

# **Integration of antifouling and underwater sound absorption properties into PDMS/MWCNT/SiO<sub>2</sub> nanocomposites**

Pan Cao<sup>1\*</sup>, Huming Wang<sup>1</sup>, Mingyi Zhu<sup>1</sup>, Yifeng Fu<sup>2\*</sup>, Chengqing Yuan<sup>3,4\*</sup>

<sup>1</sup>College of Mechanical Engineering, Yangzhou University, Yangzhou 225127, China

<sup>2</sup>School of Automobile and Traffic Engineering, Jiangsu University, Zhenjiang 212013, China

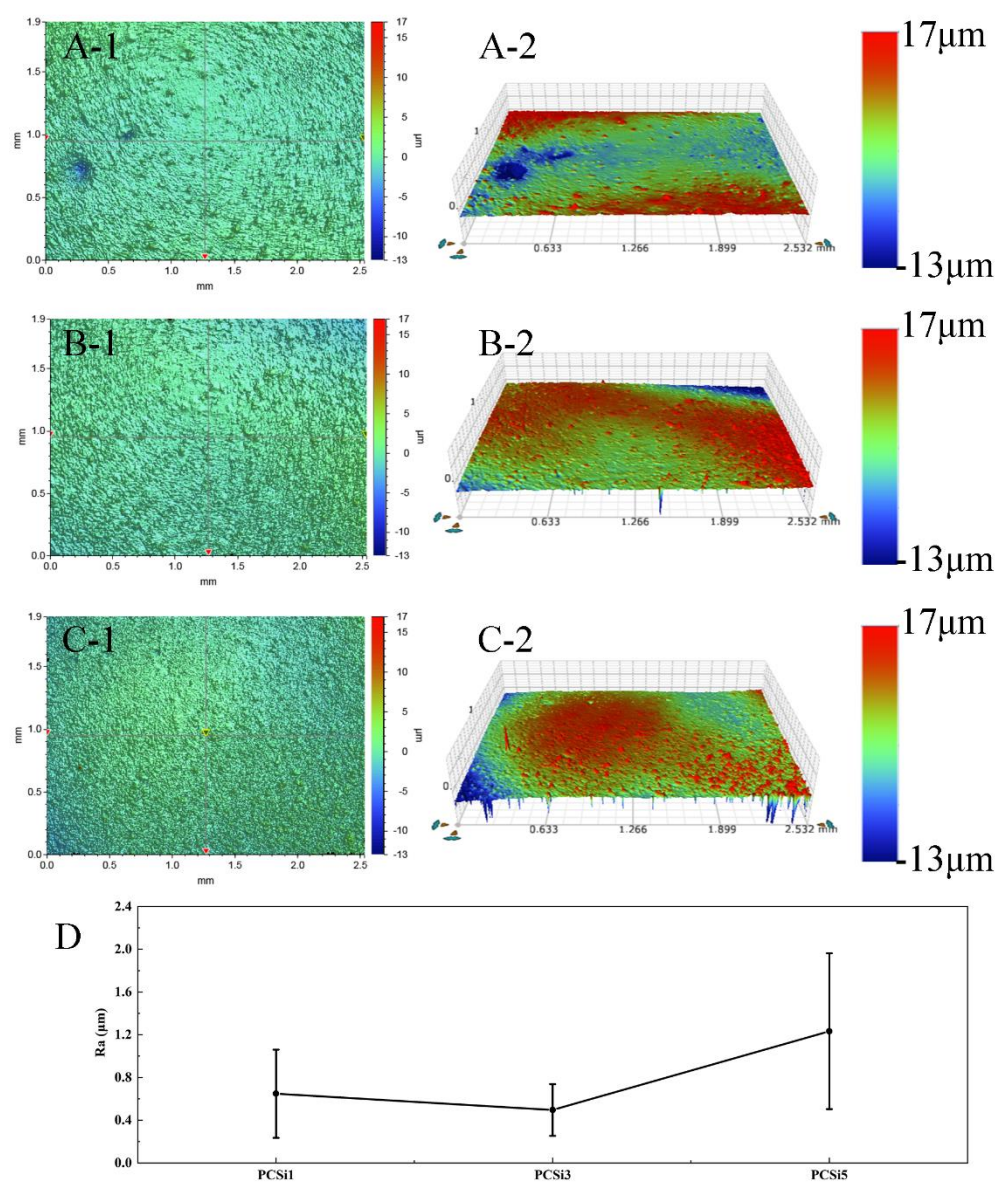
<sup>3</sup>National Engineering Research Center for Water Transportation Safety, Reliability Engineering Institute, Wuhan University of Technology, Wuhan 430063, China

<sup>4</sup>School of Transportation and Logistics Engineering, Wuhan University of Technology, Wuhan 430063, China

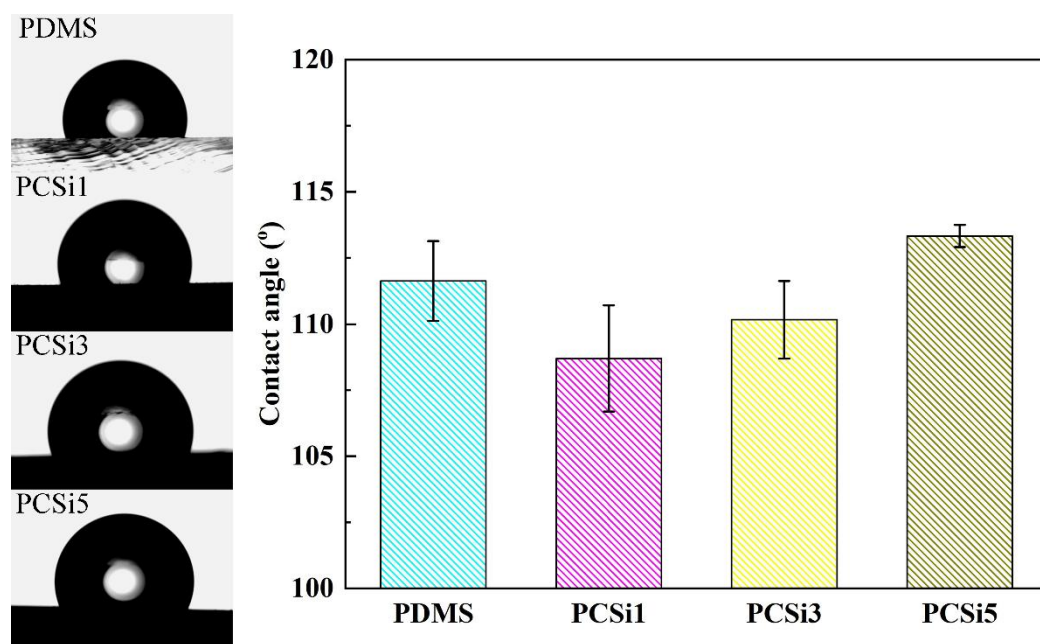
**Corresponding Authors:** Pan Cao, E-mail: caopan@yzu.edu.cn

Yifeng Fu, E-mail: fu\_yifeng@163.com; Chengqing Yuan, Email: ycq@whut.edu.cn

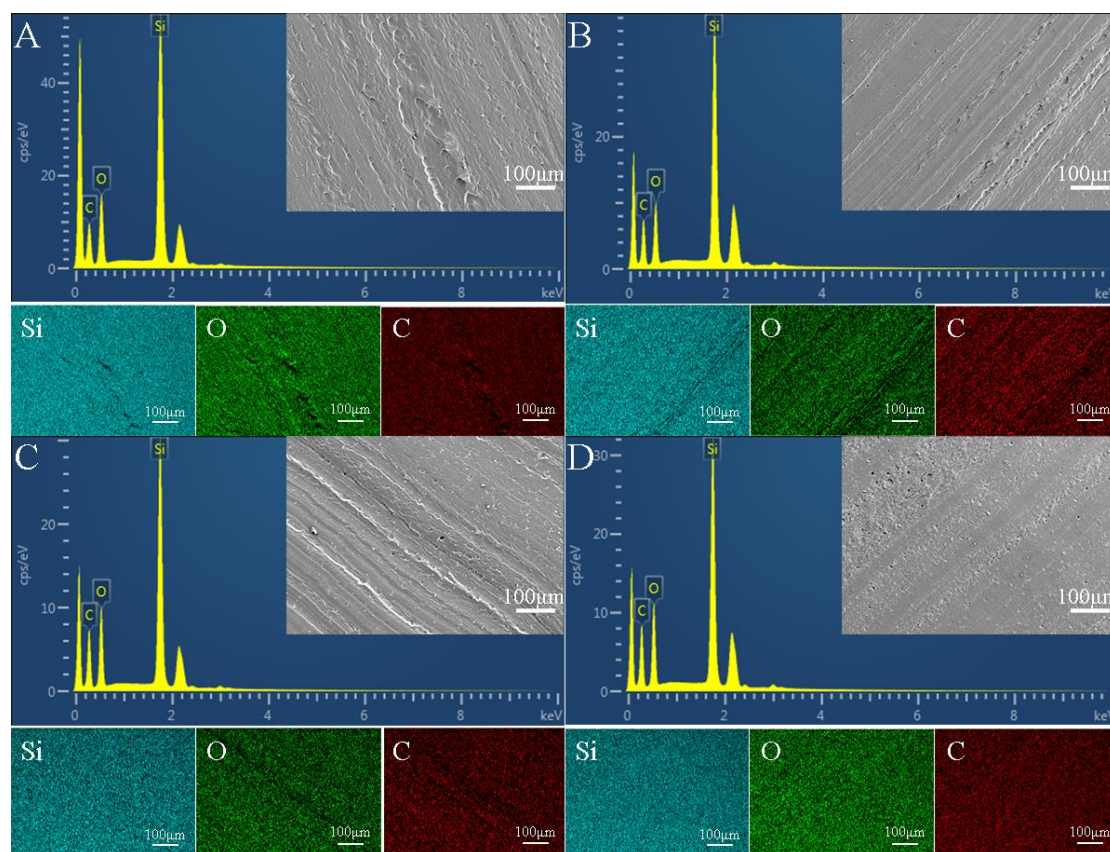
**Supplementary information**



**Figure S1.** A-C: Surface profile of PCSi1, PCSi3, PCSi5. D: Surface roughness  $R_a$ .



**Figure S2.** Contact angles of surface of different samples.



**Figure S3.** EDS analysis of PDMS (A), PCSi1 (B), PCSi3 (C), PCSi5 (D).

**Table S1.** The contents of different elements collected by EDS

<b>Samples</b>	<b>C (wt%)</b>	<b>O (wt%)</b>	<b>Si (wt%)</b>
<b>PDMS</b>	34.36	18.14	47.50
<b>PCSi1</b>	36.22	21.57	42.21
<b>PCSi3</b>	36.55	22.36	41.09
<b>PCSi5</b>	33.04	22.06	44.90