

菱形石墨炔薄膜 He 分离特性的密度泛函理论研究

李桂霞¹ 姜永超^{1,*} 李 鹏¹ 潘 维² 李永平^{1,*}
刘云杰³

(¹青岛农业大学理学与信息科学学院, 山东 青岛 266109; ²青岛农业大学化学与药学院, 山东 青岛 266109; ³中国石油大学(华东)理学院, 山东 青岛 266580)

Helium Separation Performance of the Rhombic-Graphyne Monolayer Membrane: Density Functional Theory Calculations

LI Gui-Xia¹ JIANG Yong-Chao^{1,*} LI Peng¹ PAN Wei² LI Yong-Ping^{1,*}
LIU Yun-Jie³

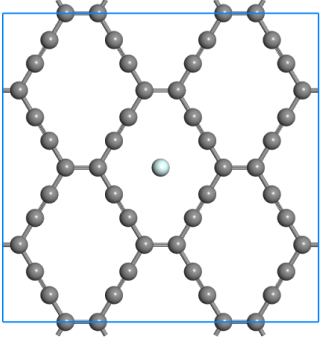
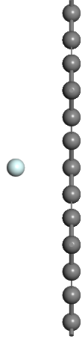
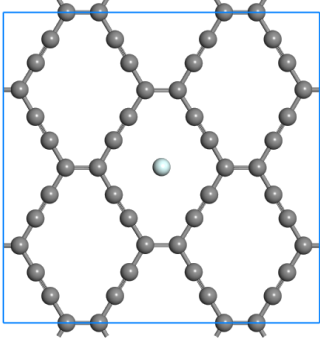
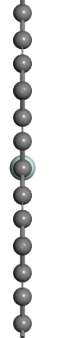
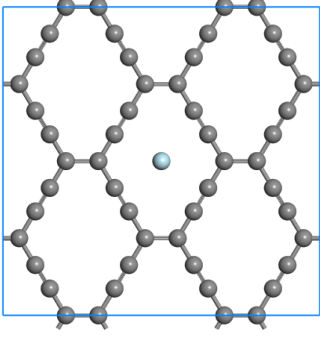

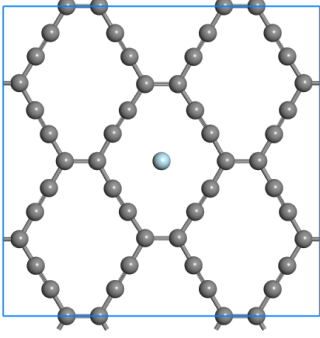
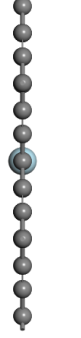
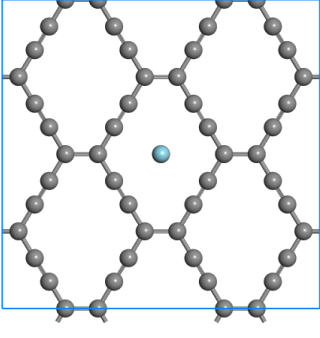

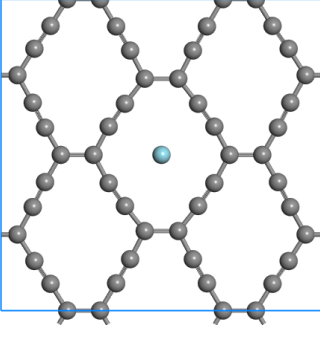
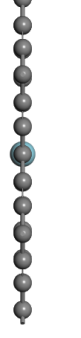
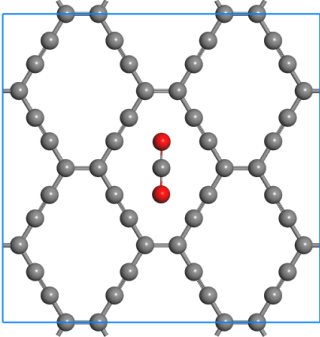
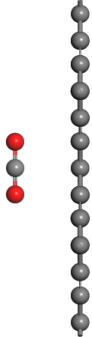
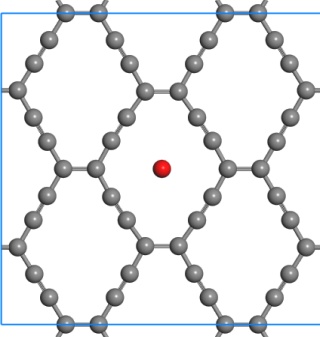
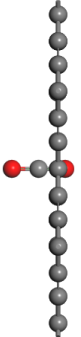
(¹College of Science and Information, Qingdao Agricultural University, Qingdao 266109, Shandong Province, P. R. China; ²College of Chemistry and Pharmaceutical Sciences, Qingdao Agricultural University, Qingdao 266109, Shandong Province, P. R. China; ³College of Science, China University of Petroleum, Qingdao 266580, Shandong Province, P. R. China)

*Corresponding authors. JIANG Yong-Chao, Email: qdycjiang@126.com; Tel: +86-15376618102.

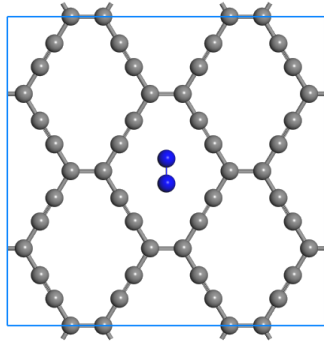
LI Yong-Ping, Email: qdyongpli@126.com; Tel: +86-15963252821.

表 S1 各气体分子穿透 R-GY 分离膜过程中的吸附态和过渡态

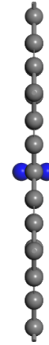
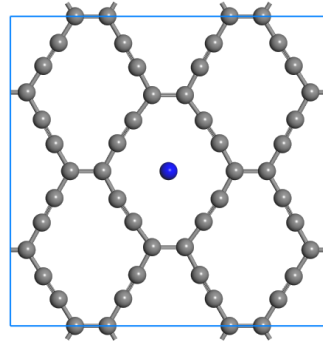
Table S1 Adsorption states and transition states for the studied gases passing through the R-GY membrane.

	Adsorption state		Transition state	
	top view	side view	top view	side view
He				
Ne				
Ar				
CO ₂				

N₂



N₂



CH₄

