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## Venue

Park Inn Copenhagen Airport  
Engvej 171, DK - 2300 København S  
[www.copenhagen.parkinn.dk](http://www.copenhagen.parkinn.dk)



Øresund Bridge © Danish Teknological Institute

## Partners



# OPEN MEETING NANOCEM

Role of Nano and Micro  
processes in the performance  
of Cement and Concrete

April 25<sup>th</sup>, 2006  
Park Inn, Copenhagen  
Denmark



<http://www.nanocem.org>

Despite being the most widely used building material in the world, the fundamental mechanisms underlying the behaviour of concrete are very poorly understood, because of its chemical and physical complexity. New techniques to characterise materials at the nanoscale has provided a unique opportunity to apply such methods to the study of cement and related materials.

A European Research Network known as Nanocem, has been established to generate basic knowledge on the nano- and microscale phenomena which affect the essential characteristics of cement and concrete. It is anticipated that the understanding generated in this way will enable technological breakthroughs and innovation in this field and will provide added value for the whole industry.

Nanocem comprises 33 academic and industrial partners with an interest in cementitious materials. There are some 120 academic researchers in the team who between them are in the process of preparing some 60 theses in the area of fundamental research. The members of Nanocem collectively have access to a large range of state of the art equipment for the study of cementitious materials. The Network consists of centrally financed Core projects each involving several partners, and partner projects contributed by every academic partner.

At this open meeting the partners and research of the network will be presented. This will be of interest to a wide range of personnel throughout the construction sector. There will be a fee at 500 DKK (75 €) for attending the meeting.

## Programme

### 10:00 REGISTRATION AND COFFEE

#### 10:30 Welcome

Mette Geiker, Tech. Univ. of Denmark (DTU)

#### 10:35 Presentation of Nanocem

Karen Scrivener, Ecole Polytechnique  
Fédérale de Lausanne (EPFL)

#### 10:50 The society's needs

Peter Lundhus, Femern Bælt A/S

### 11:20 Industrial perspectives on need for Nanocem network

Jesper Sand Damtoft, Aalborg Portland A/S

### 11:40 Increasing political awareness through European Construction Technology Platform

Jesus Rodriguez, Dragados, Chairman of Support Group (ECTP)

### 12:10 Questions and discussion

### 12:30 BUFFET LUNCH

### 14:00 Innovation by chemical nanotechnology

Stephan Altmann, BASF AG

### 14:40 Questions and discussion

### CORE PROJECTS

#### 15:00 Workability, effect of admixtures and cement

Henri Van Damme, Ecole supérieure de Physique  
et de Chimie de la Ville de Paris (ESPCI)  
Robert Flatt, Sika Technology AG

#### 15:20 Hydration of blended cements

Karen Scrivener, EPFL  
Winnie Matthes, Holcim Group Support Ltd

#### 15:40 Break

#### 16:10 Pore structure characterisation by magnetic resonance techniques

Peter McDonald, University of Surrey  
Alain Capmas, L'Association Technique de  
l'Industrie des Liantes Hydrauliques (ATILH)

#### 16:30 Mineralogy of hydrated cements

Fred Glasser, University of Aberdeen  
Ellis Gartner, Lafarge, Lab. Central de Recherche

#### 16:50 Questions and discussion

### PARTNER PROJECTS

#### 17:00 Characterisation of guest ions in cementitious materials by solid-state NMR

Jørgen Skibsted, Aarhus University

#### 17:15 Binding of moisture in concrete

Lars-Olof Nilsson, Lund University (LTH)

#### 17:30 CLOSE

## REGISTRATION / INDICATION OF INTEREST

Please forward before March 7<sup>th</sup> 2006 by post,  
e-mail ([saira.mohamed@epfl.ch](mailto:saira.mohamed@epfl.ch))  
or fax (+41 21 693 5800)

☐ I will attend the Nanocem Open Meeting on  
April 25<sup>th</sup>, 2006

☐ Unfortunately I cannot attend the meeting, but  
am interested to receive announcements  
of future events

Name:.....

Affiliation:.....

Address:.....

e-mail address:.....

### The meeting is organised by

Mette Geiker, Technical University of Denmark  
Mette Glavind, Danish Technological Institute  
Jesper Sand Damtoft, Aalborg Portland, A/S

### Further information may be obtained from

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