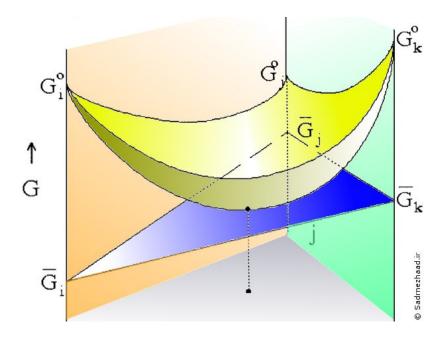
## Thermodynamics and Kinetics of Materials

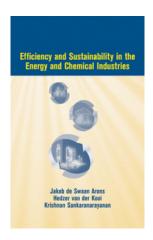
Spring 2010



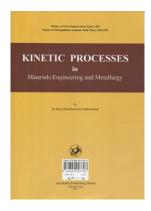
## **PhD Course**

## Titles:

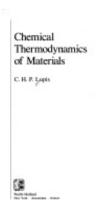
- Thermodynamic Laws and their applications in materials systems
- Solutions and alloys
- One, two and three components phase diagrams
- Mass action Law
- Fick's Laws and their applications
- Kinetic models
- Phase transformations
- Practical examples



J.S. Arons, H. Kooi and K. Sankaranarayanan, "Efficiency and Sustainability in the Energy and Chemic



S.K. Sadrnezhaad, "Kinetic Processes in Materials Engineering and Metallurgy", 3rd Edition, Amir Kab



C.H.P. Lupis, "Chemical Thermodynamics of Materials", Elsevier Science Ltd, (1983), ISBN 978-04440

**Instructions**