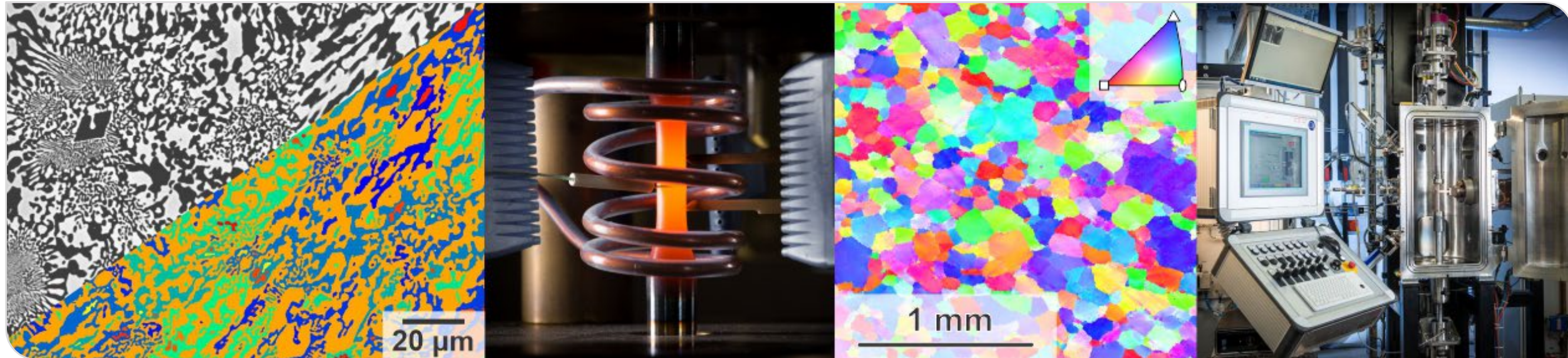


# Phase Transformations in Materials

Lecture for “Mechanical Engineering” and “Materials Science and Engineering”  
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# Literature

## ■ Phase Transformations (in alloys):

- D. A. Porter und K. E. Easterling: Phase Transformations in Metals and Alloys, 2<sup>nd</sup> ed., Berlin, Heidelberg: Springer-Science+Business Media (1992)

(is available in different editions from various publishers)

<https://services.bibliothek.kit.edu/primo/start.php?recordid=KITSRC12116022X>

or <https://services.bibliothek.kit.edu/primo/start.php?recordid=KITSRC27759961X>

- H. K. D. H. Bhadeshia and R. W. K. Honeycombe: Steels - Microstructure and Properties, Amsterdam, Boston, etc.: Elsevier, Butterworth-Heinemann (2006)

<https://services.bibliothek.kit.edu/primo/start.php?recordid=KITSRC518051110>

## ■ Diffusion:

- H. Mehrer: Diffusion in Solids, Berlin, Heidelberg: Springer-Verlag (2007)

<https://services.bibliothek.kit.edu/primo/start.php?recordid=KITSRC264903382>

## ■ Heat Transfer:

- J. P. Holman: Heat transfer, 5<sup>th</sup> ed., New York: McGraw-Hill (1981)

<https://services.bibliothek.kit.edu/primo/start.php?recordid=KITSRC042728525>

# Literature

## ■ Thermal Analysis:

- M. E. Brown: Handbook of thermal analysis and calorimetry, Amsterdam: Elsevier (1998)  
<https://services.bibliothek.kit.edu/primo/start.php?recordid=KITSRC072100729>

## ■ Interfaces:

- A. P. Sutton and R. W. Baluffi: Interfaces in crystalline materials, Oxford: Clarendon Press (2006)  
<https://services.bibliothek.kit.edu/primo/start.php?recordid=KITSRC256029245>

## ■ Misc:

- H. K. D. H. Bhadeshia: Bainite in steels, Leeds: Maney Publishing (2015)  
<https://services.bibliothek.kit.edu/primo/start.php?recordid=KITSRC452156254>
- H. K. D. H. Bhadeshia: Diffusional Formation of Ferrite in Iron and Its Alloys, Progress in Materials Science 29 (2015) 321-386  
[https://doi.org/10.1016/0079-6425\(85\)90004-0](https://doi.org/10.1016/0079-6425(85)90004-0)
- J. R. Rumble: CRC Handbook of Chemistry and Physics, 102<sup>nd</sup> ed., Boca Raton: CRC Press (2021)  
<https://services.bibliothek.kit.edu/primo/start.php?recordid=KITSRC1767137508>