

SCIENTIFIC COMMITTEE
I. Mamuzić – President

**Survey of 9th International Symposium
of Croatian Metallurgical Society (CMS)**

**S H M D
'2010.**

"Materials and Metallurgy"
<http://public.carnet.hr/metalurg>

Šibenik 2010, June 20-24
Solaris Holiday Resort, Croatia

9th International Symposium of Croatian Metallurgical Society «Materials and Metallurgy» was held as a part of:

- **150th anniversary** of THE ESTABLISHMENT OD STEEL INSTITUTE VDEh, DÜSSELDORF, Germany
- **90th anniversary** of THE ESTABLISHMENT OF DNEPROPETROVSK NATIONAL UNIVERSITY, Dnepropetrovsk, Ukraine
- **70th anniversary** of STUDIES OF METALLURGY OF UNIVERSITY OF LJUBLJANA, Slovenia
- **60th anniversary** of THE ESTABLISHMENT OF INSTITUTE OF METALS AND TECHNOLOGY, Ljubljana, Slovenia
- **55th anniversary** of THE ESTABLISHMENT OF INSTITUTE OF MATERIALS RESEARCH Slovak Academy of Sciences, Košice, Slovakia
- **50th anniversary** of THE ESTABLISHMENT OF: – TECHNICAL FACULTY, UNIVERSITY OF RIJEKA, Rijeka, Croatia – FACULTY OF ELECTRICAL ENGINEERING, MECHANICAL ENGINEERING AND NAVAL ARCHITECTURE, UNIVERSITY OF SPLIT, Split, Croatia
- **20th anniversary** of INTENSE INTERNATIONAL COOPERATION OF CROATIAN METALLURGICAL SOCIETY, Zagreb, Croatia

**At the 9th International Symposium of Croatian Metallurgical Society
«Materials and Metallurgy» had participated following countries:**

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|---------------------------|-----------------|-------------------------------|
| 1. Argentina | 17. Germany | 33. Russia |
| 2. Austria | 18. Hungary | 34. Serbia |
| 3. Belgium | 19. India | 35. Serbia/Republic of Kosovo |
| 4. Belarus | 20. Indonesia | 36. Singapore |
| 5. Benelux | 21. Italy | 37. Slovakia |
| 6. Bosnia and Herzegovina | 22. Japan | 38. Slovenia |
| 7. Brasil | 23. Korea | 39. South Africa |
| 8. Bulgaria | 24. Lithuania | 40. Spain |
| 9. Chile | 25. Macedonia | 41. Sweden |
| 10. China | 26. Malaysia | 42. Thailand |
| 11. Croatia | 27. Montenegro | 43. Turkey |
| 12. Czech Republic | 28. Netherlands | 44. Ukraine |
| 13. England | 29. Philippine | 45. USA |
| 14. Egypt | 30. Poland | 46. Vietnam |
| 15. Finland | 30. Portugal | |
| 16. France | 32. Romania | |

The aim of this Symposium is to point out all the possibilities of the materials and achievements in metallurgy.

TOPICS OF THE SYMPOSIUM WERE:

Materials

- New Materials
- Refractory Materials
- The Development
- Applications
- Physical Metallurgy

Metallurgy

- Process Metallurgy and Foundry
- Plastic Processing of Metals and Alloys
- Technologies
- Energetics
- Ecology in Metallurgy
- Quality Assurance and Quality Management

There were 541 reports, over 900 authors and coauthors registered for the 9th International Symposium of the Croatian Metallurgical Society.

290 participants were present at the symposium. Symposium activity took place through plenary lectures and four sections (poster):

Plenary lectures	8
Materials - Section "A"	261
Process Metallurgy – Section "B"	94
Plastic Processing – Section "C"	64
<u>Metallurgy and Related Topics – Section "D"</u>	<u>114</u>
	Σ 541

For the plenary lectures research topics were selected relating partly to the new materials and partly to the increase of efficiency of metallurgical procedures, as well as improving of research of Al-alloys selected new technologies and simulation in material forming, severe plastic deformation etc.

PLENARY LECTURE WERE:

D. Vojtech; *Institute of Chemical Technology, Prague, Czech Republic. Challenges for research and development of new aluminum alloys.*

F. Chowanec*, **J. Mannheim****, **J. Raab*****, **R. Talarek******; *Arcelor Mittal, Ostrava; **Steelworks of Trinec; ***Czech Steel Federation, Prag, Czech Republic; ****Polish Steel Association, Poland. Steel Industry in the New EU Members in Comparison with the Global Trends.*

J. Kliber, I. Mamuzić*; *Faculty of Metallurgy and Materials Engineering, VŠB-TU, Czech Republic; * Faculty of Metallurgy University of Zagreb, Sisak, Croatia. Selected new technologies and research themes in materials forming.*

R. Kawalla, M. Graf, K. Tokmakov; *Institute for Metal Forming, TU Bergakademie Freiberg, Germany. Simulation system of multistage hot rolling process of flat products.*

F. Vodopivec, B. Šuštaršič, J. Vojvodič-Tuma, G. Kosec*; *Institute of Metals and technology, Ljubljana, Slovenia; *SIJ, Acroni d.d. Jesenice, Slovenia. Charpy notch toughness and hardness of reheated martensite and lower bainite.*

S. Dobatkin, J. Zrnik*, I. Mamuzić**; *Baikov Institute of Metallurgy and Materials Science, Russian Academy of Sciences, Moscow, Russia; *COMTES FHT, Plzen, Czech Re-*

*public; **University of Zagreb, Sisak, Croatia. Development of SPD Continuous Processes for Strip and Rod Production.*

Yu. G. Gulyayev, YE. I. Shyfrin*, I. Mamuzić, D. YU. Garmashev***, N. A. Maximova******; *National Metallurgical Academy, Dnepropetrovsk, Ukraine; * Tube Metallurgical Company, Moscow, Russia; ** Metallurgical Faculty, University of Zagreb, Croatia; *** OJSC "Interpipe NTZ", Dnepropetrovsk, Ukraine; **** National Mining University, Dnepropetrovsk, Ukraine. The modern trends of development of the pipe and tube industry.*

I. Samardžić; *Faculty of Mechanical Engineering University of Osijek, Slavonski Brod, Croatia. Review of papers Materials and Metallurgy (section "A", "B", "C", "D").*

Comprehensive outline of plenary reports (the 6 reports) were published in the journal *Metalurgija* 49 (2010) 3, 149-154; 165-190 as the articles. The summaries of all lectures of 9th Symposium were published also in *Metalurgija* 49 (2010) 3, 191-240.

For this symposium the reports were prepared by the authors and coauthors from various world universities, institutes, academies and companies. It is to be emphasized that the scientists from Croatian universities (Zagreb, Split, Rijeka, Osijek) participated in the symposium.

In the time of 9th Symposium was also held:

Meeting of International Editorial Board of the Journal *Metalurgija*, June 21, 2010; 6³⁰ PM

Minutes of this Meeting, *Metalurgija* 49 (2010) 4, 291-292:

– Meeting of Managing Board of Croatian Metallurgical Society, June 22, 2010; 1.⁰⁰ PM

– Annual Election Assembly of Croatian Metallurgical Society (20 Participants, delegates of Institute, University etc. June 22, 2010; 6⁰⁰PM

More than 150 participants were included in a round table session on the achievements, conclusions and closing of the 9th International symposium "Materials and Metallurgy" (June 23; 6.⁰⁰ PM)

In the discussions it was confirmed that the symposiums organized by Croatian Metallurgical Society have become traditional assembly of experts and scientists of various profiles: metallurgists, geologists, physicists, chemists, mechanical engineers etc.

Based on the analysis and evaluation of the subject matter of the symposium, the symposium has been appraised positively and it has been acknowledged that it has its place in the international exchange of knowledge.

It is reasonable to conclude that the demonstrated results of scientific and professional investigation accompanied by the complete and quality manifestations, especially discussions at the round table prove that the organizing of the 9th International symposium of Croatian Metallurgical Society "Materials and Metallurgy" in Šibenik 2010, June 20-24 was justified. Especially has to be emphasized that the participants will keep wonderful memories of Šibenik and Solaris Hotels.

Based on the agreement of Meeting of World Metallurgical Societies, Düsseldorf, November 2009 y, and the conclusion of the round table, the next 10th International Symposium of Croatian Metallurgical Society "Materials and Metallurgy" will be held 2012 – June 17-21.