Polymeric materials and composites

2024-09-05

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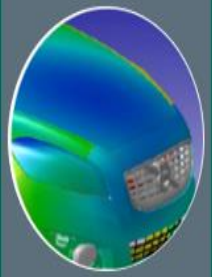
CHALMERS
UNIVERSITY OF TECHNOLOGY

INDUSTRIAL AND MATERIALS SCIENCE

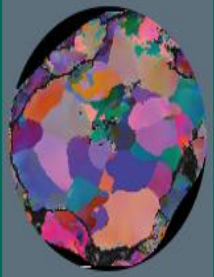
Employees: 204 (faculty 55.8)
Gender balance: 28 / 72
Turnover: 235 MSEK

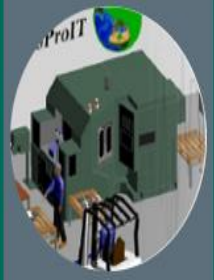

Design & Human Factors


Product Development


Material & Computational Mechanics


Engineering Materials


Materials and Manufacture


Production Systems

We empower people with knowledge and technical solutions for future industry, in a sustainable society.
Through excellent research, innovation, and education, we create future industrial value chains.

SIO LAB
STENA INDUSTRY INNOVATION LAB

wingquist LABORATORY

MCR Centre for Metal Cutting Research

CHALMERS UNIVERSITY OF TECHNOLOGY | CAM²

AREAS OF ADVANCE:
PRODUCTION
MATERIALS SCIENCE
NANO SCIENCE AND NANO TECHNOLOGY
TRANSPORT

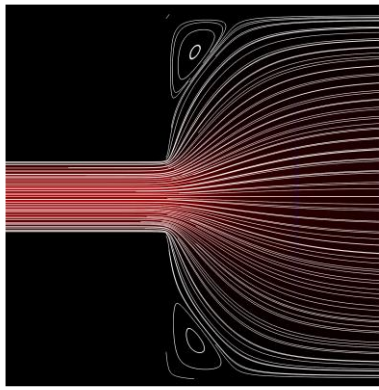
Polymeric materials and composites

Composition – Processing – Structure – Properties

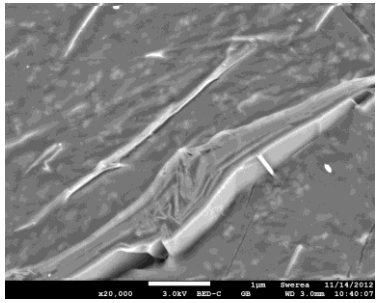
Professors Antal Boldizar and Professor Roland Kádár, Associate Professor Giada Lo Re and Professor Emeritus Mikael Rigdahl

Over time, also 2-3 Post-docs and 5-10 Research students

Research profile



- Processing and properties of polymeric materials
- Studies on rheology, time-dependent mechanical properties and physical ageing
- Renewable polymeric materials, such as based on starch, cellulose and proteins, cellulose composites and recycling of plastics



Cooperation with industry

Education in Engineering Science
Batchelor, Master, Licentiate and Doctor degrees

Research studies related to needs in society
Materials, processes and functional properties, also near industrial scale

Substantial **research cooperation** with industries, such as Volvo CC, Tera Pak, Borealis, BillerudKorsnäs, Stora Enso, Södra, Lamera, Wellspect, Lyckeby Stärkelsen

Typically 1-2 **industrial research students**, recently on

- Rheological modelling of adhesive joining
- Rheology in bolus flow
- Lifetime of district heating pipes