

MS6: Fracture of Polymers

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In this proposed mini-symposium, we invite all researchers involved in fracture of polymer materials. An increased interest in understanding and modeling both fracture and fatigue of these materials has been observed in the scientific community during the last decade. Materials concerned are engineering polymers such as thermoplastics, thermosets, elastomers and blends, but also biopolymers. A large variety of topics can be addressed including:

- new computational methods,
- fracture of polymers at different scales, including micromechanical approaches,
- large strain fracture and fatigue for complex loading conditions,
- influence of time, relaxation and creep, dynamic fracture of viscoelastic and viscoplastic materials,
- theoretical and numerical strategies developed for complex constitutive equations of polymers,
- experimental techniques and observations in support of computational modeling,
- coupling with environment: degradation, ageing, thermal damage, ...

Although numerical methods are the main topic of the conference, both theoretical and experimental studies are welcome and encouraged.