## **Supporting Information**

Hollow Hafnium Oxide (HfO<sub>2</sub>) Fibers: Using an Effective Combination of Sol-Gel, Electrospinning, and Thermal Degradation Pathway

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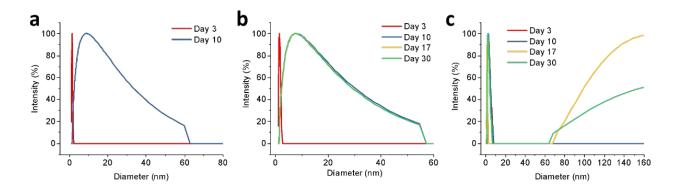
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## TABLE OF CONTENTS

1.	DLS experiments for different storage times with different sol-gel solvents	S-2
2.	HfO <sub>2</sub> thicknesses in different temperatures	S-3
3.	HfO <sub>2</sub> thicknesses at different molar ratios	S-4
4.	Hollow HfO <sub>2</sub> fibers prepared with different solvents	S-5
5.	XPS data of the HfO <sub>2</sub> coated PS fibers and HfO <sub>2</sub> hollow fibers	S-6



**Figure S1.** DLS experiments for different storage times with different sol-gel solvents: (a) ethanol at room temperature, (b) ethanol kept at 5 °C, and (c) PGME at room temperature.

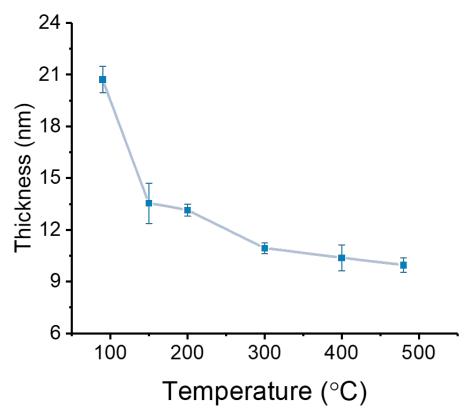
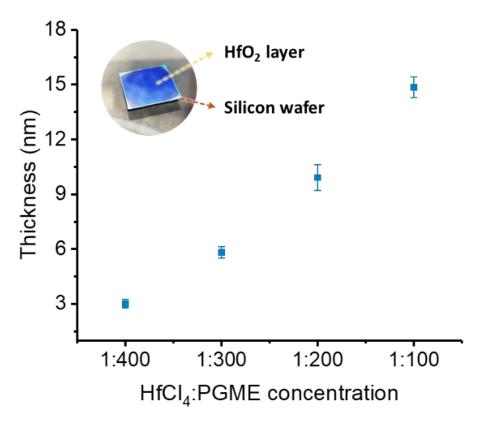
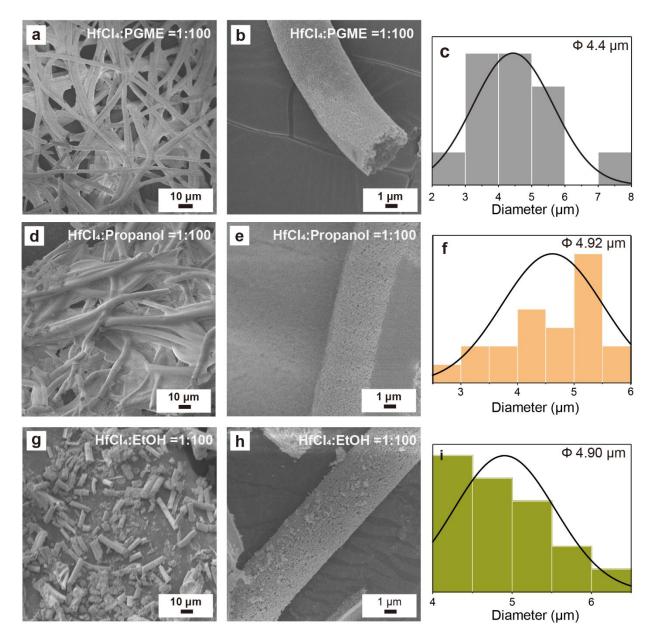


Figure S2.  $HfO_2$  thicknesses in different temperatures on silicon wafers.



**Figure S3.** HfO<sub>2</sub> thicknesses at different molar ratios on silicon wafers.



**Figure S4.** Hollow HfO<sub>2</sub> fibers prepared with different solvents. (a-c) PGME: (a,b) SEM images and (c) fiber diameter distribution. (d-f) Propanol: (d,e) SEM images and (f) fiber diameter distribution. (g-i) Ethanol: (g,h) SEM images and (i) fiber diameter distribution.

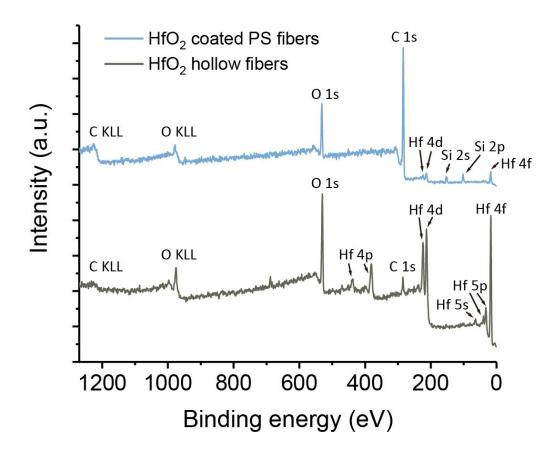


Figure S5. XPS data of the  $HfO_2$  coated PS fibers and  $HfO_2$  hollow fibers.