

## Special Issue

# Finite Element Modeling of Newly Developed Ceramic Materials

### Message from the Guest Editors

Ceramic materials are extensively employed in impact protection systems. The finite element method is generally applied for the strength calculation of such materials. As ceramics are a heterogeneous material, their characteristics significantly depend on both the characteristics of their components, and on the material structure as a whole. The modeling of pores in ceramic materials is realized as the removal of groups of finite elements. Pores are commonly modeled as spheres. In addition, ceramics grains are modeled as spherical elements. It is evident that such approaches do not enable a description of the real structure of ceramics to be obtained, particularly as a set of one or several phases and as a variety of pores in the homogeneous material of the remaining part of the ceramic plate. The contemporary finite element analysis technique can be applied to highly non-linear problems that involve complex geometries.

We welcome submissions that attend to the suggested topic 'Finite Element Modeling of Ceramic Materials', in order to represent the recent FEM studies that have had an impact on the development of novel ceramic materials.

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### Guest Editors

Prof. Dr. Manal Abdel-Baki

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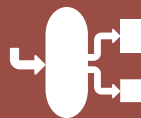
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### Deadline for manuscript submissions

closed (23 January 2024)



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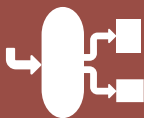
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