European doctorate in Physics and Chemistry of Advanced Materials

PCAM

Chairman: Horst-Günter Rubahn

http://www.pcam-doctorate.eu
The PCAM Network

➢ High ranking education and summer schools and workshops in Material Sciences

➢ 15 institutions and associated industries

➢ Stays at partner universities with benefit from expertise and facilities not available at home institutions

➢ Additional European doctorate certificate awarded by an international board of scientists
A bit on the history of PCAM

Founded 2006 by Gian Paolo Brivio (first chairman) and colleagues

Annual summerschools since 2006 (Milano):
Italy, Denmark, Lithuania, Spain, Russia, France, Luxembourg

First awardee F.Silvestri, exchange Milano-Bicocca & UAM

ITN Thinfact with most partners 2013 – 2017
Where is PCAM?
Who is PCAM?

Universities involved:
- University of Trieste
- Jagiellonian University Kraków
- Universidad del País Vasco Euskal Herriko Unibertsitatea
- University of Milan
- Lomonosov Moscow State University
- University of the Basque Country
- Technische Universität Dresden
- The Autonomous University of Madrid
- Carl Von Ossietzky University of Oldenburg
- University of Luxembourg
- Friedrich Schiller University Jena
- SDU University of Southern Denmark
- Graz University of Technology
- Kaunas University of Technology
Affiliated industries

SAES-Getters Italy
Plasmore Italy
Graphenea Spain
Danfoss Denmark

Ample industry partners connected to the institutions
What do you get?
Mandatory requests for a PCAM doctorate

- Stay abroad for a minimum of 3 months
- Two external referees not belonging to the home university
- Thesis needs to be sent to PCAM delegates

In addition we would like to see

- Attendance to at least one PCAM summer school
- One exam passed at a guest university or summer-school
Past schools

2006
Self-Assembled Monolayers (Univ Milano-Bicocca, Italy)

2007
At the frontier of optics: from the meso- to the nanoscale” (Sønderborg, Denmark)

2008
Physics and Chemistry of Advanced Materials (Palanga, Lithuania)

2009
Materials for Energetics (Univ. Milano-Bicocca, Italy)

2010
Basics of Materials Sciences (Palanga, Lithuania)
Past schools

2011
Electronic and Optical Properties of Nanoscale Materials (San Sebastian, Spain)

2012
Simulations for Materials Science (Moscow, Russia)

2013
Renewable energy conversion and storage (Centro Volta, Como, Italy)

2014
Stability, reliability and promises of organic systems (Sønderborg, Denmark)

2015
Organic electronics: from molecules to biomaterials (Centro Volta, Como, Italy)

SUMMER SCHOOLS
Forthcoming schools

2016
Nanosciences and hybrid materials
(Paris, France)

2017
Surfaces and Interfaces
San Sebastian (Spain)

2018
Advanced Materials and Technology
Palanga (Lithuania)

2019
Future perspectives in catalysis
Bremerhave (Germany)

2020
Smart Materials
Sønderborg (Denmark)
FUNDING

- DOMOS project, CARIPLO Foundation (2008-2011)
- PANDORA project, CARIPLO Foundation (2010-2014)
- Pierre et Marie Curie, ITN, THINFACE (2013-2017)
- Various University funds
- Erasmus+

Note: in case of uncertainty contact your university representative or the PCAM secretariate; there are ad hoc financial support possibilities
## Recent European Doctorate Awardees

<table>
<thead>
<tr>
<th>Name</th>
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<th>University</th>
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<tbody>
<tr>
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Total since 2008: 17
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**Topics of Doctorate Awardees**

- **Electronic, spin-dependent, conductive properties of modified graphene**
- **Degradation Pathways in Organic Small Molecule and Hybrid Solar Cells**
- **Theory of Ultrafast Electron Transfer from Localized Quantum States at Surfaces**
- **Laser Patterning of Nanocomposite Diamond-Like Carbon Thin Films With Metal Nanoparticles and Investigation of Their Optical and Structural Properties**
PCAM school on smart materials

"International Summer School on Organic, Perovskite and Building Integrated Photovoltaics" is part of it. Topics:

- Organic and perovskite solar cells
- Device interlayers
- Film and device stabilization
- Non-fullerene acceptor systems
- Roll-to-Roll upscaling

PCAM in Sønderborg
25.-28.8.20