Electronic Supplementary Material (ESI) for RSC Advances.

Electronic Supplementary Information

Ultrafast Synthesis of AFX-Type Zeolite with Enhanced Activity in Selective Catalytic Reduction of NOx and Hydrothermal Stability

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1. Supplementary Figures

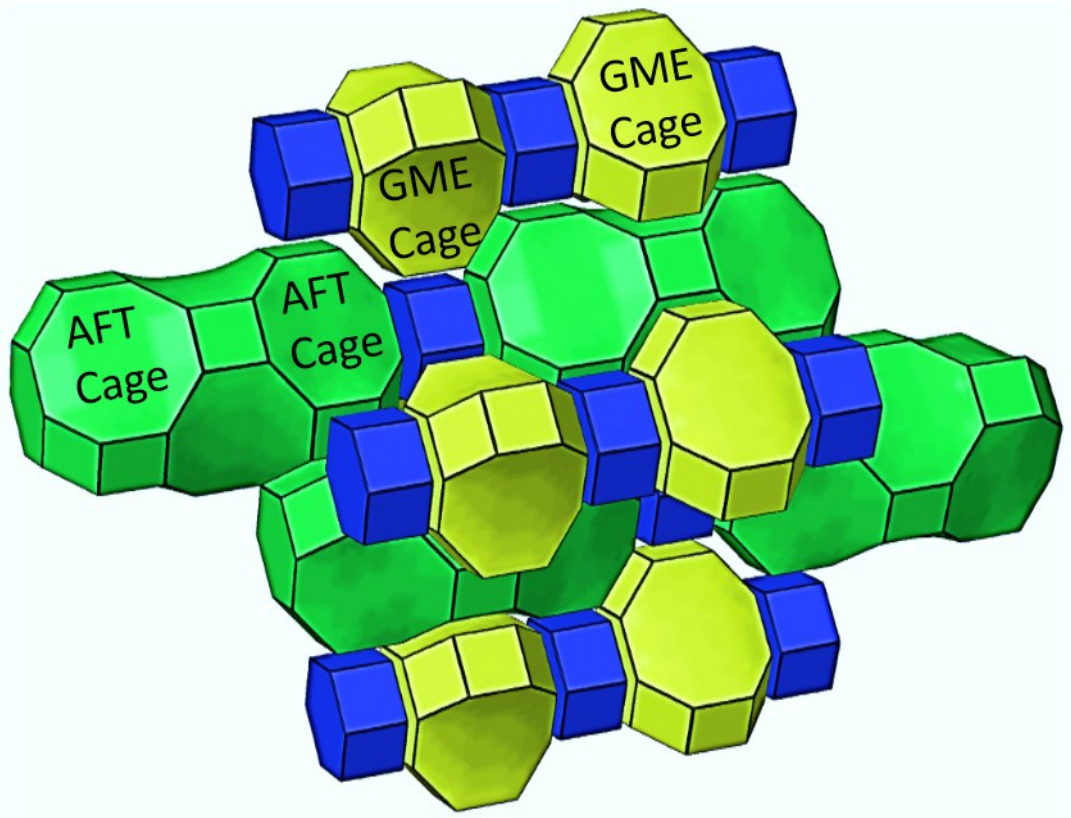

Figure S1. Representation of AFX structure (copyright © 2017 Structure Commission of the International Zeolite Association (IZA-SC)

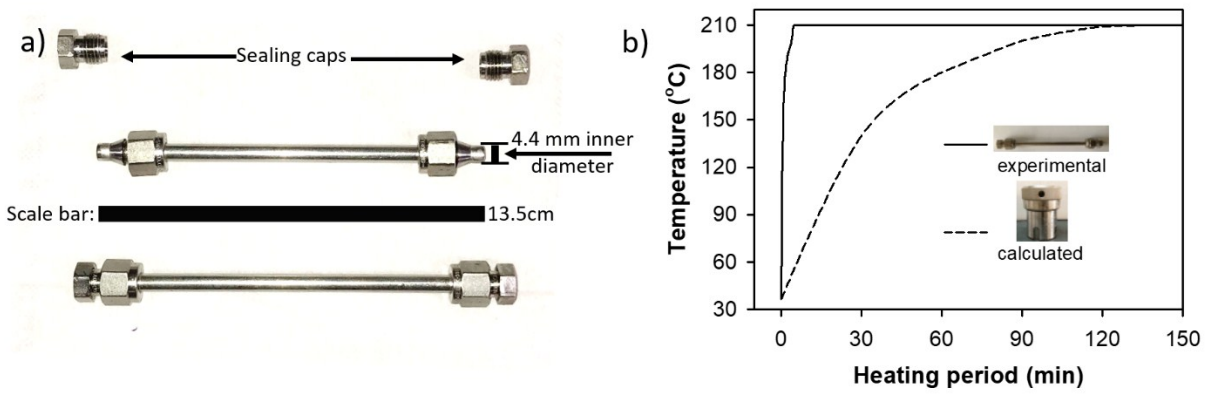

Figure S2. a) Photograph of the sealed pipe reactors with sealing caps; b) comparison of heating profiles in sealed pipe reactor and conventional autoclaves

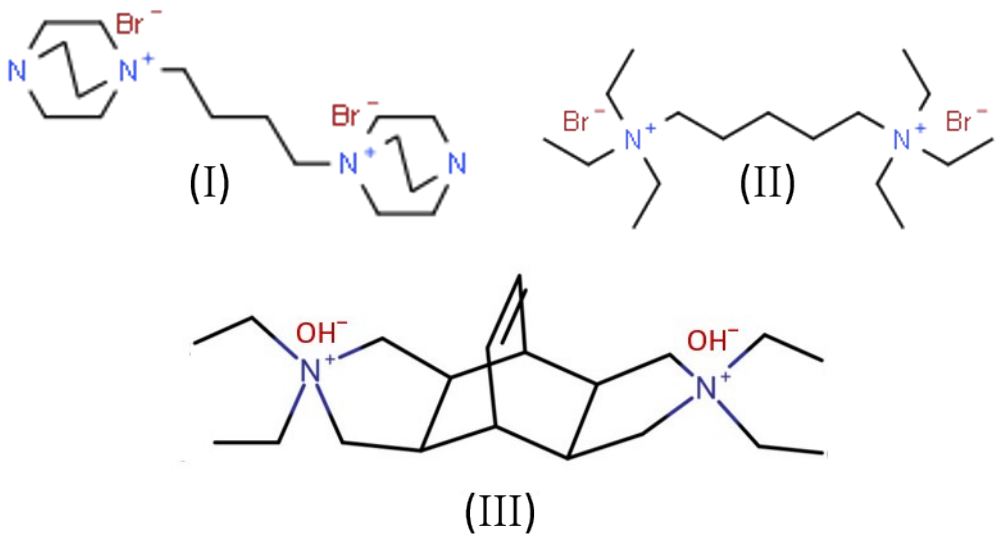

Figure S3. Molecular structures of OSDAs (I) DABCO; (II) Et6-Diquat-5; (III) TEBOP

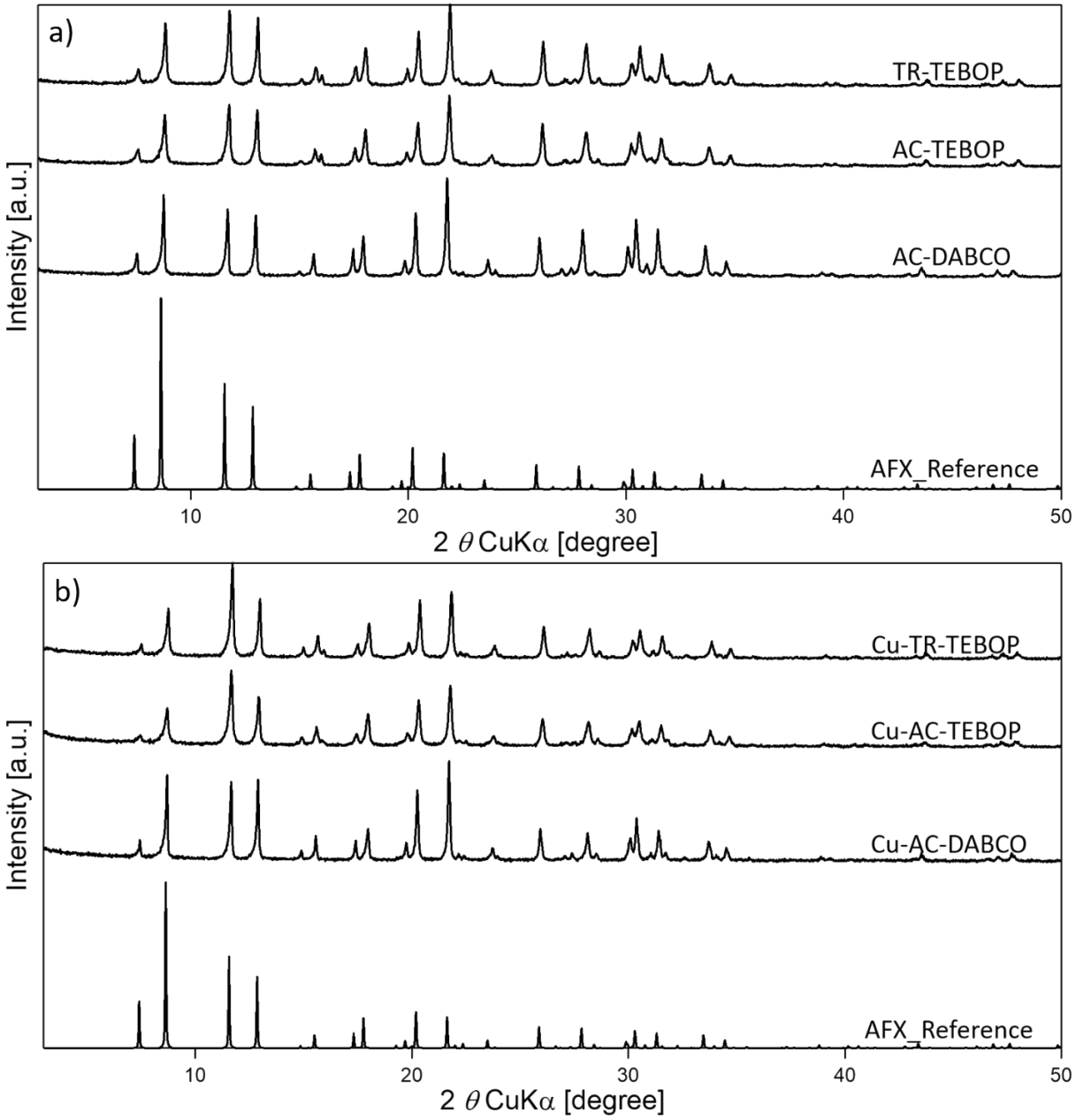

Figure S4. X-ray diffraction patterns of SSZ-16 samples a) calcined; b) ion-exchanged with copper in comparison to reference

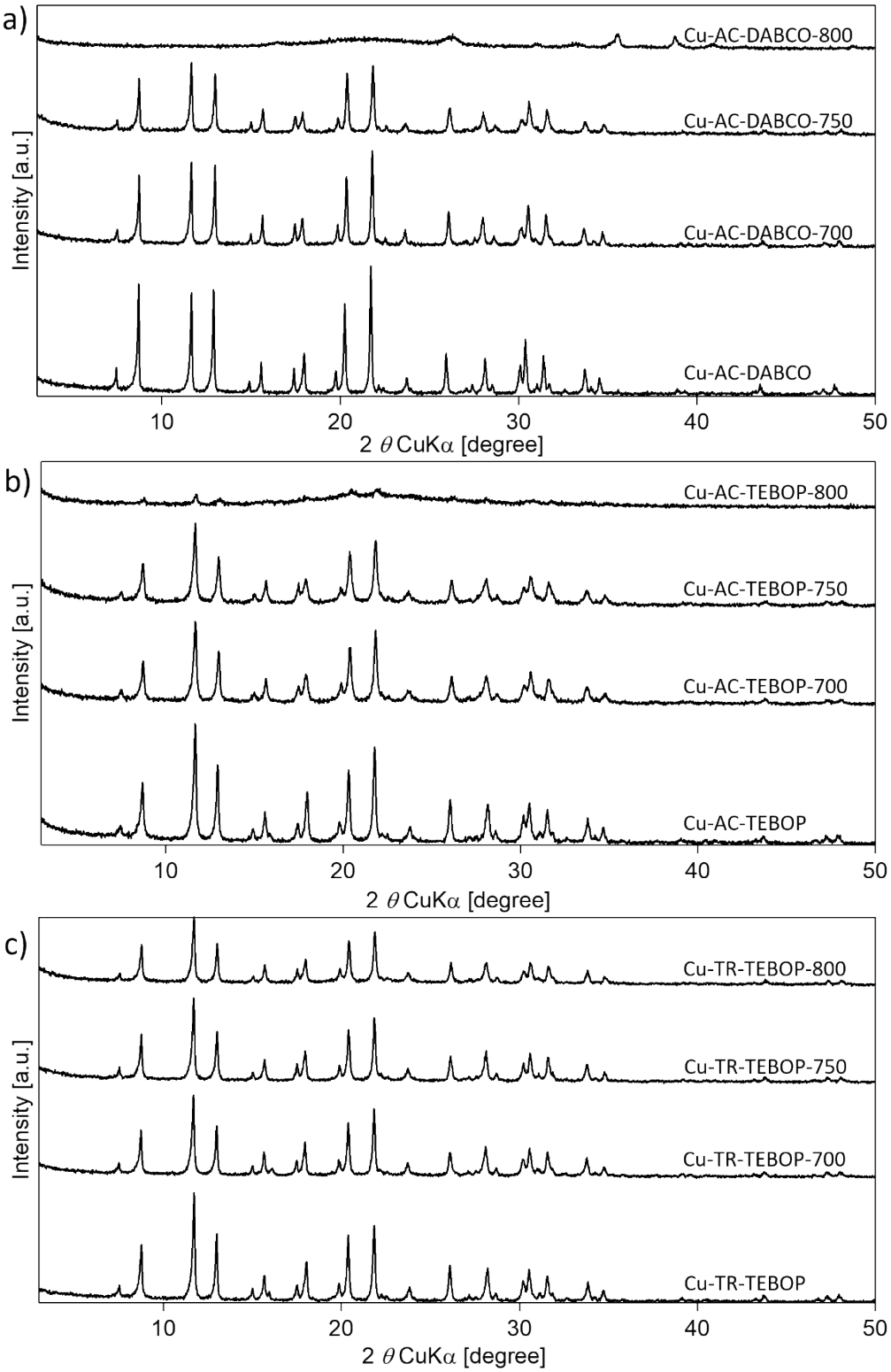

Figure S5. X-ray diffraction patterns of CuSSZ-16 samples before and after aging at different temperatures a) Cu-AC-DABCO series; b) Cu-AC-TEBOP series; c) Cu-SPR-TEBOP series

Table S1. Comparison of experimental conditions of previous ultrafast prepared zeolites with current study

Zeolite prepared	Experimental conditions				Framework type	Reference
	Aging		Synthesis			
	Time (h)	Temperature (°C)	Time (min)	Temperature (°C)		
$AlPO_4$-5	48	RT*	1	190	AFI	[35]
SSZ-13	48	85	10	210	CHA	[36]
Silicalite-1	48	RT*	10	210	MFI	[39]
Mordenite	0.5	RT*	10	210	MOR	[40]
Erionite	20	90	120	210	ERI	[41]
SSZ-16	2	RT*	120	210	AFX	This study

*RT – room temperature