DAY 4: Wednesday, 24 July





Palais de la Découverte



38°C

Lycée Pierre Gilles de Gennes



making



During the French Revolution, at the instigation of Father Gregoire, the creation of the "Conservatoire des arts et métiers" was voted in 1794 to transmit the knowledge and technical know-how, bringing together new tools and machines. Among other things, it contains a large part of the instruments confiscated from Lavoisier in 1794.

Lavoisier's contribution to the evolution of the scientific instrument is considerable. His laboratory shows us some aspects of it: meteorologist, geologist, chemist and physiologist, he has exercised everywhere the same modern spirit of rigor in the method and precision in the measurements.

Between 1785 and 1787, he built two large gasometers to carry out the water synthesis experiment. With a high precision, he weighted the two gases - dihydrogen and dioxygen - which he then introduced into a flask to recompose (thanks to an electric spark), thus obtaining few grams of water and demonstrating the law of mass conservation.

The inventory also included pneumatic machines, a calorimeter, a pneumatic pump, two electric pistols, but also 20 thermometers, 37 hydrometers, 20 scales, a dozen barometers and many other instruments: in total, 13,000 chemical apparatus and 250 physical instruments!

VWR, essential to practical tasks!

VWR International is a company acquired by Avantor® in 2017 and involved in the distribution of research laboratory products, with over 1,200,000 proposed to their 250,000 customers. Their deep customer relationship strengthens Avantor®'s abilities, adding a vital new dimension to the scope of solutions provided - from discovery to delivery.

VWR is one of the main partners of the 51st IChO and provided most of the chemicals and labware used in the practical task: nothing would have been possible without their support!



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Wednesday, 24 July 2019



catalyzer

Back in time at the Château de Versailles!



Yesterday, students enjoyed the sunny day to visit the Château de Versailles, official residence of French Kings, and its gardens.



The "Musée des arts et métiers"



Conservatoire national des arts et métiers (National Conservatory of Arts and Trades) was then "a store of new and useful inventions", and is now a museum of technological innovation. The Musée des arts et métiers (museum of Arts and Trades) exhibits over 2,400 inventions, split into seven collections: Scientific instruments, Materials, Energy, Mechanics, Construction, Communication and Transport. It is furthermore housed in a beautiful priory, the priory of Saint-Martin-des-Champs.

You can find for example old bikes, the ancestors of planes, but also a Foucault

Founded in 1794 by Henri Grégoire, the pendulum, the first cameras, the first computers... and Lavoisier's lab!

> The students of four art schools in Paris took part in the "Lavoisier challenge" (another event of the "The Year of Chemistry" in France). They had to design an art object based on Lavoisier's lab in challenge had their objects reproduced... and you all have one of them in your welcome bag!Mentors, your IChO badge gives you free access to this museum: don't hesitate to enjoy it between Tuesday, 23 July and Sunday, 28 July!

Second time hosting IChO exams...



The National School of Physical Chemistry and Biology – Pierre-Gilles de Gennes High School, is a state school founded in the 1950s that trains laboratory technicians in different scientific fields. The current building situated at the heart of the 13th district of Paris was erected at the beginning of the 1970s and provides a spectacular view of the city.

The school welcomes 2000 students divided into two sections: one half at high school level and the other half for post-graduate studies with European sections and established partnerships with a number of universities.

The building is home to a scientific equipment complex unique in France, and houses equipment for engineering science, biology and chemistry (GC, HPLC, NMR, GC-MS) as well as semi-industrial equipment (distillation and 10 m high extraction columns, 30 L to 50 L reactors).

The school is also linked to the history of IChO: it hosts the 51st IChO exams, after hosting the 22nd IChO exams in 1990 – you can still admire the stained glass made for the occasion in the entrance hall.

1. Hydrogen

Discovery: 1766 by H. Cavendish (London UK) Period: 1st

A few of its properties

Only one electron and one proton, and still so important! The most abundant element in the universe (92% in number of atoms), the first one formed after the Big Bang, the main constituent of stars, it also combines with most of the other elements and is used in numerous processes, such as Haber-Bosch process for ammonia synthesis. As fuel for rockets and hydrogen cars, and reactant in the Fischer-Tropsch process to produce hydrocarbons fuels from a mixture of carbon monoxide (CO) and dihydrogen (H₂), H is also a source of energy.

1.00794

HYDROGEN

Game of the day

A record city in the periodic table

Today, we propose a quiz. Do you know which city is represented 4 times in the table thanks to its name?

Answer - Game of Tuesday, 23 July

1) Spanish = Lili used to drink Barrilitos, every evening, or cold Nescafé 2) German = Dear Betty please don't come without fresh clove pink 3) French = Lily was hard digging at our uncle François Nestor's [adapted from JCE 2007, 84, p.1918 and JCE 2008, 85, p.1489]



Teams, always accompanied by their mascots.



Vocabulary

Réussir

Mettre les

bouchées doubles



To succeed

Literally: To put double bites

Meaning: Put the extra effort

Visiting the Château de Versailles!





Students had the chance to discover the outstanding Hall of Mirrors!



Meanwhile and following the first Jury Meeting, mento worked all day on the experimental exam trai

