}\text{Ge} + e^-$. This project indeed gained remarkable attention: once armed thieves tried to steal the whole pool of ultrapure liquid gallium.

(Stirling András)

A simple riddle

What weapon can you make of chemical elements
Potassium, Nickel and Iron? (KNiFe)

(collection of J. Verhagen)

Weather

Today will not be particularly hot and you can expect some rain too.

Colophon

Catalyzer

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Catalyzer

Issue No. 8 - Friday 18 July 2008

Visegrád & Szentendre

Today we are going to take a trip to Visegrád and Szentendre. Visegrád is the smallest town in Hungary, but as you will see, a really charming one. It is located 43 km north of Budapest, on the right bank of the Danube. Its name means high fortress. The town has been populated since the New Stone Age by Celts, Germans, Romans, Avars, Hungarians, and it was the seat of the Hungarian Kings between 1325 and 1405. It gained international importance in 1335, when King Károly Róbert invited the Kings of Poland and Bohemia to Visegrád to a commercial and political conference. Since 1991 this old alliance has been working again. Its members, Hungary, Poland, the Czech Republic and Slovakia, are called the "V4" or "Visegrád Four". The Royal Palace, which we will certainly visit, is the place where the first meeting of the Visegrád Group took place. It flourished in its greatest splendour during the reign of King Mátyás at the end of the 15th century. He had the whole Palace refurbished in late Gothic style. The Italian Renaissance architectural style, which appeared in the Palace decoration, was used here for the first time outside Italy. In addition to the Palace, the medieval castle and the Citadel are now open to the public. Along the bank of the Danube we can

take enjoyable walks; the view from the Danube bend and the surrounding hills is marvelous, and the medieval knight shows are always exciting.

Another tourist attraction in this region is Szentendre, a peaceful little town, with stunningly clean air. It is famous for arts and museums and is home to the Hungarian Open Air Museum exhibiting the folklore, architectural characteristics, culture and traditions of the country. It is situated in the unique and natural surroundings of the Duna-Ipoly National Park. Walking around the museum „villages“, visitors can imbibe the atmosphere of the 19th century Hungarian countryside. The authentically furnished rooms, the pieces of furniture, household equipment and textiles, toys, churches, gravestones (in the cemetery) and mills recall the everyday lives of earlier inhabitants. In Szentendre, there are a further 14 museums and art galleries acquainting visitors with the rich historical past and life teeming with arts. The town has been the home of many generations of Hungarian artists. There are many shops and restaurants catering for visitors. Have a nice day in the Danube bend!

(Rónaszéki Nóra)





The three trials – fairy tale

Part 2

...Encouraged by their success in the second trial the brave youngsters waited impatiently to see what that mystic very hard third trial can be. The day between the two trials was spent with – besides impatient and exited waiting – playing various games. Some of the participants – namely the members group from India – still remember how vividly this day was spent. When I asked them about it one of them told me the following:

'I liked this day very much, it was wonderful to play with young men from so many nations. I remember the game I liked the most, it was archery. The other games were also really exciting, for example the memory game.'

Then I asked them if there was any game that they already knew or was especially easy for them, for which another member of the group answered what is written here:



'The game with spices was easy and it was a really good idea to get fake money if I won the game'

So in one word that day was memorable for the young men but good times do not last forever, and the day of the third trial finally arrived. The youngsters woke up with the rising sun, some of them ex-

cited, the others rather nervous. In defiance of the traffic jams and other monsters of Chemilia their carts took them to the place of the final trial. They faced the trial successfully the best received the promised goods and he lived happily ever after...just like those who did not win the competition...



Attention

We are looking for a grey wallet which was lost by a member of the Switzerland team at the theoretical exam.



The theoretical exam – a view from the exit door

I asked the students just after having left the room where they had sat for the theoretical exam exhausted and tired, to tell me about their feelings concerning the test.

Iran

Q: How are you feeling now?

A: I am so tired that I cannot feel anything...

Q: Yet can you say a few words about your feeling concerning the test?

A: It was very hard, so tough that I got a shock on seeing the problems.

Q: Were the calculations too hard?

A: No, the calculations were actually all right but there were many-many formulae that I did not know.

A: Yes, and the time was too short.

Q: How did you prepare for it?

A: We were selected a year ago already and we have been training for it since then, and now it seems that we only wasted our time.

Q: I am really sorry about it. Do you have any other comments?

A: Well we do not think that we will get a medal though we are very glad to be here.

Korea

Q: How are you feeling now?

A: I have a headache, it was so long.

Q: What were the problems about?

A: They were basically calculations and problems related to the practical exam.

Q: Did any of the problems surprise you, so was there anything unexpected in the test?

A: No, not at all.

Q: So everything went well which means you were all well-prepared, but how did you achieve this?

A: We are from the same high-school and we did experiments in the laboratory together. We had an intense training course as well.

Q: Do you have any other comments?

A: Yes, we are expecting a gold medal...

A: ...rather we hope to get it...

Did you know...

that many music historians think that the mineralogist Ignatius Born, an acquaintance of Mozart, was the model for the benevolent priest, Sarastro, in his opera *The Magic Flute*? Born was born as a subject of the Hungarian Crown and later became a key figure in the administration of the mines of the Habsburg Empire. His greatest chemical achievement was the perfection of the extraction of gold and silver by amalgamation with mercury. To present his method he organized the first international "chemistry" conference in 1768 at the Mining Academy in Selmecbánya. The participants founded an international intellectual society (with James Watt, Lavoisier and Goethe later becoming members). One of his coworkers, fellow freemason Johann Metzler, supposedly contributed not only to the amalgamation experiments, but also to the libretto of *The Magic Flute*. Metzler even played a minor role in the first performance of the opera. Later he travelled much gathering mineral specimens – he located the cryolite Na_3AlF_6 on Greenland that would later become essential in the production of aluminium. Metzler died as a professor of mineralogy in Ireland. The crystal structure of cryolite was eventually determined in 1937 by Náray-Szabó István, one of the first systematizers of X-ray structures. Náray-Szabó was a coworker of Bragg in Manchester but his career was cut short during the communist takeover in Hungary when he was imprisoned on false allegations for his stance on democratic principles.

(Magyarfalvi Gábor)

