

Lecture Notes:

Transport Phenomena in Materials Engineering

Spring 2013

BSc Course

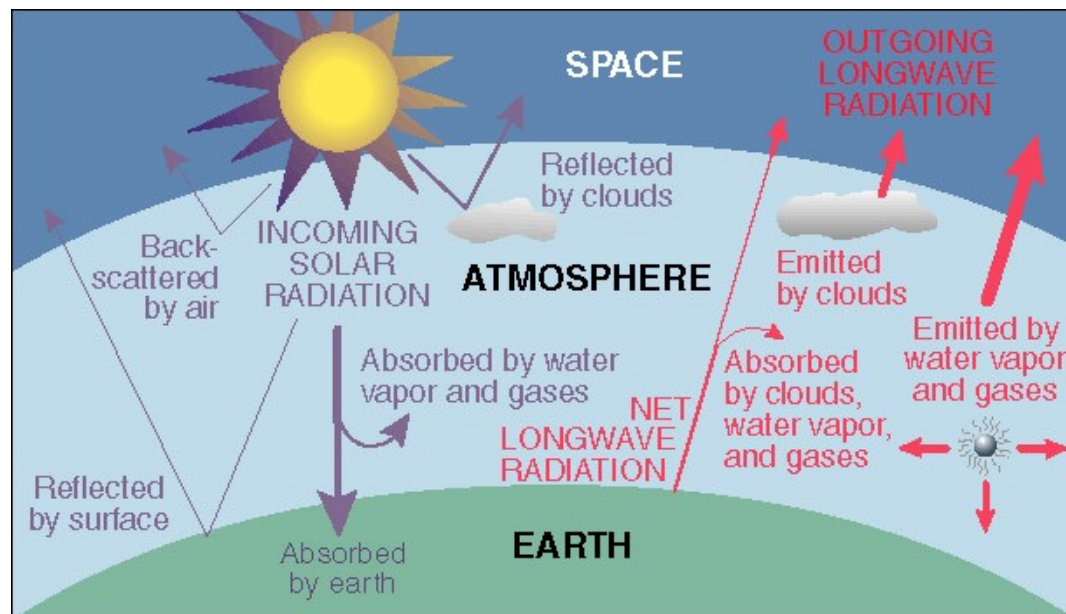
Titles:

- Conduction
- Convection
- Radiation
- Diffusion
- Viscosity
- Continuity Equation
- Velocity Distribution
- Navier Stokes Equation
- Applications of Transport Phenomena in Materials Systems

References:

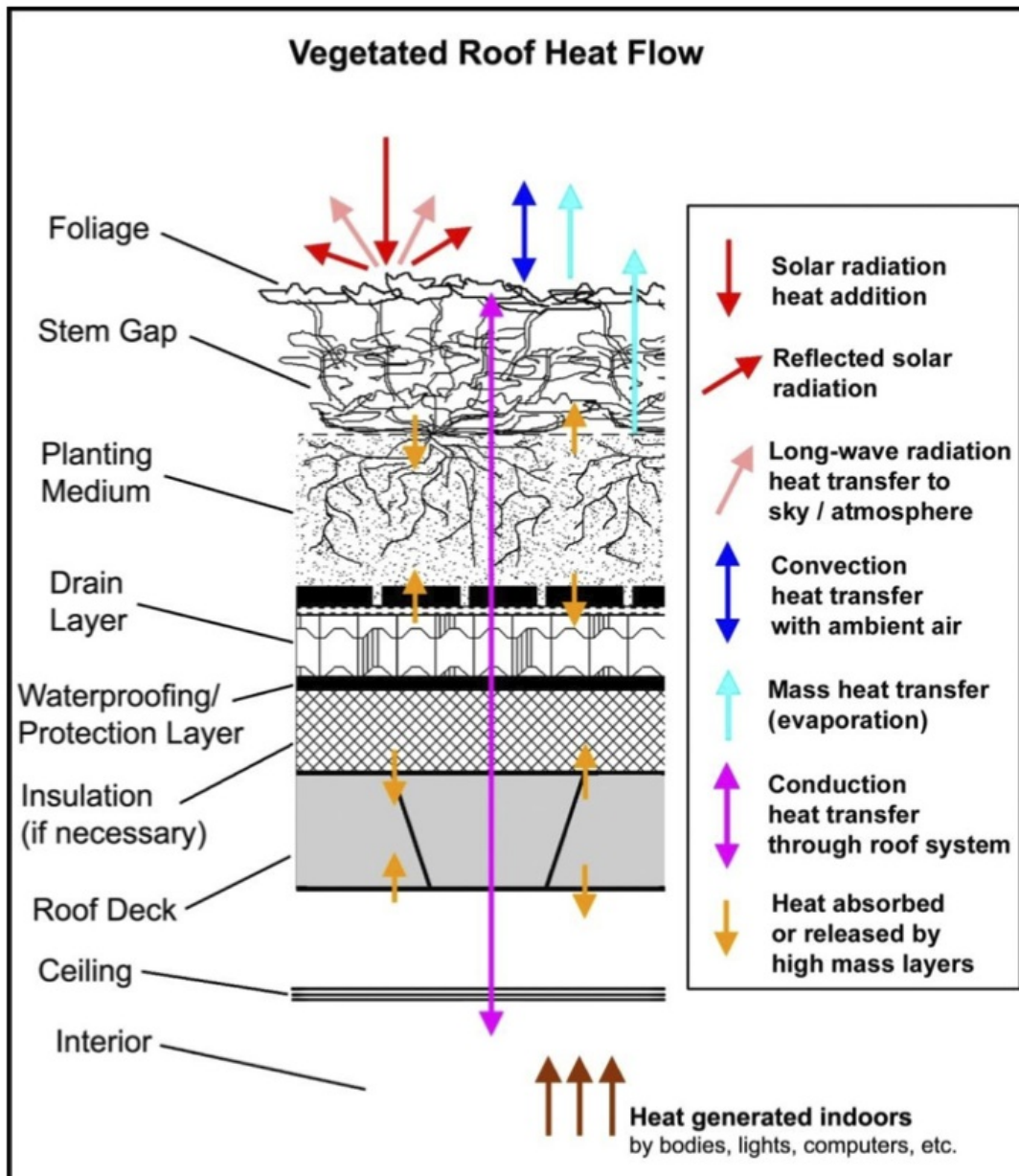
1. D.R. Gaskell, "Introduction to Transport Phenomena in Materials Engineering", Prentice Hall, (1991), ISBN 978-0023407208.
2. S.K. Sadrezhaad and A. Kermanpur, "Fuel and Energy", Sharif University Press, (2007), ISBN 964-6379-72-9.
3. D.R. Poirier and G. H. Geiger, "Transport Phenomena in Materials Processing", Minerals, Metals, & Materials Society, (1998), ISBN 978-0873392723.

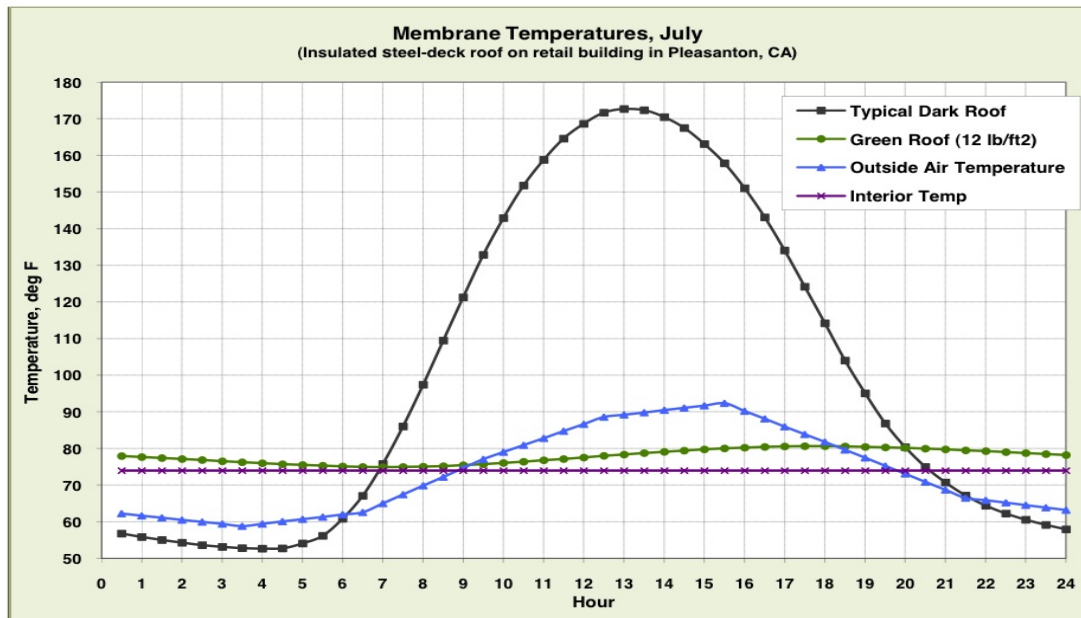
1- Radiation



Ref.: <http://zebu.uoregon.edu/disted/ph162/images/green35.jpg>

2- Green Roof





<http://www.greenroofs.com/content/energy-series-the-secret-and-how-to-use-it.htm>

- 1- Continuity
- 2- Critical Radius
- 3- Multiple Eqs.
- 4- Navier-Stokes