

Electronic Supplementary Material (ESI) for RSC Advances.
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Supplementary Information

Fine-Diameter Microwave-Absorbing SiC-based fiber

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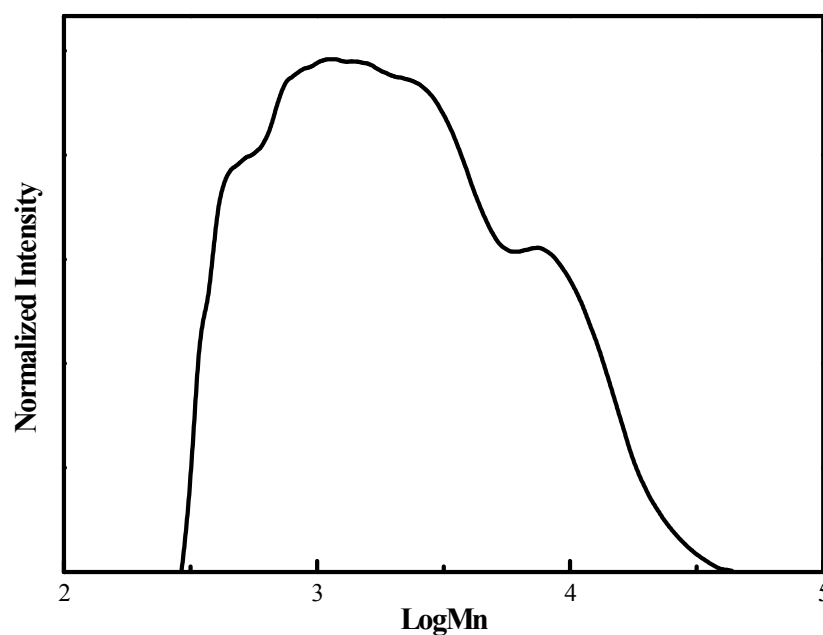


Figure S1. GPC trace curve of Si-C-Ti-B polymer.

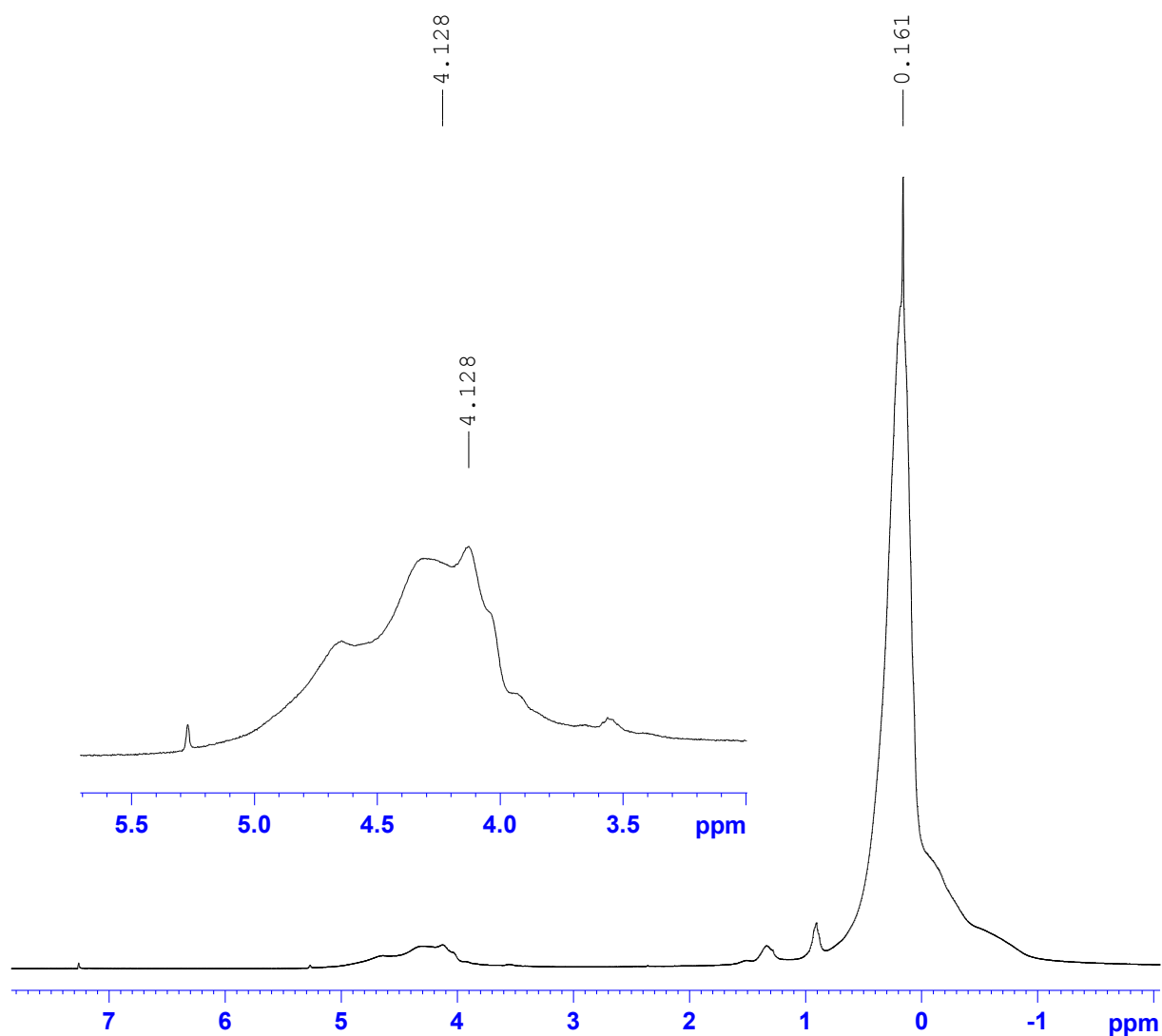


Figure S2. ^1H NMR spectrum of Si-C-Ti-B polymer in CDCl_3 at 300.13 MHz.

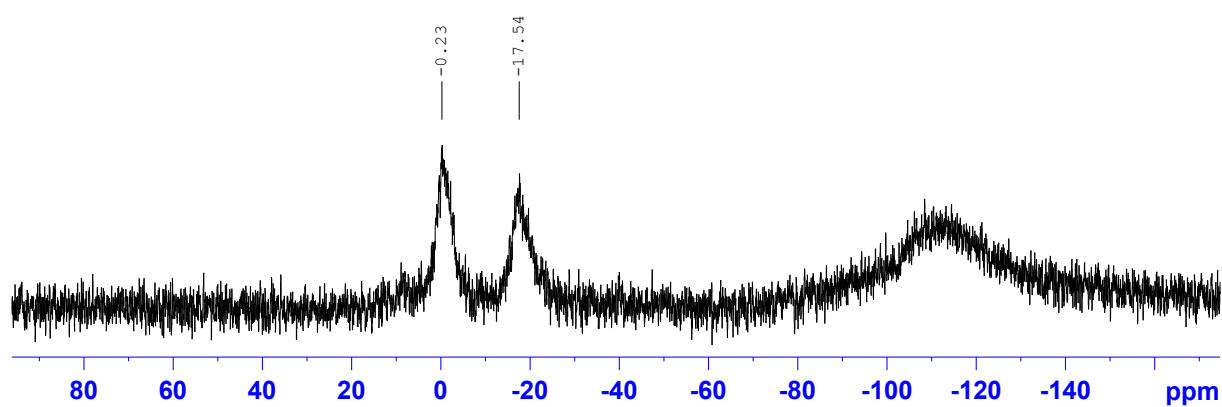


Figure S3. $^{29}\text{Si}\{^1\text{H}\}$ NMR spectrum of Si-C-Ti-B polymer in CDCl_3 at 59.63 MHz.

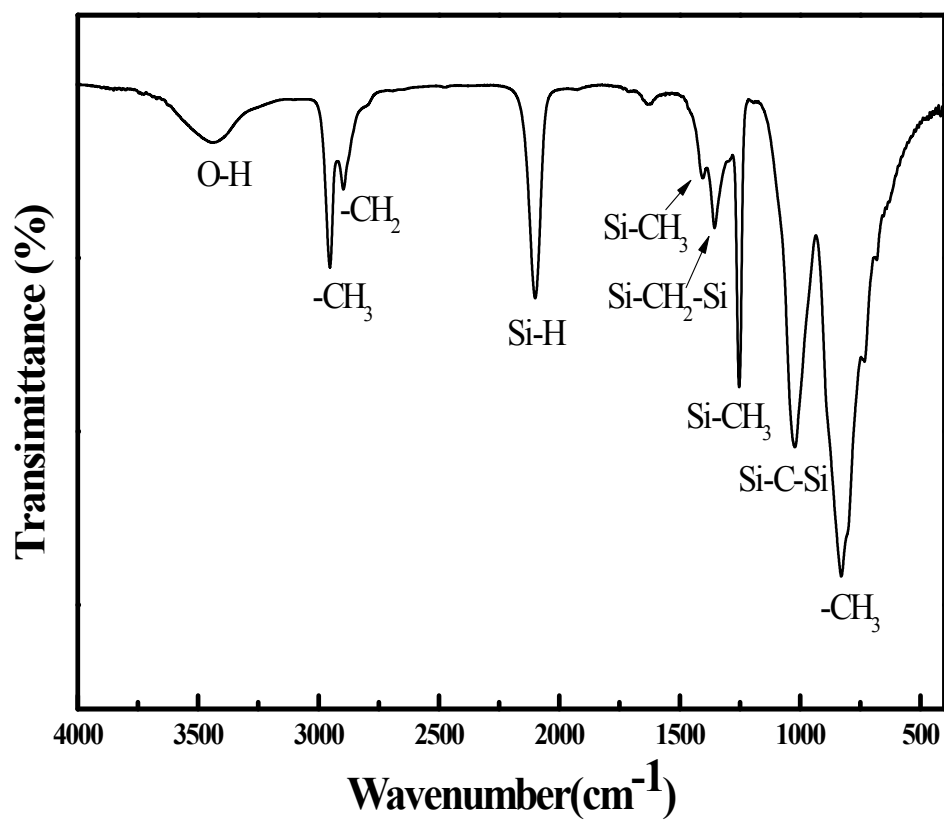


Figure S4. FT-IR spectrum of Si-C-Ti-B polymer.

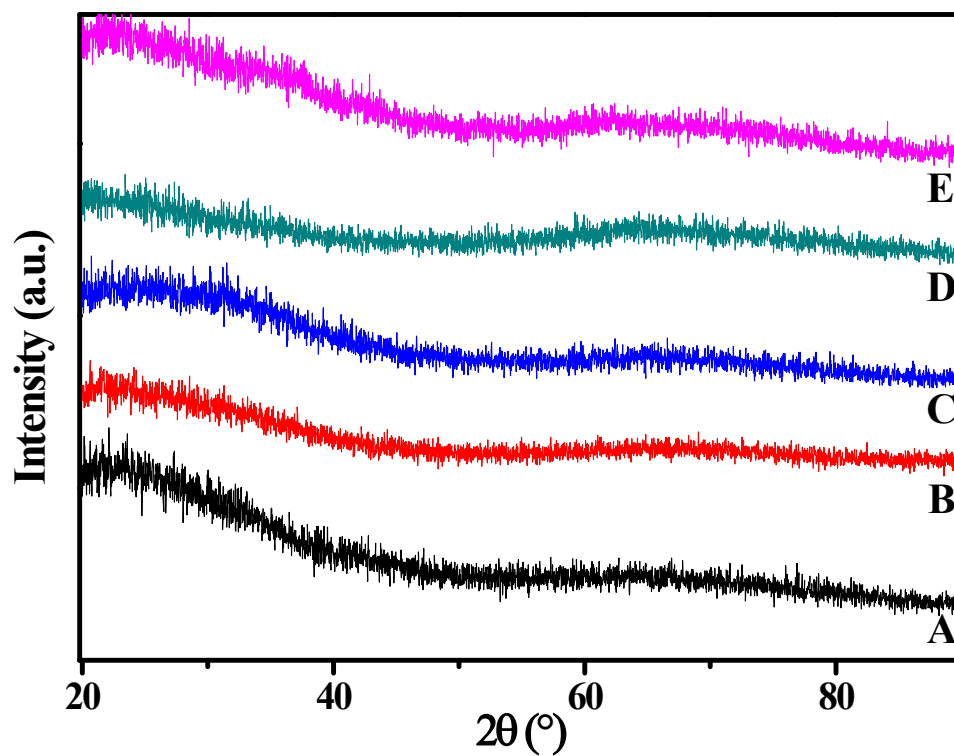


Figure S5. XRD spectra of the obtained ceramic fiber pyrolysed at (A) 900 °C, (B) 1000 °C, (C) 1100 °C, (D) 1200 °C, (E) 1300 °C.

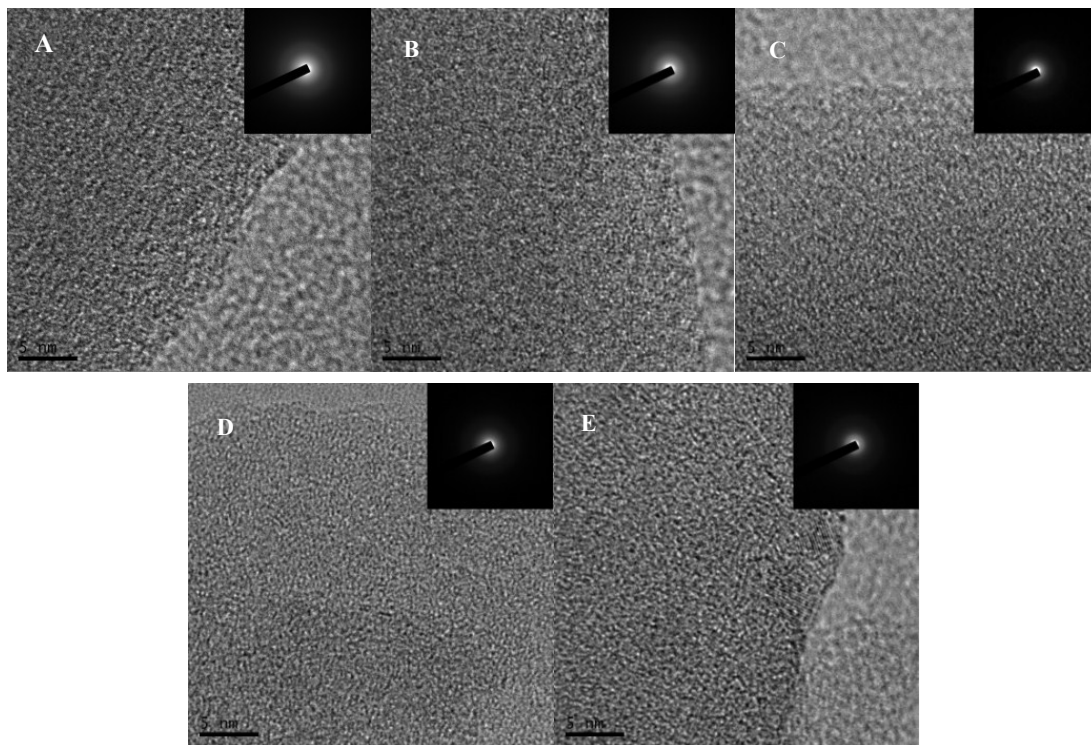


Figure S6. TEM Photos of the obtained ceramic fiber pyrolysed at (A) 900 °C, (B) 1000 °C, (C) 1100 °C, (D) 1200 °C, (E) 1300 °C.

Table S1. The chemical compositions of ceramic fiber pyrolysed at 900-1300 °C.

temperature (°C)	Si(%)	C(%)	O(%)	Ti(%)	B(%)
900	50.41	19.77	27.32	0.62	0.73
1000	51.15	21.99	24.62	1.38	0.52
1100	52.55	21.40	23.56	1.38	0.62
1200	53.42	17.30	26.73	1.45	0.73
1300	51.00	22.12	24.24	1.52	0.82