

## Geowissenschaftliches Kolloquium

## Fundamental links between deformation and chemical change

Donnerstag, 5. Dezember 2019 - 16.15 Uhr

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We have known since the late 1800s that deformation is linked to chemical change in rocks but the detailed



feedbacks involved are not well understood. There are many circumstances where interactions of stress and chemistry control large scale behaviour: for example diffusion creep, force of crystallisation, reactive fluid flow in deforming media, and phase change under stress. I will discuss how a single equation explains many phenomena. I will indicate how the equation can be used to make new predictions, some controversial and demanding further investigation.



**John Wheeler** studied at Cambridge then Leeds for PhD. He then wrote a structural modelling package which became an industry standard (MOVE). At Liverpool he researched in tectonics then helped establish Electron Backscatter Diffraction as a (now popular) geological tool. Recent research has encompassed mathematical models for deformation and chemical change, experiments to test them, and application to natural rocks.

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