

Advanced Kinetics of Materials

MSc Course

Titles:

- Mass Action Law, Diffusion and Convection
- Shrinking Core Model
- Progressive Conversion Model
- Rate of Electrochemical Reactions
- Nucleation and Growth
- Mass Transfer between Phases
- Direct Reduction of Iron Ore
- Degassing from Molten Steel
- Practical Examples

References:

1. O. Levenspiel, "Chemical Reaction Engineering", 3rd Edition, Wiley, (1998), ISBN 978-0471254249.
2. S.K. Sadrezhaad, "Kinetic Processes in Materials Engineering and Metallurgy", 3rd Edition, Amir Kabir Publishing Corporation, Tehran, Iran, (2008), ISBN 1-72008-0.
3. Julian Szekeely, James W. Evans and Hong Yong Sohn "Gas-Solid Reactions", Academic Press, New York, (1976), ISBN ISBN 0-12-680850-3.

For more information please see [Persian](#) Version.