

Electronic Supplementary Information (ESI) for
Stoner enhancement from interstitial electrons in Y_2C toward a
spontaneous ferromagnetic electride

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S1. Bader analysis for each atomic site in Y₂C electride

Table S1. Localized magnetic moment calculated by Bader analysis

c (Å)	Local magnetic moment (μ_B)		
	X	Y	C
17.8	0.342	0.028	-0.014
18.0	0.342	0.028	-0.014
18.2	0.343	0.028	-0.015
18.4	0.344	0.029	-0.016
18.6	0.346	0.030	-0.016

S2. Calculated DOS profiles for various c -axis parameters

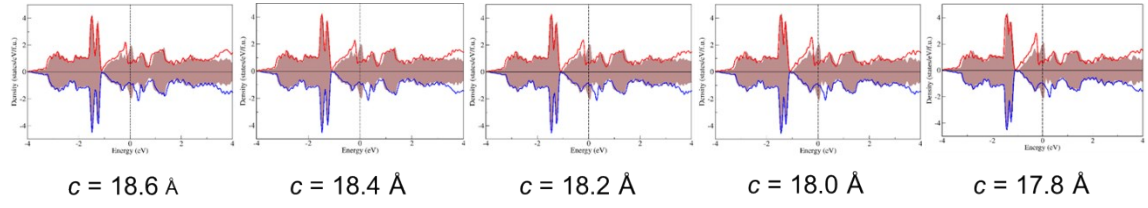


Figure S1. DOS profiles based on spin-polarized (solid-lines) and non-spin-polarized DFT (shaded region) with different c -axis parameters.

S3. Estimation of Stoner parameters

Table S2. Detailed parameters for evaluating Stoner criterion

c (Å)	Unit cell volume (Å ³)	Exchange- split (eV)	Local magnetic moment per X (μ_B)	Stoner parameter, I (eV)	$D(E_F)$ per X per spin (states/eV·f.u.)	$I \times D(E_F)$
17.8	201.45	0.5582	0.342	1.6322	2.0425	1.1913
18.0	203.71	0.5246	0.342	1.5339	1.9020	1.0682
18.2	205.97	0.5240	0.343	1.5277	1.8895	1.0223
18.4	208.24	0.5234	0.344	1.5215	1.8855	0.9961
18.6	210.50	0.4900	0.346	1.4162	1.7030	0.8540