**Electronic Supplementary Information** 

Hidden piezoelectric performances of BiFeO<sub>3</sub>-based textured ceramics

Yunjing Shi<sup>a</sup>, Xiaoyu Dong<sup>b</sup>, Bo Shen<sup>a</sup> and Jiwei Zhai<sup>a</sup>\*

<sup>a</sup>Key Laboratory of Advanced Civil Engineering Materials of Ministry of Education,

Functional Materials Research Laboratory, School of Materials Science &

Engineering, Tongji University, 4800 Caoan Road, Shanghai 201804, China

<sup>b</sup>Key Laboratory of Functional Materials and Devices for Special Environments of

CAS, Xinjiang Technical Institute of Physics & Chemistry of CAS, Xinjiang Key

Laboratory of Electronic Information Materials and Devices, 40–1 South Beijing

Road, Urumqi 830011, China

Prof. Jiwei Zhai

E-mail address: <a href="mailto:apzhai@tongji.edu.cn">apzhai@tongji.edu.cn</a>

S1

## **CONTENTS**

- Figure S1. Photograph of the quenched ceramics with Au electrode.
- Figure S2. XRD patterns and microstructure of the BT template.
- Figure S3. XRD patterns of the ceramics.
- Figure S4. Micro structures of the ceramics.
- **Figure S5.** The  $d_{33}$  value of quenched random samples.
- Figure S6. PE loops of quenched random samples.



Figure S1. Photograph of the quenched ceramics with Au electrode

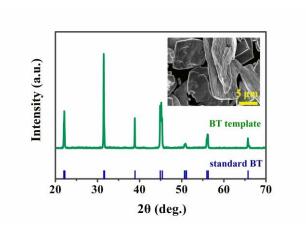


Figure S2. XRD patterns and microstructure of the BT template

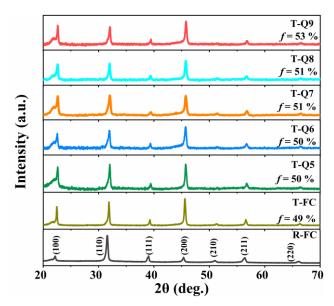


Figure S3. XRD patterns of the ceramics

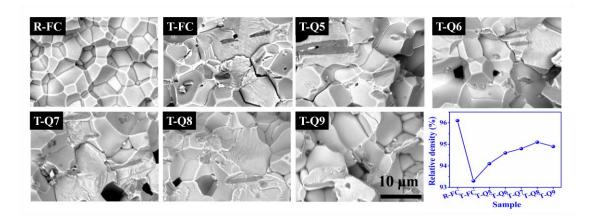


Figure S4. Micro structures of the ceramics

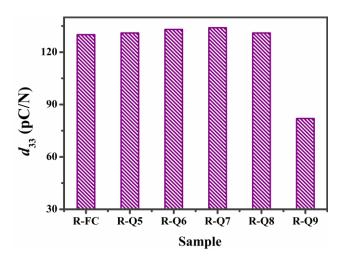
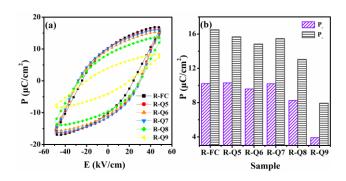


Figure S5. The  $d_{33}$  value of quenched random samples



**Figure S6**. PE loops of quenched random samples