

## Today's programme

Students		Mentors and Scientific Observers		Guests	
08:00-10:00	Breakfast	07:00-10:00	Breakfast	07:00-10:00	Breakfast
09:00-12:00	Free time	08:00-12:00	Free time	08:00-12:00	Free time
12:00-13:00	Lunch	12:00-13:00	Lunch	12:00-13:00	Lunch
13:30	Departure for ELTE University	14:00	Departure for ELTE University	14:00	Departure for ELTE University
15:00-17:00	Closing Ceremony	15:00-17:00	Closing Ceremony	15:00-17:00	Closing Ceremony
18:00-22:00	Banquet at the Railway Museum	18:00-22:00	Banquet at the Railway Museum	18:00-22:00	Banquet at the Railway Museum
22:00	Departure for Gödöllő	22:00	Departure for the hotel	22:00	Departure for the hotel

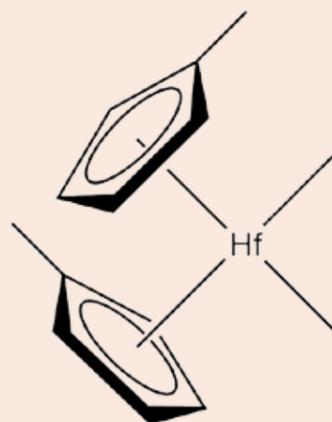
## Molecule of the day

85 years after Dirk Coster and Hevesy György, Hungarian Nobel prize winner discovered hafnium in zircon by X-ray spectroscopy, semiconductor industry also became interested in the outstanding properties of hafnium oxide. As the size of logical gates is reduced, the problem of controlling the on and off states of the channel arises because of increasing leakage current.  $\text{HfO}_2$  has a dielectric

constant about seven times greater than that of  $\text{SiO}_2$  used so far. The insulator film on the gate can be prepared with the CVD (chemical vapor decomposition) technology from volatile organometallic precursors such as tetrakis(ethylmethylamino) hafnium, or the novel, thermally more stable bis(methyl- $\eta^5$ -cyclopentadienyl) dimethylhafnium.

(Advanced Semiconductor Manufacturing Conference, 2007)

(Vass Márton)



## Useful expressions

What should I wear tonight?

It looks good on you

I got a gold/silver/bronze medal

I'm so happy

Could have gone better

Can I take a photo?

I'm starving

I want more

What's the dessert?

It was very delicious

See you soon

I don't want to go home

Mit vegyek fel ma este?

Ez jól áll neked

Arany/Ezüst/Bronz érmet kaptam

Olyan boldog vagyok

Lehetett volna jobb is

Készíthetek egy képet?

Éhes vagyok

Kérek még

Mi a desszert?

Nagyon finom volt

Viszlát

Nem akarok hazamenni

## The motto of the day

Chemistry is all about getting lucky.

(R. Curl)

## Photos and reports about the Olympiad can be found at

» <http://cenblog.org> (Linda Wang riportja)

» [www.balintgilicze.com](http://www.balintgilicze.com)

## Weather

Today the temperature will be pleasantly warm but we can also expect some rain.

## Colophon

### Catalyzer

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# Catalyzer

Issue No. 10 – Sunday 20 July 2008

## Closing Ceremony and Banquet



Finally the day of announcing the results and prizes has come and after the excitement of the closing ceremony we will have a unique place hosting the banquet, namely the Hungarian Railway Museum. The vast roundhouse will change into a sparkling ballroom for tonight and the rails give their place to the dance floor for the pleasure of those who want to shake it a bit.

The foundation-stone of the museum was laid in 1999 on the site of the former North Depot of Budapest and after many months of reconstruction, Europe's first interactive railway museum opened in July 2000, displaying over a hundred vehicles and equipment of varying ages on an area of over 70.000 m<sup>2</sup>. The 34 bays of the roundhouse built in 1911 provided an ideal home for the vintage fleet, which includes the oldest operating steam engine from 1870 and the legendary Árpád railcar from 1934, which sped from Budapest to Vienna in under three hours. The gem of the collection is

the elegant teakwood dining car built for the Orient Express in 1912. Twice a year the legendary train also pays a visit to Budapest. On top of the vintage fleet the museum features railcars, self-powered rail cars and hand-carts, inspection cars, steam cranes, snow ploughs and other curiosities. The exhibition shows the entire history of the railways from the steam engines to the powerful electric engines of today.

Many of the trains are parked outside the roundhouse in a beautifully landscaped green area, where there is also a chance to try the old machines out: visitors can drive a steam engine, travel in a car converted for rails, operate a hand-cart, ride on the turntable and on the horse tram. The simulator offers a virtual experience of driving the most powerful Hungarian electric railway engine, using the original equipment, while the rail-cycle challenges one's sense of balance. From April to October, a vintage diesel shuttle train runs between Budapest's Nyugati Station and the museum.

(Vass Márton)





## The program of the Closing Ceremony:



» Performance of Four Fathers Quartet

» Film: Maestro

» Speech of Jung-Il Jin, President of IUPAC

» Performance of Four Fathers Quartet

» Speech by Greiner István, vice-president of the Hungarian Chemical Society and Deputy Director for Research of Richter Gedeon Plc.

» Accordion and brass winds duet by the Szabó Csaba and Ernyei László

» Evaluation of the results

» Performance of the Four Father quartet

» Distribution of awards and special prizes

» Speech of Kotschy András, President of the Organizing Committee of the 40<sup>th</sup> IChO

» Handing over the IChO Flag and speech by Peter Wothers

The Four Fathers Quartet was founded in 1995. They sing “a capella”, which means that they perform without the accompaniment of musical instruments. For years they have been

singing in the **Honvéd Male Choir**, two of them are members of this ensemble even today. In 2002 the two other members transferred to the **National Choir**, where they still work. The repertoire consists of their favourites: the American music of the 1920s and 30s, the so called **Barbershop Style**, the adaptations of evergreens, Hungarian hits and spirituals.

The Szabó-Ernyei duo is a peculiar formation with the unusual combination of brass winds and accordion borrowing a unique sounding to their music. The two musicians could match a whole ensemble with their virtuosity. They mostly play Baroque works with their special scoring, often appearing at scientific or innovation events, maybe because their music is strongly innovative on classical bases.

## Interviews – the Olympiad from the participants' point of view

The Olympiad is over, the only thing that remains from the program is the Closing Ceremony where the awards will be given out. Certainly this week will be memorable for all of you, but I am also sure that you have been moved by different things. I asked some of the groups about their opinion on the 40<sup>th</sup> IChO:

### Japan

*Q: First of all I would like to know how you feel about the Olympiad as a competition?*

A: It was difficult still it was a very interesting competition. I enjoyed it very much.

*Q: What result do you think you have achieved?*

A: Well I would be really happy with a silver medal, though I suppose I am going to get a bronze medal.

*Q: Now to talk about the free time activities, I am curious about which program was your favorite?*

A: The trips were nice, but I preferred day spent in the park playing games.

A: ...and football, it was great.

*Q: Last week you had the opportunity to taste traditional Hungarian food. What is your opinion about it?*

A: I liked Hungarian food, but the rice with yoghurt [milk-rice (the editor)] was strange for me, really, but I liked it.

*Q: Do you have anything else to share with your companions?*

A: I was surprised that most students were very fluent in English, my English also improved, and it was good to be together with people with so many nations.

### Ukraine

*Q: First of all I would like to know how you feel about this Olympiad as a whole?*

A: It was very good to be here. The rooms were nice, the whole hotel was beautiful, the meals were tasty, really, I liked it very much.

*Q: What about the competition? What result do you think you have achieved?*

A: I feel that the exams were good and not too difficult. The theoretical test was a little bit harder for me.

*Q: Do you think that you will be awarded with a medal?*

A: I hope so.

*Q: Now to talk about the free time activities, I am curious about which program was your favorite?*

A: I liked everything, all the trips were wonderful and exciting.

*Q: How did you like, for instance, the tournament yesterday?*

A: It was amazing I have never seen such a show before.

*Q: Last week you had the opportunity to taste traditional Hungarian food. What is your opinion about it?*

A: Everything was tasty, I liked it very much.

*Q: Do you have anything else to share with your companions?*

A: It was very nice to be here in Hungary and I will never forget this Olympiad.



## Did you know...

that Furka Árpád and his colleagues at Eötvös Loránd University developed a new synthetic method that revolutionized pharmaceutical research and drug discovery and led to the foundation of a new branch of science called combinatorial chemistry? Furka Árpád graduated first as a chemistry teacher then as a chemist from the University of Szeged and became a professor at Eötvös Loránd University. His “split-mix synthesis” strategy, conceived in 1982 and published in 1988, made it possible to prepare more compounds in a week than have been made in the previous history of chemistry. The possibility to prepare an almost unlimited number of compounds captured the imagination of pharmaceutical scientists all over the world. This idea has changed the way how new chemical libraries (collection of compounds) are designed and prepared for subsequent biological activity or functional assays. The method was originally developed for the synthesis of peptide libraries based on the solid-phase synthetic strategy introduced by Prof. Bruce Merrifield at the Rockefeller University.

Subsequently it was adapted for the preparation of all other classes of compounds. Later on he developed the string synthesis procedure at the Advanced ChemTech Inc. (Louisville, KY, USA), which is one of the most efficient methods for preparing discrete compounds in several milligram quantities. The achievements of Prof. Furka have been highlighted by the Széchenyi Prize in 2002. He was the first Honorary President of the freshly formed European Society of Combinatorial Sciences and the chairman of the Eurocombi-1 (Budapest 2001), the first symposium of this society. Combinatorial thinking and the combinatorial methods combined with high-throughput biological screening became so powerful that its use is gradually expanding to fields outside pharmaceutical research like catalysis research, material sciences and evolutionary biology.

(Dibó Gábor)