Supporting Information

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Rings and Chains: Synthesis and Characterization of Polyferrocenylmethylene

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X-ray diffraction data

CCDC code	2049104	
Empirical formula	$C_{93}H_{120}Fe_6$	
Formula weight	1572.98	
Temperature	152(2) K	
Wavelength	0.71073 Å	
Crystal system	trigonal	
Space group	*R*-3c	
Unit cell dimensions	a = 22.7410(10) Å	α = 90°
	b = 22.7410(10) Å	β = 90°
	c = 12.4656(6) Å	γ = 120°
Volume	5582.9(6) $Å^3$	
Z	3	
Density (calculated)	1.404 mg m^{-3}	
Absorption coefficient	1.187 mm^{-1}	
F(000)	2502	
Crystal size	0.552 x 0.405 x 0.220 mm^3	
Theta range for data collection	1.791 to 36.163°	
Index ranges	-35<=h<=37, -37<=k<=37, -20<=l<=20	
Reflections collected	58994	
Independent reflections	5931 [R(int) = 0.0240]	
Completeness to theta = 25.242°	100.0%	
Absorption correction	semi-empirical from equivalents	
Max. and min. transmission	0.7471 and 0.6826	

Refinement method	full-matrix least-squares on F^2
Data / restraints / parameters	5931 / 13 / 203
Goodness-of-fit on F^2	1.070
Final R indices [I>2sigma(I)]	R1 = 0.0321, wR2 = 0.0959
R indices (all data)	R1 = 0.0380, wR2 = 0.1006
Extinction coefficient	n/a
Largest diff. peak and hole	0.793 and -0.834 e.$Å^{-3}$

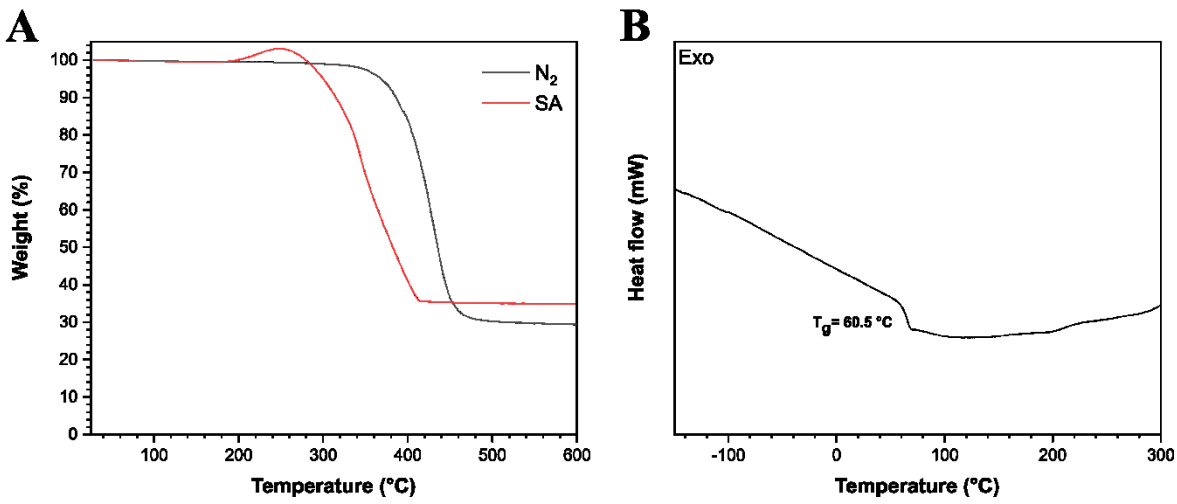

Figure S1. A: TGA curves of polyferrocenylmethylene (PFM) in an atmosphere of nitrogen (N_2, black curve) and synthetic air (SA, red curve) using a heating rate of 20 K min^{-1}, starting from 30 °C to 600 °C and B: DSC thermogram of PFM.

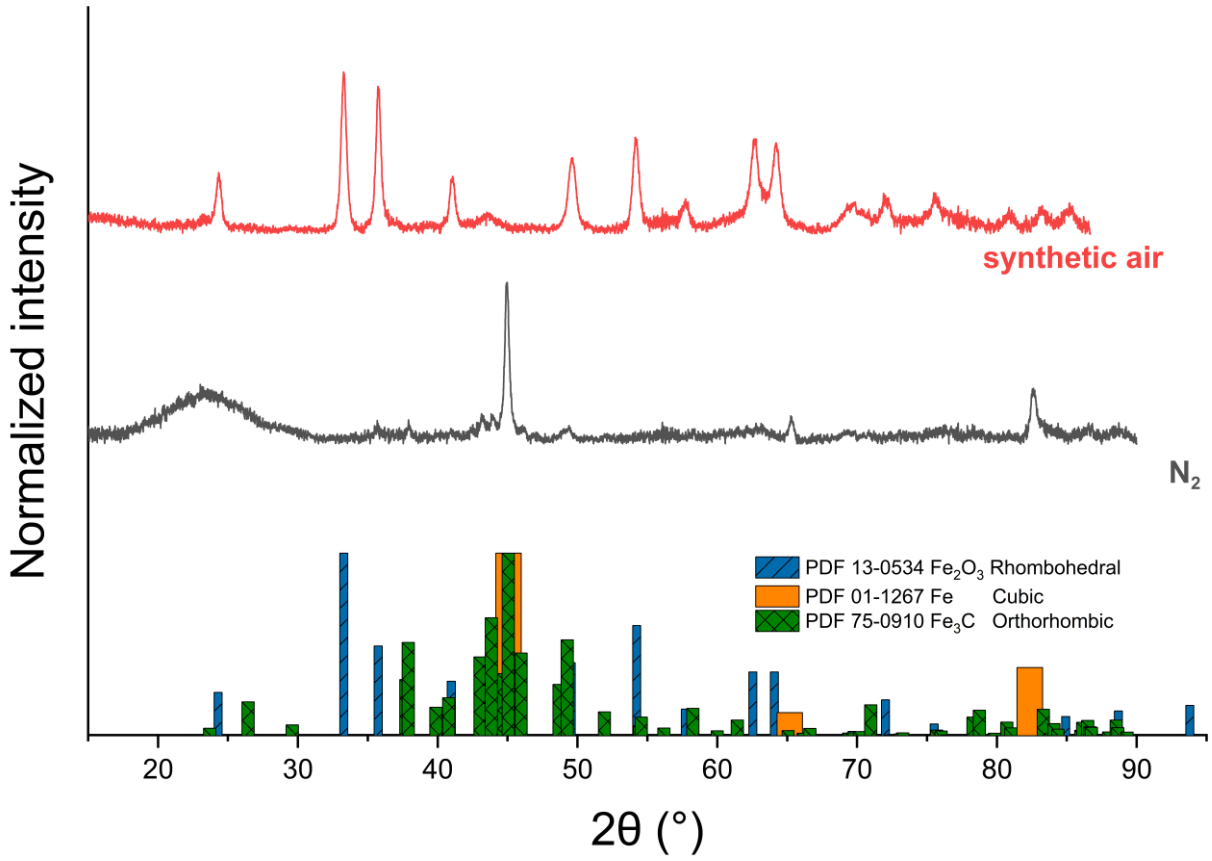

Figure S2. X-ray diffraction pattern of the residues after thermogravimetric analysis and corresponding reference data.