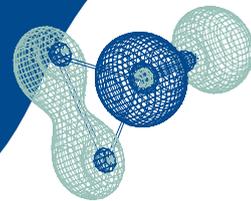


# Catalyzer

ISSUE 10 SUNDAY 26 JULY 2009



JOURNAL OF THE 41<sup>ST</sup> INTERNATIONAL CHEMISTRY OLYMPIAD, CAMBRIDGE

## Final Issue: **Results**

Congratulations to all those who took part in this year's Olympiad. Well done to everyone who received a metal.



# Gold

Ruibo	Wang	<i>China</i>
Assaf	Mauda	<i>Israel</i>
Hung-I	Yang	<i>Taiwan</i>
Vlad	Puscasu	<i>Romania</i>
Jihoon	Kim	<i>Korea</i>
Naoya	Ozawa	<i>Japan</i>
Baptiste	Haddou	<i>France</i>
Oleg	Salnikov	<i>Russia</i>
Yang-Ting	Chen	<i>Taiwan</i>
Do	Kim	<i>Korea</i>
Ji	Liu	<i>China</i>
DaoBo	Wang	<i>Singapore</i>
Robert	Pollice	<i>Austria</i>
Chih-Cheng	Yeh	<i>Taiwan</i>
Taavi	Pungas	<i>Estonia</i>
Kenichi	Endo	<i>Japan</i>
Hsu-Hang	Yeh	<i>Taiwan</i>
Ri	Oh	<i>Korea</i>
Aria	Samiei	<i>Iran</i>
Daniil	Khokhlov	<i>Russia</i>
Xinchen	Huang	<i>China</i>
Bahdan	Ranishenka	<i>Belarus</i>
Ivan	Chernyshov	<i>Russia</i>
Chau	Vu	<i>Vietnam</i>
Yixiao	Wang	<i>U.S.A.</i>
Julia	Batki	<i>Hungary</i>
Zhi Hao	Gani	<i>Singapore</i>
Martin	Strebl	<i>Germany</i>

# Silver

Dominik	Stefanko	<i>Slovakia</i>
Bill	Huang	<i>Australia</i>
Dávid	Katona	<i>Hungary</i>
Wenchi	Liu	<i>China</i>
Abhishek	Padmanabhan	<i>India</i>
Nathan	Benjamin	<i>U.S.A.</i>
Ondřej	Henrych	<i>Czech Republic</i>
Ali	Mashreghi	<i>Iran</i>
Brian	Seifried	<i>U.S.A.</i>
Marcin	Warminski	<i>Poland</i>
Florian	Berger	<i>Germany</i>
Abdurrahman	Turksoy	<i>Turkey</i>
Alberto	Lena	<i>Italy</i>
Robert	Owen	<i>United Kingdom</i>
Yuqun	Lin	<i>Singapore</i>
Alif	Noikham	<i>Thailand</i>
Atsuhiko	Nakajo	<i>Japan</i>
Egle	Maksimaviciute	<i>Lithuania</i>
Soma	Zsoter	<i>Hungary</i>
Pinnaree	Tea-mangkornpan	<i>Thailand</i>
Constantin	Giurgiu	<i>Romania</i>
Ian	Houlsby	<i>United Kingdom</i>
Shruti	Khatri	<i>India</i>
Gleb	Široki	<i>Estonia</i>
Igor	Novozhilov	<i>Russia</i>
Peter	Bullock	<i>United Kingdom</i>
Marcin	Malinowski	<i>Poland</i>
Maciej	Sienkiewicz	<i>Poland</i>
Xiao	Xiao	<i>Singapore</i>
Bogdan	Ardan	<i>Ukraine</i>
Colin	Lu	<i>U.S.A.</i>
Matthias	Schmid	<i>Germany</i>
Amanmyrat	Abdullayev	<i>Turkmenistan</i>
Anh	Le	<i>Vietnam</i>
Mathieu	Dartailh	<i>France</i>
Iman	Abbaspour	<i>Iran</i>
Fangzhi	Jia	<i>Australia</i>
Pacharapon	Sinchairojkul	<i>Thailand</i>
Asparouh	Lilov	<i>Canada</i>
Huseyin	Erguven	<i>Turkey</i>
Oliver	Funabazama-Barcenás	<i>Mexico</i>
Yair	Litman	<i>Argentina</i>
Levindo	García Quarto	<i>Brazil</i>
Joel	Lawson	<i>New Zealand</i>
Sasilada	Sirirungruang	<i>Thailand</i>
Ignas	Anikevicius	<i>Lithuania</i>
Charlie	McTernan	<i>United Kingdom</i>
Vinayak	Gagrani	<i>India</i>
Petra	Vizjak	<i>Croatia</i>
Manikanta	Kotaru	<i>India</i>
Quang	Lu Nguyen	<i>Vietnam</i>
Romans	Čaplinskis	<i>Latvia</i>
Jason	Kong	<i>Australia</i>
Ivana	Polim	<i>Indonesia</i>

# Bronze

Dzmitry	Shakhno	<i>Belarus</i>
Yeong Seok	Cha	<i>Korea</i>
Christoph	Krumpeck	<i>Austria</i>
Andriy	Neshchadin	<i>Ukraine</i>
Ladislav	Hovan	<i>Slovakia</i>
Kelvin	Cheung	<i>Australia</i>
Melih	Baci	<i>Turkey</i>
Konstantin	Krautgasser	<i>Austria</i>
Simon	Luca	<i>Romania</i>
Johannes	Hellwagner	<i>Austria</i>
Bening	Muhammad	<i>Indonesia</i>
Adhitya	Moeljadi	<i>Indonesia</i>
Liudmila	Budanitskaya	<i>Belarus</i>
Artur	Stachowiak	<i>Poland</i>
Mohammad Hadi	Khakrand	<i>Iran</i>
Luca	Zucchini	<i>Italy</i>
Iryna	Barodzich	<i>Belarus</i>
Zhalgas	Serimbetov	<i>Kazakhstan</i>
Andriy	Bolbat	<i>Ukraine</i>
Aya	Eizawa	<i>Japan</i>
Petr	Motloch	<i>Czech Republic</i>
Dimas	Abdillah Fikri	<i>Indonesia</i>
Mehman	Bunyatov	<i>Azerbaijan</i>
Jan	Orkisz	<i>France</i>
Tamás	Vörös	<i>Hungary</i>
Eric	Coomes	<i>Canada</i>
Yorck	Mohr	<i>Germany</i>
Brian	Salvati	<i>Argentina</i>
Furkat	Mukhtarov	<i>Kazakhstan</i>
Tudor	Balan	<i>Romania</i>
Algirdas	Neniskis	<i>Lithuania</i>
Nicolas	López Abdala	<i>Argentina</i>
Connie	Zhao	<i>Canada</i>
Nazar	Mammedov	<i>Turkmenistan</i>
Leif	Schelin	<i>Sweden</i>
Tobias	Iveland	<i>Norway</i>
Dilmurat	Moldobaev	<i>Kyrgyzstan</i>
Filip	Vranješević	<i>Croatia</i>
Pavel	Švec	<i>Czech Republic</i>
Alberto	Branchi	<i>Italy</i>
Daniel	Quill	<i>Ireland</i>
Eduardo	Romero-Montalvo	<i>Mexico</i>
Jarkko	Järvelä	<i>Finland</i>
Arthur	Reis	<i>Brazil</i>
Olli	Lainiala	<i>Finland</i>
Wepa	Roziyev	<i>Turkmenistan</i>
Hsiao-Chen	Jan	<i>New Zealand</i>
Allan	Thor	<i>Denmark</i>
Igor	Marković	<i>Croatia</i>
Hiram	Borbolla Hernández	<i>Cuba</i>
Jared	Lewis	<i>New Zealand</i>
Ilya	Skripin	<i>Kazakhstan</i>
Pavol	Ondrisek	<i>Slovakia</i>
Alexander Kristian	Grevsen	<i>Denmark</i>

Oleg	Vybornyy	<i>Ukraine</i>
Toghru	Almammadov	<i>Azerbaijan</i>
Evitar	Degani	<i>Israel</i>
Gabriel	Hernández-Fernández	<i>Mexico</i>
Alexander	Blokhuis	<i>Netherlands</i>
Christos	Anastassiades	<i>Cyprus</i>
Hyun-Sun	Roh	<i>New Zealand</i>
Mikael	Twengström	<i>Sweden</i>
Vladimiras	Oleinikovas	<i>Lithuania</i>
Ondřej	Hák	<i>Czech Republic</i>
Jose	Montero Bastidas	<i>Peru</i>
Agil	Azimzada	<i>Azerbaijan</i>
Saman	Zia	<i>Pakistan</i>
Valeriu	Scutelnic	<i>Moldova</i>
Robinzon	Ramos-Madrigal	<i>Mexico</i>
Huong	Le	<i>Vietnam</i>
Gankhulug	Gansukh	<i>Mongolia</i>
Uyanga	Dagvadorj	<i>Mongolia</i>
Jeremy	Witmer	<i>Canada</i>
Martin	Martinov	<i>Bulgaria</i>
João Victor	Magalhães Caminha	<i>Brazil</i>
Tim	Evers	<i>Netherlands</i>
Kadi Liis	Saar	<i>Estonia</i>
Gareth	Gamble	<i>Ireland</i>
David	Rodríguez San Miguel	<i>Spain</i>
Ernesto	Aguilar Infante	<i>Cuba</i>
Aigerim	Shamshidin	<i>Kazakhstan</i>
Nayha	Enver	<i>Pakistan</i>

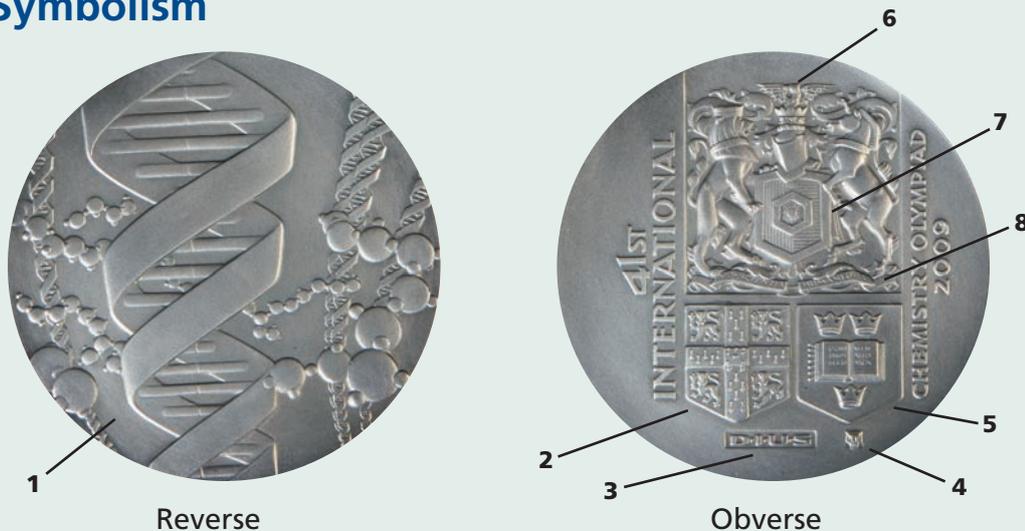
## Honourable Mention

Luka	Andrejčič	<i>Slovenia</i>
Tino	Canziani	<i>Switzerland</i>
Thibaut	Grouy	<i>Belgium</i>
Yngve	Guttormsen	<i>Norway</i>
Matin	Huseynli	<i>Azerbaijan</i>
Christian	Jensen	<i>Denmark</i>
Maksim	Mišin	<i>Estonia</i>
Jernej	Repas	<i>Slovenia</i>
Luca	Schneller-Pavelescu Apetrei	<i>Spain</i>

**41<sup>st</sup>**  
**International**  
**Chemistry**  
**Olympiad**  
**UK, July 2009**

# The Medals

## Symbolism



1. The reverse depicts a stylised DNA molecule with a chain of hydrogen-bonded water molecules. It was designed by Philip Nathan, a specialist coin and medal designer.
2. The shield of the University of Cambridge.
3. Logo of the Department of Industry, Universities and Skills (DIUS).
4. The Leopard's Head hallmark of the Goldsmiths' Company (see article in Issue 8).
5. The shield of the University of Oxford.
6. The coat of arms of the Royal Society of Chemistry.
7. The shield of the Royal Society of Chemistry. The central symbol represents the sun surrounded by symbols for the ancient planets on a benzene ring, representing the seven metals known to the early alchemists.
8. The Latin motto of the Royal Society of Chemistry *Pro scientia et humanitate*. An agreeable and almost literal translation is *for the sake of knowledge and for the benefit of mankind*.

## The Element Song

As requested by many of this year's Olympians, here are the words to 'The Element Song' by Tom Lehrer.

There's antimony, arsenic, aluminum, selenium,  
And hydrogen and oxygen and nitrogen and rhenium,  
And nickel, neodymium, neptunium, germanium,  
And iron, americium, ruthenium, uranium,  
Europium, zirconium, lutetium, vanadium,  
And lanthanum and osmium and astatine and radium,  
And gold and protactinium and indium and gallium,  
And iodine and thorium and thulium and thallium.

There's yttrium, ytterbium, actinium, rubidium,  
And boron, gadolinium, niobium, iridium,  
And strontium and silicon and silver and samarium,  
And bismuth, bromine, lithium, beryllium, and barium.  
There's holmium and helium and hafnium and erbium,  
And phosphorus and francium and fluorine and terbium,  
And manganese and mercury, molybdenum,  
magnesium,

Dysprosium and scandium and cerium and cesium.  
And lead, praseodymium, and platinum, plutonium,  
Palladium, promethium, potassium, polonium,  
And tantalum, technetium, titanium, tellurium,  
And cadmium and calcium and chromium and curium.

There's sulfur, californium, and fermium, berkelium,  
And also mendelevium, einsteinium, nobelium,  
And argon, krypton, neon, radon, xenon, zinc, and  
rhodium,  
And chlorine, carbon, cobalt, copper, ungsten, tin, and  
sodium.

These are the only ones of which the news has come to  
Havard,  
And there may be many others, but they haven't been  
discavard.

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Skills

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