课程代码（Coursenumber）  
CHM 513  
  
课程对象（Audience）  
Primarily for Graduates  
  
开课教师（Teacher）  
  
学期（Semester）  
  
课程描述（Description））  
The first part of the course contains fundamental chemical concepts and basic ideas needed to calculate the difference between the bulk properties of matter and the properties of aggregates. The second part describes the tools needed to probe matter at the nanoscale level. The third part discusses examples of nanoscale materials (clusters, monolayers, fullerenes, biomolecules) and their applications.  
  
课时信息（Totalhours）  
  
教参信息（Textbookinfo）  
1 Chemistry: Foundations of Physical Science by Bill W. Tillery (Hardcover - Jan. 1996)  
ISBN-13: 978-0697231239  
2 PET Chemistry: The Driving Force in Molecular Imaging (Ernst Schering Foundation Symposium Proceedings) by P.A. Schubiger, L. Lehmann, and M. Friebe (Hardcover - Dec. 4, 2006)  
ISBN-13: 978-3540326236  
世界各地拥有馆藏的图书馆（OCLC）:203  
3 Photosensitizing Compounds: Their Chemistry, Biology and Clinical Use (Novartis Foundation Symposia) by CIBA Foundation Symposium (Hardcover - Jan. 3, 1990)  
ISBN-13: 978-0471923084  
4 Reaction-Transport Systems: Mesoscopic Foundations, Fronts, and Spatial Instabilities (Springer Series in Synergetics) by Vicenc Mendez, Sergei Fedotov, and Werner Horsthemke (Hardcover - July 18, 2010)  
ISBN-13: 978-3642114427  
世界各地拥有馆藏的图书馆（OCLC）:7  
5 Theories of Molecular Reaction Dynamics: The Microscopic Foundation of Chemical Kinetics (Oxford Graduate Texts) by Niels E. Henriksen and Flemming Y. Hansen (Hardcover - Apr. 7, 2008)  
ISBN-13: 978-0199203864  
世界各地拥有馆藏的图书馆（OCLC）:193  
6 Theoretical Foundations of Molecular Magnetism (Current Methods in Inorganic Chemistry) by Roman Boa (Hardcover - Oct. 13, 1999)  
ISBN-13: 978-0444502292  
7 Foundations of Colloid Science by Robert J. Hunter (Hardcover - Feb. 15, 2001)  
ISBN-13: 978-0198505020  
世界各地拥有馆藏的图书馆（OCLC）:239  
8 Epitaxy: Physical Foundation and Technical Implementation by Marian A. Herman, W. Richter, and Helmut Sitter (Hardcover - Sept. 20, 2004)  
ISBN-13: 978-3540678212  
世界各地拥有馆藏的图书馆（OCLC）:193  
9 Foundations of Crystallography with Computer Applications by Maureen M. Julian (Hardcover - Apr. 9, 2008)  
ISBN-13: 978-1420060751  
世界各地拥有馆藏的图书馆（OCLC）:112  
10 Organocatalysis (Ernst Schering Foundation Symposium Proceedings) by Manfred Reetz, Benjamin List, Stefan Jaroch, and Hilmar Weinmann (Hardcover - Aug. 6, 2008)  
ISBN-13: 978-3540734949  
世界各地拥有馆藏的图书馆（OCLC）:66  
11 Surface Science: Foundations of Catalysis and Nanoscience by Kurt W. Kolasinski (Paperback - June 3, 2008)  
ISBN-13: 978-0470033081  
世界各地拥有馆藏的图书馆（OCLC）:177  
12 Anomalous Transport: Foundations and Applications by Rainer Klages, G&#252;nter Radons, and Igor M. Sokolov (Hardcover - Sept. 9, 2008)  
ISBN-13: 978-3527407224  
世界各地拥有馆藏的图书馆（OCLC）:90