

Title of the session: Current challenges for laboratories cooperating with the industry

Date: 12.04.2019.

Location of organization of the thematic session – Centralne Laboratorium
Pomiarowo – Badawcze
Sp. z o.o., sala szkoleniowa

Time: 9:00 – 15:00

Expected time of presentations - 15:00 min

Supervisor of the session – dr inż. Aleksandra Burczyk tel. 32 756 52 96 e-mail: aburczyk@clpb.pl

Leader of the session – dr hab. Iwona Jelonek, Uniwersytet Śląski

Description of the session:

Session topics are dedicated to the challenges faced by the laboratory industry in the face of the technological revolution. The BAT conclusions for coke production, legal regulations in the field of monitoring the quality of solid fuels, the changing law of environmental protection and the working environment, force the development of applied research methods in the analytical and technological areas. Laboratories cooperating with the industry must simultaneously meet the introduced breakthrough technologies of industry 4.0.

1. Laboratories today and tomorrow in the light of the challenges of the changing environment.
2. Petrography - a determinant of modern coal technologies.
3. New fuel - a new challenge. Hydrogen analysis.
4. Challenges for 4.0 industry laboratories in the area of Polish power industry.
5. The role of the accredited laboratory in the process of supervising the quality of coal produced for households and boilers <1MW.
6. Occupational risk assessment for quartz and cristobalite in hard coal mining in the light of the change in occupational exposure limits.
7. Natural hazards in mining and the role of the laboratory.
8. BAT for coke industry - a challenge for the industry and laboratories.
9. CLP-B Waste Test - as an effective method of identifying waste incineration.
10. Addition to coal mills and fine coal as well as biomass and sewage sludge, improving their fuel properties.
11. Project of the implementation of the identification system of admixtures, additives in fuel materials and waste resulting from their combustion.
12. Robotization and automation of laboratory tests. A challenge or a necessity?
13. Automation of the sample preparation process
14. Production of carbon reference materials (CRM) for laboratories.
15. Computerization in an accredited testing laboratory.

After delivering all the presentations will be the Central Measurement and Research Laboratory Ltd.
will be presented

Agenda:

Part I: Current challenges for laboratories cooperating with the industry

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| 9.00 – 9.10 | Welcoming invited guests
Wiesława Budziszewska, President of the Management Board the Central Measurement and Research Laboratory Ltd.. |
| 9.10-9.25 | Laboratories today and tomorrow in the light of the challenges of the changing environment
Dr eng. Aleksandra Burczyk, the Central Measurement and Research Laboratory Ltd.. |
| 9.25 – 9.40 | Petrography as a determinant of modern coal technologies
Dr hab. Iwona Jelonek, University of Silesia |
| 9.40 – 9.55 | New fuel - a new challenge. Hydrogen analysis. |

- 9.55 – 10.10 Teresa Topolnicka Institute for Chemical Processing of Coal
Challenges for 4.0 industry laboratories in the area of Polish energy Dr hab. Eng. Magdalena Wdowin prof. IGSMiE PAS Institute of Mineral Resources and Energy PAS
- 10.10 – 10.25 The role of an accredited laboratory in the process of supervising the quality of coal produced for households and boilers with a capacity of <1MW Dr eng. Łukasz Smędowski Tauron Wydobycie S.A
- 10.25 – 10.45 Coffee break

Part II: Safety, natural hazards and environmental protection

- 10.45 – 11.00 Occupational risk assessment for quartz and cristobalite in hard coal mining in the light of changes in occupational exposure levels.
Grzegorz Sporysz Research and Supervisory Centre of Underground Mining. Marian Penkała Central Measurement and Research Laboratory Ltd.
- 11.00 – 11.15 Natural hazards in mining and the role of the laboratory
Dr hab. Mirosław Wierzbicki Central Measurement and Research Laboratory Ltd
- 11.15 – 11.30 BAT for coke industry - a challenge for the industry and laboratories
Marcin Walas JSW KOKS S.A
- 11.30 – 11.45 CLP-B Waste Test - as an effective method of identifying waste incineration
Dr eng. Aleksandra Burczyk Central Measurement and Research Laboratory Ltd.
- 11.45 – 12.00 Dodatek do mułów i miałów węglowych oraz biomasy i osadów ściekowych, poprawiający ich właściwości paliwowe
Dr hab. inż. Danuta Król Politechnika Śląska
- 12.00 – 12.15 Projekt wdrożenia systemu identyfikacji domieszek, dodatków w materiałach opałowych oraz odpadach powstałych w wyniku ich spalania
Wojciech Szulik Central Measurement and Research Laboratory Ltd.
- 12.15 - 12.35 Coffee break

Part III: Innovations in laboratories

- 12.35 – 12.50 Robotization and automation of laboratory tests. A challenge or a necessity?
Wojciech Szulik, Central Measurement and Research Laboratory Ltd.
- 12.50 – 13.05 Automation of the sample preparation process
Magdalena Murdzek, Bartłomiej Krysiński Centre of Quality Testing KGHM S.A. Group
- 13.05– 13.20 Production of coal reference materials (CRM) for laboratories
Katarzyna Więcek, Proficiency Testing Centre CLP-B LABTEST Central Measurement and Research Laboratory Ltd.
- 13.20 – 13.35 Computerization in an accredited research laboratory
Natalia Urbańczyk Research and Supervisory Centre of Underground Mining 13.35
- 14.00 Lunch
- 14.00 -15.00 Presentation of research laboratories of the Central Measurement and Research Laboratory Ltd.