

The Czech Ceramic Society invites you to participate in

REFRA PRAGUE 2019

the 20th conference on modern refractory materials and key achievements in high temperature technologies, held from **24th to 26th April, 2019** at the site of the Czech Association of Technical Societies at Novotného lávka 5, Prague 1.



The scientific program will include the following groups of topics:

- **Energy aspects of high-temperature processing**
energy efficiency, measurement and regulation, environmental aspects
- **Refractory and thermal insulating materials for high-temperature technologies**
in metallurgy, glass production, chemical and petrochemical productions, building materials production, waste combustion, etc.
- **Corrosion of refractory materials**
impact of technology, fuels, aggressive environments, etc.
- **New grades of refractory materials**
adding nanomaterials, refractories for future challenges, simulation techniques, etc.

Deadline for the submission of full papers is **10th of April**.

Dr. Dipl.-Ing. Michal Přebyl
President of the Czech Ceramic Society



PARTICIPATION CONDITIONS AND INSTRUCTIONS:

1) Conference fee and registration

On-line registration is available at www.silikaty.cz. The invoice will be sent to your e-mail address within two weeks after the registration.

Conference fees till 31st March 2019:

Full: 400 EUR or 10 000 CZK

For members of The Czech Ceramic Society: 200 EUR or 5 000 CZK

Students: 200 EUR or 5 000 CZK

Accompanying person: 150 EUR or 3 750 CZK

Conference fees from 1st April 2019:

Full: 500 EUR or 12 500 CZK

For members of The Czech Ceramic Society: 300 EUR or 7500 CZK

Students: 300 EUR or 7500 CZK

Accompanying person: 200 EUR or 5 000 CZK

The conference fee covers the expenses associated with the organization of the conference, conference proceedings, reception, refreshment, evening social events, etc. The accommodation is not included.

If you wish to advertise in the conference proceedings, please contact the secretariat (Novotného lavka 5, Prague 1, Company ID: 550043, sis@csvts.cz). Exhibitors are welcome to present their companies or products in form of an exhibition table or exhibition panel in the foyer of congress hall. Registration will take place at Novotného lavka 5, Prague 1

2) Conference registration and brief program

24th April

12 00 - 13 00 Registration

13 00 - 17 30 Lectures

18 00 - 21 00 Get together

25th April

9 00 - 12 10 Lectures

12 10 - 14 00 Lunch

14 00 - 15 20 Poster session

16 30 - 22 00 Cruise and Raut

26th April

9 00 - 12 00 Lectures

3) Conference language

All lectures and posters will be presented in English. Translation from English to Czech will be ensured (interpreting equipment and interpreter).

4) Accommodation

The organizers do not provide accommodation. Please visit <http://www.prague.eu/en> for accommodation and other information about Prague events.

5) Advertisement

If you wish to advertise during the conference, please contact the secretariat (Novotného lavka 5, Prague 1, Company ID: 550043, sis@csvts.cz). Exhibitors are welcome to present their companies or products in form of an exhibition table or exhibition panel in the foyer of congress hall.

6) Publication opportunities

Selected fulltexts will be published in **AIP Conference proceedings of Thermophysics 2019 and REFRA 2019** indexed in Web of Science and Scopus.



PRELIMINARY CONFERENCE PROGRAM

24th April

13 00 – 13 30

Words of welcome

M. Příbyl (The Czech Ceramic Society)

13 30 – 14 05

KEYNOTE

Corrosion of silicon nitride and alumina based ceramics by molten iron

P. Šajgalík, M. Hnatko, M. Tatarková, J. Sedláček, R. Bystrický,

Z. Lenčేశ, D. Galusková (Slovak Academy of Sciences)

14 05 – 14 40

KEYNOTE

Clean steel technology based on refractory filtering materials

C. G. Aneziris, P. Gehre, T. Wetzig, E. Storti, S. Dudczig, J. Hubálková (TU Bergakademie Freiberg)

14 40 – 15 00

Coffee break

15 00 – 15 35

KEYNOTE

Changes in quality of silica bricks after 20 years of operational exposure in a heating wall of coke oven battery

S. Dvořák, K. Lang, L. Vařica, T. Strouhal (PD Refractories)

15 35 – 16 10

KEYNOTE

An innovative method for high-performance dry gunning

H. Jansen, P. Tassot, B. Kesselheim (REFRATECHNIK STEEL)

16 10 – 16 30

Coffee break

16 30 – 16 50

Development of ultralow-cement spinel castable for working lining of ladle in Železiarne Podbrezová

Ľ. Ďurík, J. Švantner, Ľ. Parilák, M. Brenkus (ŽIAROMAT)

16 50 – 17 10

Customized additives solutions for Low Cement Castables technology

F. Simonin, C. Wöhrmeyer, P. Edwards, C. Parr (Imerys Aluminates)

17 10 – 17 30

Separation of iron oxides from fly ash by magnetic field

R. Novotný, F. Šoukal, E. Bartoníčková (Mater. Res. Centre BUT)

18 00 – 21 00

Get together

25th April

9 00 – 9 35

KEYNOTE

A review of calcium magnesium aluminate applications in Refractory bricks and monolithics

C. Wöhrmeyer, J. Gao, G. Bhattacharya, C. Parr, P. Edwards (Imerys Aluminates)

9 35 – 10 10

KEYNOTE

High temperature corrosion and oxidation of advanced ceramics and glass-ceramic composites

D. Galusek (FunGlass)

10 10 – 10 30

Coffee break

10 30 – 10 50

Carbon-bonded alumina foam filters produced by centrifugation: A route towards improved homogeneity

B. Luchini, J. Hubálková, T. Wetzig, J. Grabenhorst, J. Fruhstorfer, V. C. Pandolfelli, C.G. Aneziris (TU Bergakademie Freiberg)

10 50 – 11 10

High performance insulation for piping and other technological apparatuses, mainly dedicated to chemical and petrochemical production

P. Škarabela, M. Příbyl (Promat)

11 10 – 11 30

Monolithic refractory lining for the melted ash mode operating waste incinerators

T. Štícha, M. Henek, M. Henek (Fireclay)

11 30 – 11 50

Optimizing the energy efficiency of high-temperature processes by experiment-based process simulations

G. Seifert, H. Friedrich (Fraunhofer-Center for High Temperature Materials and Design HTL)

11 50 – 12 10

Additive manufacturing of templates to produce functional coated carbon-bonded alumina foam filters – feasibility study

A. Herdering, J. Hubálková, M. Abendroth, P. Gehre, C.G. Aneziris (TU Bergakademie Freiberg)

12 10 – 14 00

Lunch



- 14 00 – 14 20 **Towards novel nano-functionalized ceramic foam filters: contribution of 1D and 2D carbon-based nanomaterials**
O. Jankovský, D. Sedmidubský, E. Storti, B. Luchini, C.G. Aneziris (UCT Prague)
- 14 20 – 14 40 **The new tempering kiln at SLOVMAG a.s. in Lubenik, Slovakia**
J. Mendheim, O. Orisenkova (Slovmag)
- 14 40 – 15 00 **Newly developed refractory aggregates in the company P-D Refractories CZ a.s.**
K. Lang, L. Tvrđík, P. Kovář, L. Keršnerová, D. Všianský, L. Nevřivová (PD Refractories)
- 15 00 – 15 20 **Lightweight refractories fabricated by foam casting**
E. Bartoníčková, F. Šoukal, R. Novotný, P. Ptáček, L. Tvrđík, K. Lang (Mater. Res. Centre BUT)
- 16 30 – 22 00 **Cruise and Raut**
- 26th April**
- 9 00 – 9 35 **KEYNOTE**
- 9 35 – 9 55 **Corrosion of high alumina refractory concretes by calcium slag-melt**
P. Vadász, B. Plešingerová, G. Sučík, D. Medved', L. Ďurík, L. Parilák (TU Košice)
- 9 55 – 10 20 **Improving the properties of refractory materials by sol-gel method**
L. Keršnerová, K. Lang, P. Kovář, L. Nevřivová (PD Refractories)
- 10 20 – 10 40 **Coffee break**
- 10 20 – 10 40 **Shape-adaptable silicon-carbide-based castable shapes with increased oxidation resistance**
N. Pávková, P. Břicháček (Průmyslová Keramika)
- 10 40 – 11 00 **Refractory materials for biomass combustion**
P. Kovář, K. Lang, J. Vlček, H. Ovčačíková, M. Klárová, J. Burda, M. Velička, M. Topinková (PD Refractories)
- 11 00 – 11 20 **Fast dry-out of no-cement refractory castables**
H. Peng, B. Myhre (Elkem Silicon Materials)
- 11 20 – 11 40 **Electrospinning of nano/micro fibres containing high Al₂O₃**
M. Míka, J. Hamáček, J. Macháček, F. Lahodný, J. Kutzendörfer