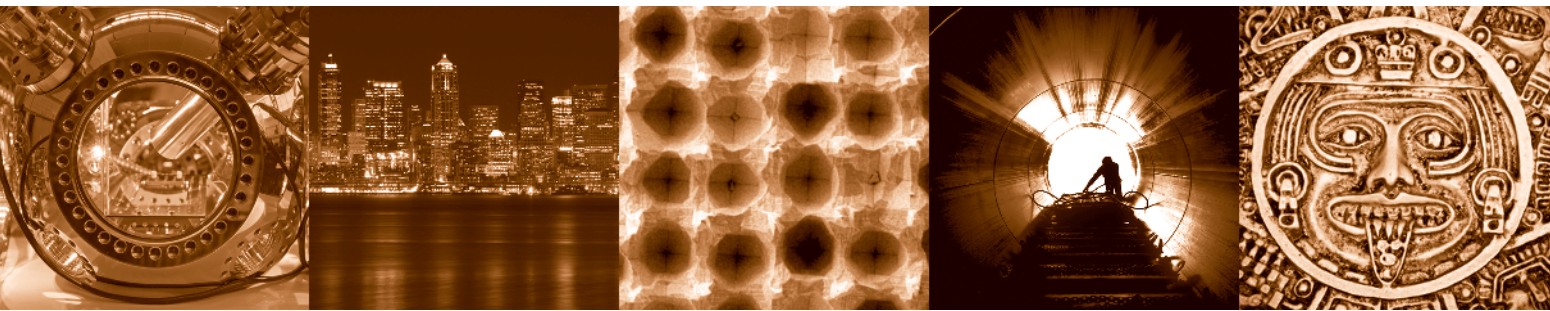




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It was said...



ADA E. YONATH

The Nobel Prize Laureate in Chemistry 2009

"Indeed, words originating from the verb "to die" were frequently used when I described my initial plans to determine the ribosome structure. Many distinguished scientists said: 'why work on ribosomes, they are dead ... we know all what can be known about them', or: 'this is a dead end road', or: 'you will be dead before you get there'. To my satisfaction, these predictions were proven wrong, the ribosomes are alive and kicking (so am I) and their high resolution structures stimulated more advanced studies as well as the imagination of many youngsters, including my granddaughter, Noa, who is showing continuous interest, and invited me at the ages of 5 and 13 to explain to her classes what the ribosome is. Also, there is a new saying in Israel: "Curly hair (like mine) means rosh male ribosomin, which translates to: head full of ribosomes"."

From the speech at the Nobel Banquet on 10th December 2009 in Stockholm, Sweden

Editorial

The 18th International Scientific Conference on Achievements in Mechanical and Materials Engineering AMME'2010 will take place in the Conference Rooms of the Mercure Kasprowy Hotel in Zakopane in the period of 13th-16th June 2010. This conference will be as usual a regular encounter of scientists coming from various areas of materials and mechanical engineering to facilitate an exchange of ideas between researchers from all over the world. It gives also the opportunity to present results of efforts of the young PhD students, who make their first steps in the scientific society. To make these meetings even more fruitful, many accompanying events give the opportunity to meet participants of various scientific projects and networks. The event's participants feature an excellent forum to witness awarding those contributors, who have the greatest merits to the development of the activities exerted, in this field. The AMME'2010 Conference will have a character of 4-day adult training and serves to accomplish knowledge and raise professional qualifications for its delegates including the level of professional knowledge and abilities of making current engineering and research works mainly in the field of the newest technological achievements, methodology of scientific researches and engineering calculations, the newest trends in the field of education and distance. The trainings includes the following main issues: engineering materials, materials properties and methodology of research, analysis and modelling of materials structure and properties, materials manufacturing and processing: cleaner production, industrial management and organisation education, distance learning and research trends.

The International Scientific Conferences on Achievements in Mechanical and Materials Engineering AMME and the next General Assemblies of the World Academy of Materials and Manufacturing Engineering took place in many important places in Poland. Those places became close to WAMME fellows and its sympathisers of whom a few thousands participated in those events, from ca. 50 countries from all world continents. A special role for the WAMME Academy plays Zakopane, a winter capital of Poland, also very beautiful in summer time. The WAMME Academy was established here and the meetings of the General Assembly of the WAMME Academy and AMME and CAM'S have taken place here already for several times. Those conferences took place in Cracow, a city having a special meaning for world culture, including on the Wawel Hill, in the former seat of the Polish Kings and in the Collegium Novum of the Jagiellonian University, the oldest Polish academic university. The important meaning for the WAMME Academy has also Wisla – a pearl of the Silesian Beskidias and Rydzyna with its castle of the King Stanislaw Leszczyński. One of venues of the AMME conferences was once Sopot with the oldest pier at the Baltic Sea and a historical Grand Hotel and historical Gdańsk at the beautiful Polish seaside with its City Hall in the Old Town, the conference rooms of the very modern Mercure Hevelius Hotel and the Great Hall of Artus Court in Gdańsk. Surely Gliwice – with a seat of the WAMME Academy and the Silesian University of Technology which has taken it under its roof, giving the seat, is an important venue for the WAMME Academy, and also a venue of many conferences of the AMME and CAM'S series.

The Opening Ceremony of the 18th International Scientific Conferences on Achievements in Mechanical and Materials Engineering AMME'2010, which will take place as usual in one of the important and also this time unusual historical interiors having a great historical importance and the material development of Poland will be as usual a special event. This time it was decided that it will be the Warszawa and Haluszcza Chambers of the Wieliczka Salt Mine in Wieliczka close to Cracow. The Wieliczka Salt Mine is one of the most valuable cultural monuments in Poland, which is visited each year by more than a million tourists from all over the world. It is also a historical monument of the world class and as such is inscribed in UNESCO's First World List of Cultural and Natural Heritage. Today, the Wieliczka Salt Mine represents both many centuries of tradition and the modernity, centuries of history and an underground city with an extensive infrastructure. The Mine is the heritage of the work of several dozen generations of the Miners, and a monument of the history of Poland and the Polish nation – a brand that has been created in the Polish collective consciousness over centuries. The Mine trade mark is among the oldest in the world. It is also the oldest Polish brand: it was the Wieliczka Salt Mine that started to mark the manufactured product (salt) with a trademark. This mark was placed on the whitest salt from the purest deposits destined for the royal table, and packed in barrels marked with the Royal Eagle. The Wieliczka Salt Mine to this day uses the ancient coat of arms, which testifies to the long tradition of the enterprise and is a symbol of trust, reliability and quality. In 2002, the Minister of Economy and the Polish Chamber of Commerce granted the Wieliczka Salt Mine the status of Brand Name Academy Founder, thus emphasising the company's contribution to the development of Poland's economy. The merit also confirms the company's fine reputation and its recognition as a brand name. The brand awareness inspires us not only to work on preserving the venue for future generations, but also to continue to ensure high quality of the services provided. Thanks to continuous work on improving products of a salt mine and enhancing the quality of services, the Wieliczka Salt Mine maintains and develops the strong and reliable brand, rooted both in history and in everyday activities. The sightseeing of the historic Salt Mines by the Conference Delegates is also foreseen.

During the Opening Ceremony of the 18th International Scientific Conferences on Achievements in Mechanical and Materials Engineering AMME'2010 the wonderful music of the outstanding Polish romantic composer Frederic Chopin played again already traditionally after the series of very successful concerts in many countries among others in Italy, the Netherlands, Germany, Norway, Moldova, Jordan which took place this year, by the famous Polish pianist of the young generation Wojciech Waleczek from Silesia will sound there, accompanied by the string quintet – Multicamerata including: Izabela Bogusz – violin, Grzegorz Bogusz – violin, Michał Rak – viola, Karol Wroniszewski – cello and Henryk Giza – double bass, an artistic director. The programme of the concert includes Piano Concerto No 1 in E minor, op. 11 (a version for piano with string quintet) including I. Allegro maestoso, II. Romanze: Larghetto, III. Rondo. Vivace. The concert of the beautiful Chopin's music, taking into consideration that 2010 was announced the Chopin Year on the occasion of the bicentennial anniversary of the birth of this greatest Polish composer, the successor of Wolfgang Amadeus Mozart. Frederic Chopin's contribution to the development of world music of romanticism is invaluable, he inspired Robert Schumann and Franz Liszt, and still remains an inspiration for the multitude of many musicians in many countries around the world. His works are timeless. Importance of Chopin's works goes beyond art. He became a legend, his art is close to the hearts of many generations. The Chopin Year 2010 is a great opportunity to promote Polish culture and art, in which mainstream there is a concert in Wieliczka in the framework of AMME'2010 Conference. It can promote the heritage of Poles because the music of Frederic Chopin and the literary outwork of Adam Mickiewicz and Juliusz Slowacki and painting one of Jan Matejko became an anchor of national identity, inspiration to throw away the fetters of bondage when for 123 years, from the end of 18th century to the 1920s Poland was deprived of statehood and independence. The concert is dedicated mostly to foreign delegates of AMME'2010 Conference.

A very important accompanying events of the 18th International Scientific Conferences on Achievements in Mechanical and Materials Engineering AMME'2010 will be the General Assembly of the World Academy of Materials and Manufacturing Engineering, the Annual Meeting of the Metallic Materials Section of the Materials Science Committee of the Polish Academy of Sciences. During the Conference 3rd Workshop on "The foresight of surface properties formation leading technologies of engineering materials and biomaterials" FORSURF on current development state of surface engineering technologies against a background of macro- and microenvironment conditioning the subject matter of the first research iteration of Delphi method carried out within the framework of the FORSURF project in two panels: Panel 05 Manufacturing – The process approach and Panel 06 Products – The customer approach. The 2nd Materials, Computer Science and Nanotechnological Conference KOMIN'2010 will take also place in the framework of INFONANO Project on "Opening and development of BSc and PhD studies in the field of nanotechnology and materials science". Both projects are coordinated by the Institute of Engineering Materials and Biomaterials of the Silesian University of Technology and financed by the European Union in the framework of Operational Programmes respectively from Innovative Economy and Human Capital. Also the Day of Dentistry Engineering in the framework of the Session of Students' Scientific Circles SO-KOŁ, will take place in Gliwice, Poland in the period preceding the main event.

To the traditions of conferences of series on Achievements in Mechanical and Materials Engineering AMME, the yearly handing of honorary awards of the Prof. Fryderyk Staub Golden Owl for achievements in promoting the Polish science and higher education on the international arena and achievements in collaboration with the Polish scientific community of materials and manufacturing engineering to eminent scientists nominated by the Chapter belong. For a quarter of a century, beginning with the creation of the Silesian University of Technology on 24th May 1945, almost exactly 65 years ago, inheriting the traditions of the pre-war Lvov University of Technology in Lvov (now in Ukraine), Prof. Fryderyk Staub Dr h.c. directed the Department of Materials Science of the Silesian University of Technology which traditions took successively created institutes: ca. 36 years ago of Materials



Science, and 13 years ago – of Engineering Materials and Biomaterials, one of the main AMME'2010 Conference Organisers.

So far the very prestigious awards have been achieved by outstanding scientists from many countries of the world in the following order: Prof. M.H. Van de Voorde – Belgium, Prof. F.W. Travis – the United Kingdom, Prof. J.M. Torralba Castello – Spain, Prof. M.H. Robert – Brazil, Prof. B.I. Tomov – Bulgaria, Prof. M.S.J. Hashmi – Ireland, Prof. Y. Katz – Israel, Prof. M. Zitransky – Slovakia, Prof. J. Kopač – Slovenia, Prof. B. Smoljan – Croatia, Prof. B. Levenfeld – Spain, Prof. M. Rosso – Italy, Prof. J. Koutsky – Czech Republic, Prof. Y.T. Im – South Korea, Prof. P. Siffert – France, late Prof. Y. Rudavsky – Ukraine, Prof. J. Sokolowski – Canada, Prof. S. Fassios – Greece, Prof. T. Haga – Japan, Prof. G.M. Drapak – Ukraine, Prof. M.J. Tan – Singapore, Prof. P.K.D.V. Yarlagadda – Australia, Prof. H. H. Cheng – Taiwan, Prof. Franc Cus – Slovenia, Prof. Gilmar Batalha – Brazil, Prof. Emin Bayraktar – France and Prof. Stanislav Rusz – Czech Republic. Many of them cooperate constantly also this year in the AMME'2010 Conference.

I have a great honour to announce that honorary awards of the Prof. Fryderyk Staub Golden Owl for achievements in promoting the Polish science and higher education on the international arena and achievements in collaboration with the Polish scientific community of materials and manufacturing engineering in 2010 are achieved by the outstanding scientists:

- Prof. Rudolf Kawalla – TU Bergakademie Freiberg Germany,
- Prof. Mirko Sokovic – University of Ljubljana, Slovenia,
- Prof. Zinoviy Stolsko – Lvov University of Technology, Ukraine.

On behalf of the members of the Chapter, of the AMME'2010 Conference delegates and my own I congratulate and wish further successes in the scientific and organisational activeness to the awarded eminent Scientists and also wish them happiness in their private lives and further years in good health.

I would like to announce that for the 4th time the handing of the Professor Jan Adamczyk Honorary Award of the World Academy of Materials and Manufacturing Engineering for a young scientist for a distinguished PhD or DSc thesis will take place during this AMME'2010 Conference. Professor Jan Adamczyk, died suddenly in 2007, was a Fellow of the WAMME, and for many years was the Director of the Institute of Materials Science and 9 years Deputy Director of the Institute of Engineering Materials and Biomaterials of the Silesian University of Technology in Gliwice, Poland. It was decided that the first Professor Jan Adamczyk Honorary Award was handed to Dr Tomasz Tański from the Silesian University of Technology in Gliwice, Poland for making a rewarded PhD thesis on heat treatment and phase precipitation in magnesium-aluminum cast alloys. The second Professor Jan Adamczyk Honorary Award in 2008 was handed to Dr Piotr Bala from the AGH University of Science and Technology in Cracow, Poland for making a rewarded PhD thesis on heat treatment and phase transformations in high-speed steels. The third Professor Jan Adamczyk Honorary Award in 2009 was handed to Dr Marek Kremzer from the Silesian University of Technology in Gliwice, Poland for making a rewarded PhD thesis on infiltrated aluminium alloys for porous sintered aluminium oxides.

Also that ceremony is foreseen during the Opening Ceremony of AMME'2010 Conference. I have a great honour to announce that the Chapter hands the Professor Jan Adamczyk Honorary Award for 2010 to:

- Dr Rafał Babila from the Silesian University of Technology in Gliwice, Poland – for making a rewarded PhD thesis on bulk metallic glasses prepared under the supervision of Prof. Ryszard Nowosielski. I congratulate them sincerely.

I wish nice time spent in Poland and I wish all the delegates the nice impressions from the stay in Poland and in hospitable Zakopane and Wieliczka, very many scientific expressions to all delegates, fruitful scientific debates and new constant relationships of scientific cooperation. However, I am convinced the most important reason for the satisfaction in the AMME'2010 Conference will be the participation in very attractive scientific and content-related debates in the Plenary Sessions, and also the active participation in the Poster Sessions. I wish that my conviction was shared with as great number of the AMME'2010 Conference delegates as possible.

In that place with great pleasure I would like to thank the P.T. Authors of lectures and papers included in the Conference Programme for the efforts put in their preparation, the reviewers for their evaluation, the members of the Editorial Office for their outworking and preparation for print. I hope that this activity will bring advantages to all AMME'2010 Conference delegates. The special thanks goes to Fellows of the World Academy of Materials and Manufacturing Engineering and the Members of the Association of Computational Materials Science and Surface Engineering, who personally and numerously participate in the AMME'2010 Conference, taking in that way the patronage of those institutions over that important worldwide scientific event. I would like to thank Guests and Delegates who arrived from many world countries. I am proud similarly to many delegates from Poland that our country is so numerously visited by you for what I thank you very much. The warm thanks goes to the broad team of my closest co-workers – the staff of the Institute of Engineering Materials and Biomaterials and especially of the Division of Materials Processing Technologies, Management and Computer Techniques in Materials Science of my mother Silesian University of Technology in Gliwice, Poland for the efforts connected with all organisational activities put in the preparation the AMME'2010 Conference and the realisation of that important and big scientific event.

Prof. Leszek A. Dobrzański M Dr hc
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