

BISTAC Sophie Professor in Materials Chemistry
University of Haute Alsace Mulhouse France

CURSUS

From 2002	PROFESSOR in Material Chemistry Université de Haute Alsace, IUT de Mulhouse
2001	HABILITATION A DIRIGER DES RECHERCHES Université de Haute Alsace, Mulhouse
1993	ASSISTANT PROFESSOR in Material Chemistry Université de Haute Alsace, Mulhouse
1992	PHD in Physical Chemistry , Université de Haute Alsace, Mulhouse
1989	Engineer in Chemistry, Lyon – Master Degree in Macromolecular and Composites Materials, Lyon

RESEARCH ACTIVITIES

Physico-chemical properties of polymers.: thermal (crystallinity, relaxations) and rheological behaviors

Surface and interface properties : wetting, interfacial tension, adhesion, friction

Author of 70 publications in journals and books, 128 publications in proceedings and 56 oral communications

RELEVANT PUBLICATIONS

A. Galliano, **S. Bistac**, J. Schultz, Adhesion and friction of PDMS networks : molecular weight effect, Journal of Colloid and Interface Science, 265, 372-379 (2003)

T. Elzein, A. Galliano, **S. Bistac**, Friction of PDMS networks on metallic surfaces : resulting anisotropy and nanoorganization, Journal of Polymer Science, part B, Polymer Physics, 42, 2348-2353 (2004)

S. Bistac, A. Galliano, Nano and macro tribology of elastomers, Tribology Letters, 18 (1), 21-25 (2005)

S. Bistac, A. Galliano, Adhesion and friction properties of elastomers at macroscopic and nanoscopic scales, in Adhesion –Current Research and Application, ed. Wulff Possart, Wiley-VCH (2005)

A. Ghorbal, M.Schmitt, **S. Bistac**, Friction and nano-wear of polystyrene against hydrophobic and hydrophilic substrates, Journal of Polymer Science Part B: Polymer Physics,44, 2449-2454 (2006)

S. Bistac, Friction of elastomers against hydrophobic and hydrophilic surfaces, In Surfactants in Tribology, ed. G. Biresaw, K.L. Mittal, Taylor and Francis, New York, 237-247 (2008)

S. Bistac, A. Galliano, M. Schmitt, Nano-friction of polymers : the complex role of adhesion, Journal of Physics, Condensed Matter, 20 354015 (2008)

S. Bistac, M. Schmitt, Adhesion and friction properties of polymers at nanoscale : investigation by AFM, in "Applied Scanning Probe Methods" Vol. 12, 69-84, Springer, (2009)

K. Jradi, **S. Bistac**, M. Schmitt, G. Reiter, Oriented crystallisation of isotactic polystyrene in films prepared by friction transfer, Polymer 50, 3724-3729 (2009)

G. Reiter, C. Vasilev, K. Jradi, **S. Bistac**, M. Schmitt, Structuring the surface of crystallizable polymers with an AFM tip, "Scanning Probe Microscopy in Nanoscience and Nanotechnology - Nanoscience and Nanotechnology Series" Springer, Chapter 24,833-866 (2010)