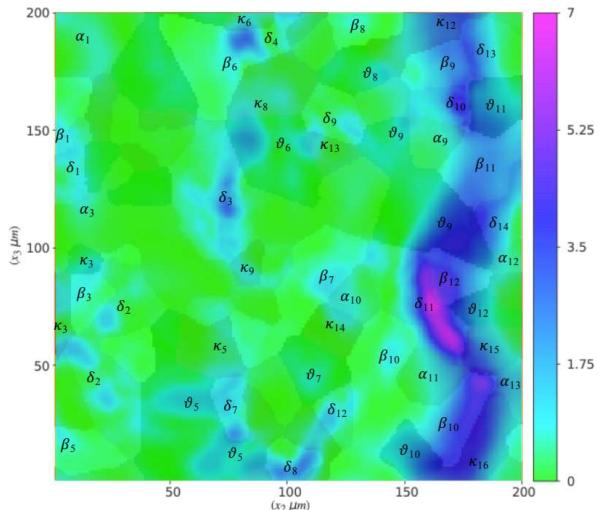


Estimating the properties of SOFC anodes through mechanical wave propagation

Hintergrund:

In the solid oxide fuel cell (SOFC) anode, the particle size and distribution of Ni crucially determines the electrochemical properties. Mechanical wave propagation reveals the underlying morphologies and geometries at the microscale. Simulation studies will be performed to study the relationship between the morphological distribution and the mechanical wave propagation/reflection.



Ihre Aufgabe:

- Perform simulations of mechanical wave propagation within the 3D SOFC anode microstructure.
 - Analyze the mechanical wave propagation/reflection under different working conditions of the SOFC anode.
 - Establish/extract relationships between mechanical wave propagation/reflection and the underlying microstructure.

Voraussetzungen:

Main background in continuum mechanics, especially dynamic mechanics.
Knowledge of C/C++ is an advantage.

Wir bieten:

- Intensive Betreuung
 - Moderne Workstations und Hochleistungsrechner als Arbeitsumgebung
 - Produktive und dynamische Atmosphäre in einem Team
 - Karriereperspektiven als Nachwuchswissenschaftlerin und Nachwuchswissenschaftler

Neugierig?

Kontaktieren Sie bitte: Dr. Daniel Schneider
daniel.schneider@kit.edu

Prof. Dr. Britta Nestler
britta.nestler@kit.edu