

EUROMAT 2017/ Symposia Structure/Area F

F.6	Title: Bio-Inspired Materials: From structural materials towards multi-functional biomaterials.		
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	Summary		
	<p>Natural materials, tissues and structures, although built at ambient temperature with a quite limited selection of components, have evolved with time to a complexity and hierarchical structures, which overpasses most of the artificial materials and structures.</p> <p>Natural materials have adapted to various biological, physical and structural needs and have the ability to self-healing via various biological processes and to answer often-conflicting needs. They have been therefore a source of inspiration for engineers and searchers over the centuries. However, bio-inspiration is gaining more and more interest in the engineering fields and for biomedical applications.</p> <p>This symposium will explore design principles underlying biological materials and present and prospective examples of how these design elements can be translated into artificial materials and biomaterials. Both biological materials as a source of inspiration and current developments of bio-inspired architectures and multi-functional (bio)-materials and surfaces will be discussed.</p>		