

# 2012

The 2nd International conference  
**MicroDurability**

*“Microstructure  
related durability of  
cementitious  
composites”*

Amsterdam 11-13 April



**Preliminary Announcement**

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Conference registration fee (in EURO) includes a welcome reception, a copy of the proceeding, lunches, a conference banquet and refreshments served during the conference.

	Before Jan 31, 2012	After Jan 31, 2012
Full fee	550	600
RILEM member	500	550
Member of Chinese Civil Engineering Society	500	550
Student (ID proved)	450	500

Submission of 300 words abstract:	April 30, 2011
Notification of acceptance of abstract:	June 30, 2011
Submission of full paper:	Sep 30, 2011
Notification of paper acceptance:	Dec 15, 2011
Deadline for early registration:	Jan 31, 2012
Conference date:	April 11-13 2012

Conference Registration Desk  
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Section Materials & Environment  
Microlab  
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IF-Design

<http://microdurability.tudelft.nl>

# Scope

The 1st International Conference on Microstructure Related Durability of Cementitious Composites held in Nanjing, China, 2008, has generated a lot of interest. More than 200 delegates from 17 countries participated in the conference and presented their papers. The 2nd conference in this series will be held in Amsterdam, the Netherlands. The conference will be hosted by the Section of Materials and Environment, Faculty of Civil Engineering and Geosciences, Delft University of Technology, and will be held in April, 11-13, 2012.

Durability is an essential design criterion for concrete structures and is going to be a big issue for the service life design of infrastructure in the future. Important factors which influence the durability of concrete are the cement hydration, the chemical and physical characteristics of the microstructure, the presence of (micro)cracks and transport phenomena. Moreover, the exposure conditions and mechanical boundary conditions of a structure play an important role. The use of new types of cements and of a variety of additives/powders in order to meet increasingly stringent environmental criteria forces us to investigate the impact of these developments for the microstructure and associated durability issues. The aim of the conference is to invite the leading experts from around the world to present the recent research achievements, share the latest developments and address new challenges and innovative developments in view of enhancing the durability of concrete structures.



# Main Topics

- Hydration and formation of microstructure
- (Experimental) Techniques for characterization hydration and microstructure
- Early-age deformations and internal stresses in cement-based systems
- Transport properties in cracked and uncracked concrete
- Effect of time dependent phenomena and aging on microstructure and durability
- Chemical and physical degradation under coupled (environmental) loading conditions (carbonation, chemical attack, bioinduced degradation, freeze thaw, ASR, etc)
- (Numerical) Modeling of microstructure, transport and degradation processes
- Effect of electrical current (from electrochemical protection) and corrosion products on microstructure
- New techniques for evaluation of durability and service life
- Curing technology and effect of curing on durability
- Smart cementitious materials for enhanced durability
- Durability of systems containing waste products and recycled materials
- Stability of cementitious systems used for immobilization of hazardous products
- Self healing concepts for enhanced durability of cement-based systems
- Bio-inspired and bio-degradable cementitious systems
- Durability of bio-based modifications of cement-based systems
- Durability of concrete repair: The role of microstructure at repair interface
- Design for durability: A microstructure-based durability index
- Integral strategy for sustainability and durability

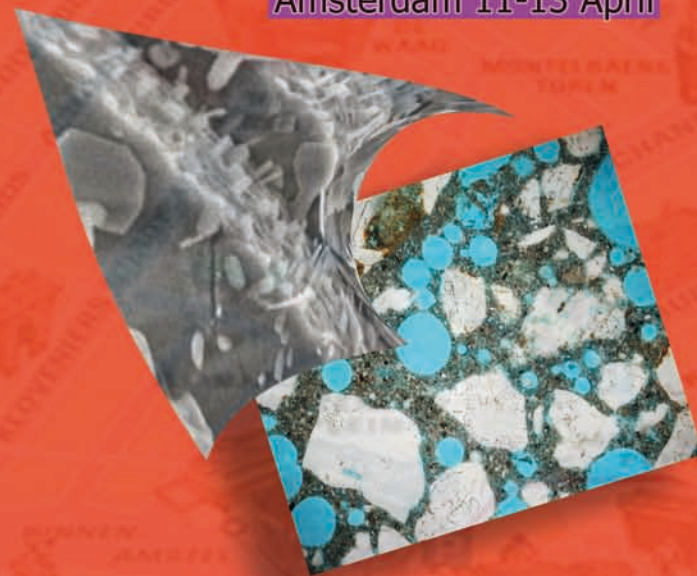
# 2012

The 2nd International conference

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Amsterdam 11-13 April



## When & Where

The conference will be held in Amsterdam, Amsterdam - The Netherlands 11-13 April 2012, the financial and cultural capital of the Netherlands. Amsterdam is one of the most popular tourist destinations in Europe, attracting people by its hundred canals, numerous museum, and historical architecture.