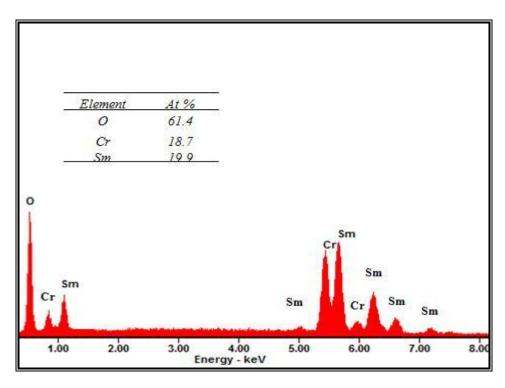
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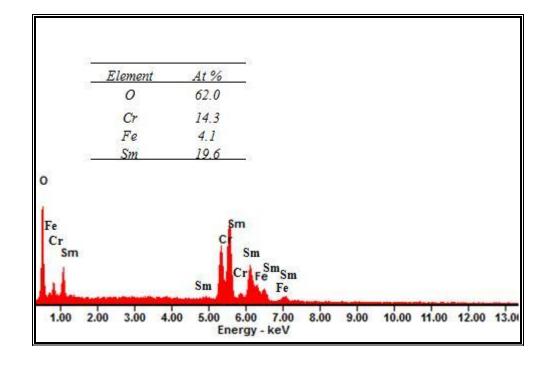
## Supporting information

## Intrinsic structural distortion and exchange interaction in $SmFe_{x}Cr_{1\text{-}x}O_{3}\,compounds$

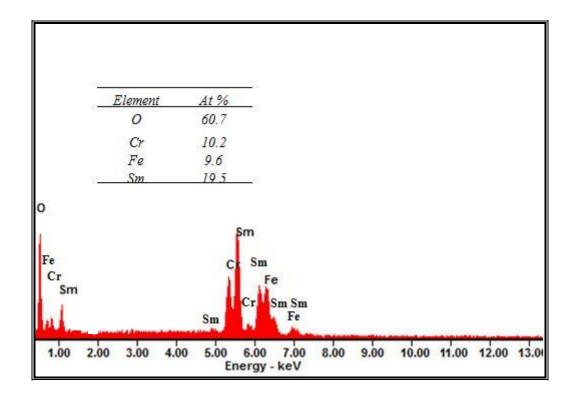
Zhongcheng Xiang, a Wenping Li, a Yimin Cuia,\*



**Figure S1.** The original EDX spectrum of the SmCrO<sub>3</sub> samples.



**Figure S2.** The original EDX spectrum of the SmFe<sub>0.2</sub>Cr<sub>0.8</sub>O<sub>3</sub> samples.



**Figure S3.** The original EDX spectrum of the SmFe<sub>0.5</sub>Cr<sub>0.5</sub>O<sub>3</sub> samples.

**Table S1** Comparison of magnetic parameters for SmCrO<sub>3</sub> samples with other works.

sample	Neel	$M_{eff}(\mu_B)$	Weiss	Ref.
	temperature		temperature	
	(K)		(K)	
SmCrO3	192	7.711	-613.4	[3]
SmCrO3	193	7.1	-1080	[38]
SmCrO3	197	-	-	[39]

SmCrO3	192	5.46	-670	[20]
SmCrO3	193	7.95	-1102	This work