

6th International Conference on Polycarboxylate Superplasticizers (PCE 2025)

23 - 25 July 2025

www.pce-conference.org

Hosted by









PROGRAM		PROGRAM	
Wednesday, 23 July 2025		Thursday, 24 July 2025	
	Workshop	09:30	Opening and Welcome Prof. J. Plank and Prof. N. Makaratat
09:15-09:50	Prof. Johann Plank, <u>Technische Universität München, DE</u> Fundamentals of PCE Technology		Oral Presentations I Chair: Prof. Lei Lei
09:50–10:20	Dr. Ara Jeknavorian, Jeknavorian Consulting Services, US Use of Nanosilica to Improve the Air- Void Quality of Air-entrained	09:50–10:20	Dr. Ara Jeknavorian, <u>Jeknavorian Consulting Services, US</u> Essential Role of PCE for Sustainable Concrete
10:20–10:50	Concrete Superplasticizer with PCE Prof. Lei Lei,	10:20–10:50	Dr. Gerhard Albrecht, Technical Consulting Service, JP Invisible heroes: The Transformative
	Hunan University, CN Compositional Analysis of PCE Superplasticizers		Power of Polyether Polymers in Con- struction and Beyond
10:50–11:20	COFFEE BREAK	10:50–11:15	Roenko A.V., Dr. Andrew Malinin et al., EvroSintez/Moscow State Univ., RU HPEG vs. EPEG: Impact of PCE Syn-
11:20–11:40	Dr. Seungtaek Oh & Y.G. Ju Silkroad, South Korea	11:15–11:40	thesis on Concrete Performance COFFEE BREAK
11:40–12:00	Admixtures for Concrete in Cold & Hot Weather and for Gypsum Board Dr. M. Dekiouk & U. Gehrke BUSS ChemTech AG, CH	11:40–12:10	Dr. Roberta Alfani, Patrick Azar et al., <u>Ecocem Materials, FR</u> <u>ACT Technology – Potential of</u> <u>ECOCEM's Low Clinker Binders for</u>
	Production of Alkoxylate Precursors for PCEs – Safe and Efficient Process	12:10 12:40	Sustainable Construction
12:00–13:00	LUNCH BREAK	12:10–12:40	Prof. Lei Lei, Hunan University, CN Next-Generation PCE for AAS Binders
13:00–18:00	Departure to Concrete Laboratory of <u>CPAC</u> / <u>Siam Cement Group</u> Demonstration of Optimized PCE Technology and 3D Printing using Calcined Clay Cement	12:40–13:00	Dr. Yunhui Fang, KZJ New Materials, CN Structural Regulation & Performance Study of Fast Dispersing PCEs
	(Max. 100 participants) For program, see attachment at P. 10 2	13:00–14:00	LUNCH BREAK
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Thursday, 24 July 2025

	Oral	presentatio	ns II
hair:	Prof.	Nattapong	Makaratat

14:00	-14:25	Dr. C.E. Diesendruck & Dr. A. Mezhov,
		<u>Technion – Israel Inst. of Tech., IL</u>
		Synthetic and Natural Poly-
		phosphates as Superplasticizers

	phosphates as Superplasticizers
14:25–14:50	Dr. Xiuxing Ma, KZJ New Materials, CN Molecular Design of Long- and Ultra- Long Acting PCEs for Slump Retention
14:50–15:15	Qing Shen, Prof. Zhenping Sun et al., <u>Tongji University, CN</u> <i>Influence of PCE Phosphate Content on Cement Paste Rheology</i>
15:15–15:40	Dr. M.Y. Yardimci, Dr. B. Aslan et al., Dokuz Eylul Uni./Kalekim Lyksor, TR

Activated Materials

Development of a Novel Silane-Functionalized PCE for Alkali-

15:40–16:10 COFFEE BREAK

PROGRAM

Thursday, 24 July 2025

Oral presentations III Chair: Dr. Gerhard Albrecht

16:10-16:30	Dr. X. Wang, Prof. Ziming Wang et al.,
	Jiangsu ARIT/Beijing Univ. of Tech., CN
	Molecular Design of Degradable
	Polycarboxylate Superplasticizer –
	Decoupling Dispersion from
	Retardation

10.30-10.33	Dr. Manuel lig,
	BASF Trostberg, DE
	Selective Control of the Formation of
	Ettringite in Ternary Binders

16:55–17:15	Jiaxin Chen & Prof. Johann Plank,
	Technische Universität München, DE
	Do PCEs adsorb preferentially on OPC
	or Calcined Clay?

17:15-17:30	Dr. Sakprayut Sinthupinyo,
	SCG Cement Co.,Ltd., TH
	Improving Concrete Sustainability
	with Biochar and Polycarboxylate
	Ether (PCE)

	Presentation of China Con
	KZJ New Materials, CN
17:30–17:45	Dr. Xiuxing Ma,

Presentation of China Concrete
Admixture Museum in Xiamen –
History and Technology Innovations

19:00-22:00 CONFERENCE DINNER

4

PROGRAM

Friday, 25 July 2025

Oral presentations IV

Chair: Prof. Ziming Wang

09:00–09:30 Dr. Ara Jeknavorian,

Jeknavorian Consulting Services, US

A Review of Synergistic Interactions
between Polycarboxylates and other
Chemical Admixtures

09:30-10:10 Prof. Johann Plank,

Technische Universität München, DE

Decarbonization of the Global Cement Industry – Concepts,

Problems and Solutions

10:10–10:35 Dr. Vipasri Kanchanason et al.,

SCG Cement Co.,Ltd., TH

Effect of PCE on Workability of LC3

from Thailand

10:35–11:00 Sungjin Jung & Prof. Juhyuk Moon,

Seoul National University,, KR

Enhanced Hydration Reaction of LC3: Particular Emphasis on Calcined Clay

Reactivity

11:00–11:30 COFFEE BREAK

PROGRAM

Friday, 25 July 2025

Oral presentations V

Chair: Dr. Roberta Alfani

11:30–11:55 Dr. R. Tanimoto, T. Nakano et al.,

Kao Corporation, JP

Design of a New Clay-Resistant Additive

11:55–12:20 Dr. Tong Lu, Prof. Ziming Wang et al.,

Jiangsu ARIT/Beijing Uni. of Tech., CN

Optimizing PCE Structure & Per-

formance Through Process Control

12:20–12:45 Dr. M. Cruickshank, Dr. R. Alfani et al.,

Ecocem Materials, FR
Role of Superplasticizers on Pore

Solution of Eco-Efficient Cements

12:45–13:00 Xinyue Wang & Prof. Johann Plank Technische Universität München, DE

Slump Retention in High CC Cements

13:00–14:00 LUNCH BREAK

Oral presentations VI Chair: Dr. Sakprayut Sinthupinyo

14:00–14:25 In Kuk Kang & Prof. Jae Hong Kim,

KAIST, KR
Automated Exp. Evaluation of Cement

Dispersant on Rheological Properties

14:25–14:50 Dr. Alexey Yalymov, Sika LLC, Moscow, RU

PCE Cluster In Sika Russia: Growth

History, Unique Facilities and Products

14:50–15:10 Dr. Vivek Naik

Apple Chemie India Pvt. Ltd, IN

PCE for Enhancing Concrete Durability: The Indian Perspective

7 COFFEE BREAK

6

15:10–15:40

PROGRAM

Friday, 25 July 2025

Oral presentations VII *Chair: Prof. Johann Plank*

15:40–16:10 Presenting the

Young Researcher Award Awardee: Dr. Manuel Ilg BASF Trostberg, DE

16:10–16:30 Prof. Johann Plank,

Technische Universität München, DE What comes next? The Future of

PCE Technology

16:30-17:30 Panel discussion

Decarbonization of the Cement Industry – How does this transition

affect admixtures?

Panelists:

Prof. Dr. Johann Plank (Moderator)
Mr. Manasit Sarigaphuti, Thailand
Dr. Roberta Alfani, Ecocem, France
Prof. Dr. Ziming Wang, BUT, China
Dr. Oh Seungtaek, Silkroad, S. Korea
Dr. Alexey Yalymov, Sika, Russia
Dr. Vivek Naik, Apple Chemie, India

17:30 Closure

Posters

- Preparation of Shrinkage-Reducing PCE
- Preparation&Performance of Viscosity-Modified PCE
 Dr. Y. Fang, Y. Lin, X. Zhang, KZJ New Materials, CN
- Viscosity-Reducing PCE: Preparation and Performance in Concrete

Dr. Jiaji Chen, CNBM Zhongyan Technology, CN

GENERAL INFORMATION

GET-TOGETHER

The get-together will be held on 22 July from 18:00 to 21:00 at **Century Park Hotel**, and the location will be announced in the lobby. Light snacks and drinks will be provided.

AIM OF THE CONFERENCE

PCE 2025 highlights the role of PCE superplasticizers in the ongoing "green" transition of the cement industry, showcasing advances in synthesis and global application of Innovations in PCE technology.

REGISTRATION FEE

PCE 2025 Conference

690 € (regular price)

23 – 25 July 2025

300 € (student price)

Note: All local Thai participants, please register through our partner TCA.

INFORMATION BEFORE AND AFTER THE CONFERENCE

Prof. Dr. Johann Plank

Technische Universität München Lichtenbergstr. 4

85748 Garching bei München, Germany

Email: pce.conf@gmail.com

Tel.: +49 89 289 13170

PCEs at Concrete Laboratory of CPAC Ready-Mix Company

Date: 23 July 13:00 - 18:00

Program:

- Comparison of novel pre-cast EPEG PCE vs. HPEG PCE (product provider: Silkroad)
- Reduced Stickiness of Concrete Using Phosphated Superplasticizer (MasterEase 5020 from Sika)
- Demonstration of Low Carbon Concrete Based on ACT Technology (product provider: Ecocem and Chryso)
- 3D Printing Using Calcined Clay Blended Cement (provider: Siam Cement Group, SCG)

Note: Bus will depart on-time at 13:00 from Century Park Hotel

ORGANIZER

Technical University of Munich





Prof. Dr. Johann Plank

CO-ORGANIZER





Prof. Dr. Nattapong Makaratat





Prof. Dr. Lei Lei

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South Korea



Kalekim Lyksor Kimya San. A.S.

Turkiye



Testing Bluhm & Feuerherdt

GmbH, Germany

UPCOMING EVENT





TUM/ACI 2026 Conference

Formerly CANMET / ACI Conference

14th International Conference on Superplasticizers and Other Chemical Admixtures in Concrete (**SOCAC**)

16th International Conference on Recent Advances in Concrete Technology and Sustainability Issues (RACTSI)

> Munich, Germany 06 – 10 July 2026

> > www.aciconf.de

Aim of the Conference

The TUM/ACI 2026 Conference will focus on innovations in concrete technology, the 14th International featuring Conference on Superplasticizers and Other Chemical Admixtures in Concrete (SOCAC) and the 16th International Conference on Recent Advances in Concrete Technology and Sustainability Issues (RACTSI). The event will highlight advancements in sustainable concrete practices, low-carbon solutions, and admixture technology. Join us in Munich to engage with experts, explore industry trends, and deepen your knowledge of sustainable concrete solutions.

