



FEDERAL UNIVERSITY OF CEARÁ
Provost Office of Research and Graduate Studies

COURSE PROGRAM

1. PROGRAM:		
Program	GRADUATE PROGRAM IN CHEMISTRY	
2. COMPONENT TYPE:		
Activity ()	Course (X)	Module ()
3. LEVEL:		
	Master's Degree (X)	Doctorate (X)
4. COMPONENT IDENTIFICATION:		
Name:	INTRODUCTION TO ADSORPTION - FUNDAMENTALS AND APPLICATIONS	
Code:	CEP9322	
Hours:	48 horas	
Credits:	03	
Optional course:	Yes (X)	No ()
Compulsory course:	Yes ()	No (X)
Area:	There are no mandatory concentration areas for the discipline.	
5. PROFESSOR:		
6. ABSTRACT:		
Studies and debates about the adsorption phenomenon.		
7. COURSE PROGRAM:		
1- Adsorption forces. 2 - Adsorbents. 3 - Adsorption equilibrium, models, heat of adsorption, Henry's law. 4 - Kinetics of adsorption, driving force, diffusion in macropores and micropores, dynamics in adsorption columns. 5 - Processes and industrial applications.		
8. EVALUATION PROCESS:		
9. BIBLIOGRAPHY:		
1. Ruthven, D.M. Principles of adsorption processes. Wiley, N.Y., 1984.		
2. Karger, J.; Ruthven, D.M. Diffusion in zeolites and other microporous solids. Wiley, N.Y., 1992.		
3. Hellmut G. Karge, Jens Weitkamp. Adsorption and Diffusion. Springer Nature, 2020.		
4. José Paulo MotaSvetlana Lyubchik. Recent Advances in Adsorption Processes for Environmental Protection and Security. Springer Nature, 2020.		

