

Supplementary Informations – SI

Deadlocks of adenine ribonucleotides synthesis: Evaluation of adsorption and condensation reactions into a zeolite micropore space

Francisco Rodrigues,^{a,b,*} Thomas Georgelin,^c Baptiste Rigaud,^d Guanzheng Zhuang,^a Maria Gardennia Fonseca,^e Valentin Valtchev^f, and Maguy Jaber^{a,*}

^a. Sorbonne University, CNRS UMR 8220, Laboratoire d'Archéologie Moléculaire et Structurale, 4 place Jussieu, F-75005 Paris, France.

^b. State University of Paraíba, UEPB, Department of Chemistry, Campina Grande, Paraíba, Brazil.

^c. Centre de Biophysique Moléculaire, CNRS, Rue Charles Sadron, 45000 Orléans, France.

^d. CNRS Institut des Matériaux de Paris Centre (FR2482), 4 place jussieu, 75005 Paris, France.

^e. Federal University of Paraíba, UFPB, Department of Chemistry, João Pessoa, Paraíba, Brazil.

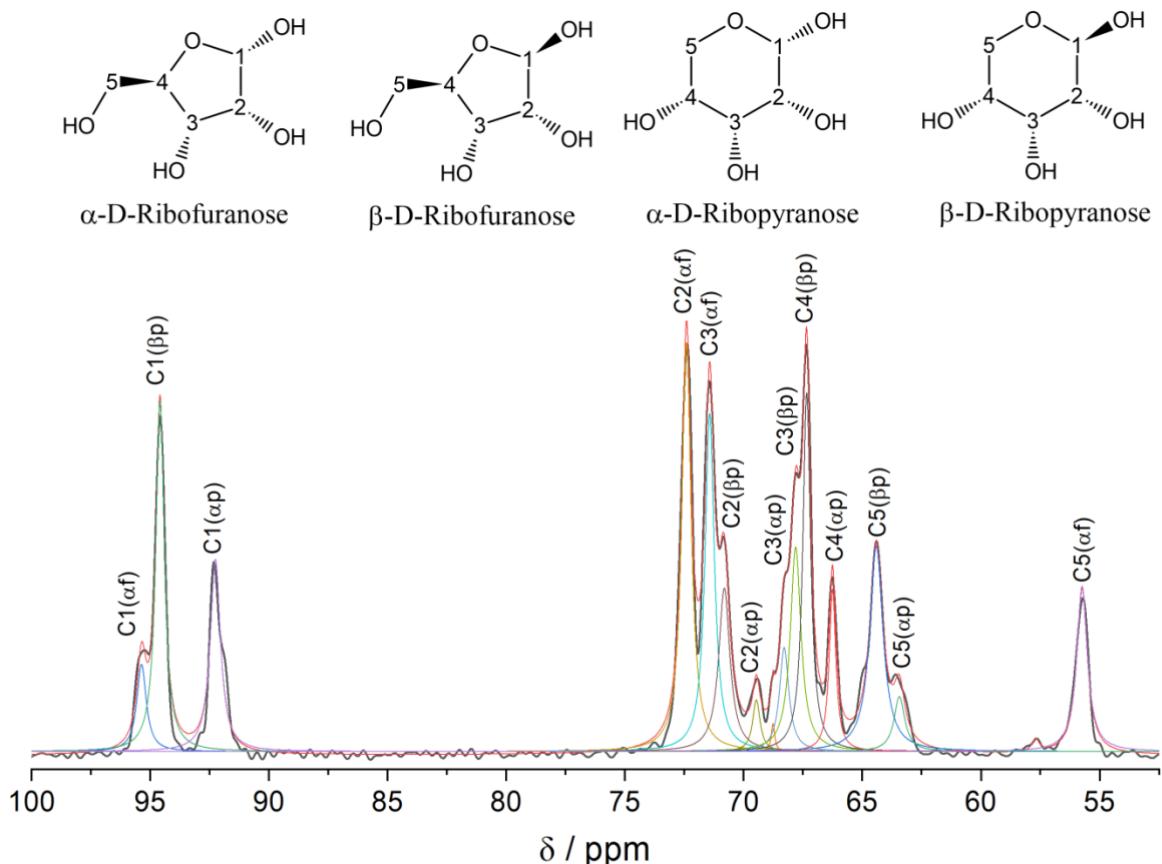
^f. Normandy University, Laboratoire Catalyse & Spectrochimie, ENSICAEN, 6 bl Maréchal Juin, 14050 Caen, France.

*Corresponding authors : francisco.rodrigues@servidor.uepb.edu.br; maguy.jaber@upmc.fr

Tab. SI-1. Phosphate distribution signals from Q⁰, Q¹ and Q² species of ³¹P NMR spectra of mordenite samples with inorganic monophosphates (P_i) and/or D-ribose (R) dried at 50 °C in air and/or activated at 150 °C under argon atmosphere. The relative percentage (%) of each contribution was calculated from the peak area of the deconvoluted signal.

Sample	Q ⁰ /δ (ppm)			Q ¹ /δ (ppm)				Q ² /δ (ppm)			
Pi/MOR-50	+0.3 (5.2%)	-3.2 (4.1%)	-6.3 (10.6%)	-8.8 (12.7%)	-11.4 (16.0%)	-13.8 (16.8%)	-16.1 (13.6%)	-18.4 (12.8%)	-21.5 (8.2%)		
Pi/MOR-150	-0.3 (4.1%)	-5.7 (7.4%)	-7.7 (7.5%)	-10.8 (9.9%)		-13.9 (15.2%)	-17.2 (16.2%)	-20.8 (19.8%)	-25.3 (18.0%)	-31.9 (1.0%)	-38.1 (1.0 %)
RPi/MOR-50	+0.7 (55.6%)	-6.1 (18.8%)	-6.3 (17.9%)	-9.6 (7.6%)							
RPi/MOR-150	+2.9 (2.5%)	+0.3 (7.9%)	-4.7 (6.7%)	-7.6 (17.2%)	-10.2 (13.1%)		-13.3 (19.1%)	-17.8 (12.9%)	-21.9 (17.7%)	-27.9 (2.8%)	

Fig. SI-1 ^{13}C CP-MAS NMR spectrum of bulk D-ribose



*f and p stand for furanose and piranose, respectively.