



15th International Conference on Fracture

Atlanta, Georgia, USA, June 11-16, 2023

Symposium on Brittle Fracture: 100 years After Publication of Griffith's Theory

Organizers:

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There has been a long history of concern with the brittle fracturing of materials in connection with the need to understand and control the often sudden catastrophic failure with low energy absorption associated with this physical phenomenon. In view of the great technological importance of brittle fracture behavior of engineering structures ever since the late nineteenth century, much earlier attention focused on a qualitative analysis of the fracture process until A. A. Griffith bridged the gap between stress analysis and crack size in his seminal contribution published in 1921. Despite the rapidly increasing amount of research on continuum and micromechanics descriptions of the brittle fracture problem over the past years, it is widely recognized that Griffith's fundamental concept of energy conservation applied to stress analyses of cracks provided the principal impetus for developing the field of fracture mechanics.

To celebrate Griffith's contribution to modern fracture mechanics, the 15th International Conference on Fracture (ICF15) is soliciting papers for publication and presentation in the technical sessions of the ***Symposium on Brittle Fracture: 100 years After Publication of Griffith's Theory***. This symposium will focus on general topics associated with brittle fracture behavior of materials spanning from fundamental aspects, experimental characterization and temperature dependence of cleavage fracture stress to the development and application of conventional and novel procedures for cleavage fracture assessments, including (but not limited to) computational and probabilistic modeling at the micro and mesoscale levels. This symposium also seeks to bring together academics, industry researchers, and research organizations to collaboratively address these key research areas.

A journal special issue is planned to include selected contributions to the symposium. For planning purposes, prospective authors should express their interest by sending an email to Claudio Ruggieri (claudio.ruggieri@usp.br) or Laszlo Toth (laszlo.toth@bayzoltan.hu) by September 1, 2022, including tentative title, list of authors, and author affiliations. Submit full abstracts for this symposium by October 31, 2022 via the conference website at <https://www.icf15.org/>.