

## **Fabio Bignotti: curriculum vitae**

2005-present:

Associate professor in Materials Science and Technology (SSD ING-IND/22)

University of Brescia, Department of Mechanical and Industrial Engineering, Via Branze 38, 25123 Brescia (Italy)

2000-2005:

Assistant professor and lecturer in Materials Science and Technology (University of Brescia)

1991 – 2000:

Technologist in Materials Science and Technology (University of Brescia).

### **Teaching activities**

Courses at the University of Brescia (academic year 2018-19):

- Science and Technology of Polymers and Composites (Bachelor's Degree in Mechanical and Materials Engineering)
- Biomaterials (Master's degree in Mechanical Engineering).

### **Research activities**

Author of more than 150 scientific publications including peer-reviewed journal articles, international or national conference presentations, national and international patents. Main research areas:

- Polymer hydrogels
- Stimuli-responsive polymeric materials
- Investigation of the thermomechanical behavior of polymers and polymer nanocomposites.

### **Selected papers**

- F. Bignotti, S. D'Onofrio. Surface modification of polyamide 12 angioplasty balloons by photochemical reaction with an aromatic azide, *Polym Adv Techol* 2019; 30: 51.
- S. Agnelli, F. Baldi, F. Bignotti, A. Salvadori, I. Peroni. Fracture characterization of hyperelastic polyacrylamide hydrogels, *Engin Fract Mech* 2018, 203: 54.
- A. Zenoni, F. Bignotti, A. Donzella, G. Donzella, M. Ferrari, S. Pandini, A. Andrighetto, M. Ballan, S. Corradetti, M. Manzolaro, A. Monetti, M. Rossignoli, D. Scarpa, D. Alloni, M. Prata, A. Salvini, F. Zelaschi. Radiation resistance of elastomeric O-rings in mixed neutron and gamma fields: Testing methodology and experimental results, *Rev Sci Instrum* 2017; 88: 113304.
- F. Bignotti, S. Agnelli, F. Baldi, L. Sartore, I. Peroni. Macroporous Polyacrylamide Hydrogels With Tailored Porosity and Mechanical Properties via Microphase Separation in the Presence of Hydroxyethylcellulose, *Polym Engin Sci* 2017, 57: 764.
- S. Pandini, F. Bignotti, F. Baldi, L. Sartore, G. Consolati, G. Panzarasa. Thermomechanical and Large Deformation Behaviors of Antiplasticized Epoxy Resins: Effect of Material Formulation and Network Architecture, *Polym Engin Sci* 2017, 57: 553.
- S. Pandini, F. Bignotti, F. Baldi, S. Passera. Network architecture and shape memory behavior of cold-worked epoxies, *J Intel Mater Syst Str* 2013; 24: 1583.
- A. Rahman, L. Sartore, F. Bignotti, L. Di Landro. Autonomic Self-Healing in Epoxidized Natural Rubber", *ACS Appl Mater Inter* 2013; 5: 1494.
- F. Bignotti, S. Borsacchi, R. De Santis, M. Geppi, M. Messori, U.P. Sudhakaran. Interrelation between preparation conditions, structure and mechanical reinforcement in isoprene rubber filled with in situ generated silica, *J Appl Polym Sci* 2012; 125 (S1 - Special Issue: Composites with Inorganic Fillers): 398.