

## *Supplementary materials for:*

### **Effect of mineral filler additives on flammability, processing and use of silicone-based ceramifiable composites**

Rafał Anyszka<sup>1,5</sup> • Dariusz M. Bieliński<sup>1</sup> • Zbigniew Pędzich<sup>2</sup> • Grzegorz Parys<sup>3</sup> • Przemysław Rybiński<sup>4</sup> • Magdalena Zarzecka – Napierała<sup>2</sup> • Mateusz Imiela<sup>1</sup> • Tomasz Gozdek<sup>1</sup> • Mariusz Siciński<sup>1</sup> • Michał Okraska<sup>1</sup> • Magdalena Ziąbka<sup>2</sup> • Magdalena Szumera<sup>2</sup>

<sup>1</sup> Lodz University of Technology, Faculty of Chemistry, Institute of Polymer & Dye Technology, Łódź, Poland

<sup>2</sup> AGH – University of Science & Technology, Faculty of Material Science & Ceramics, Department of Ceramics and Refractory Materials, Kraków, Poland

<sup>3</sup> Institute for Engineering of Polymer Materials & Dyes, Division of Elastomers & Rubber Technology, Piastów, Poland

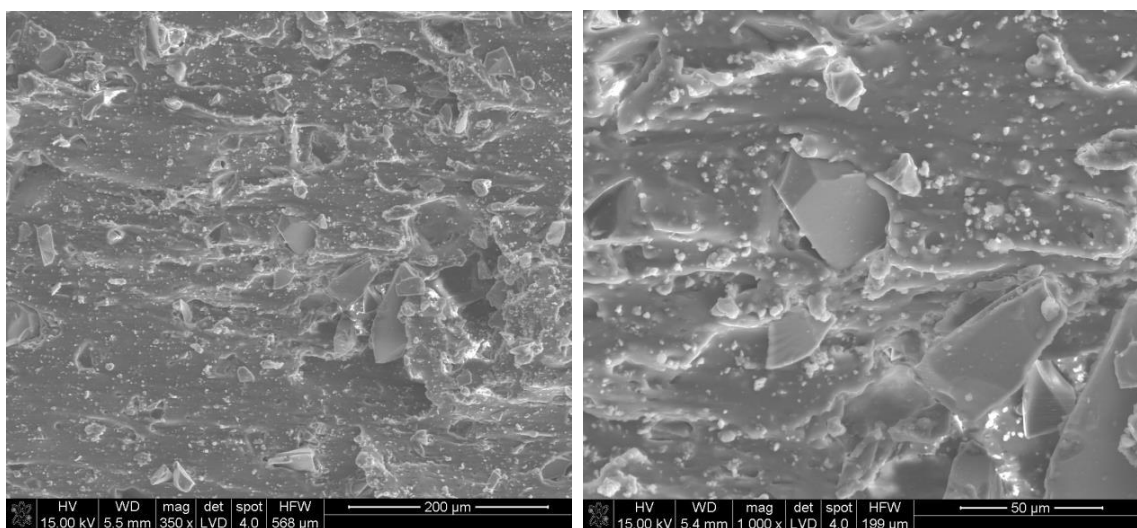
<sup>4</sup> Jan Kochanowski University, Department of Management and Environmental Protection, Kielce, Poland

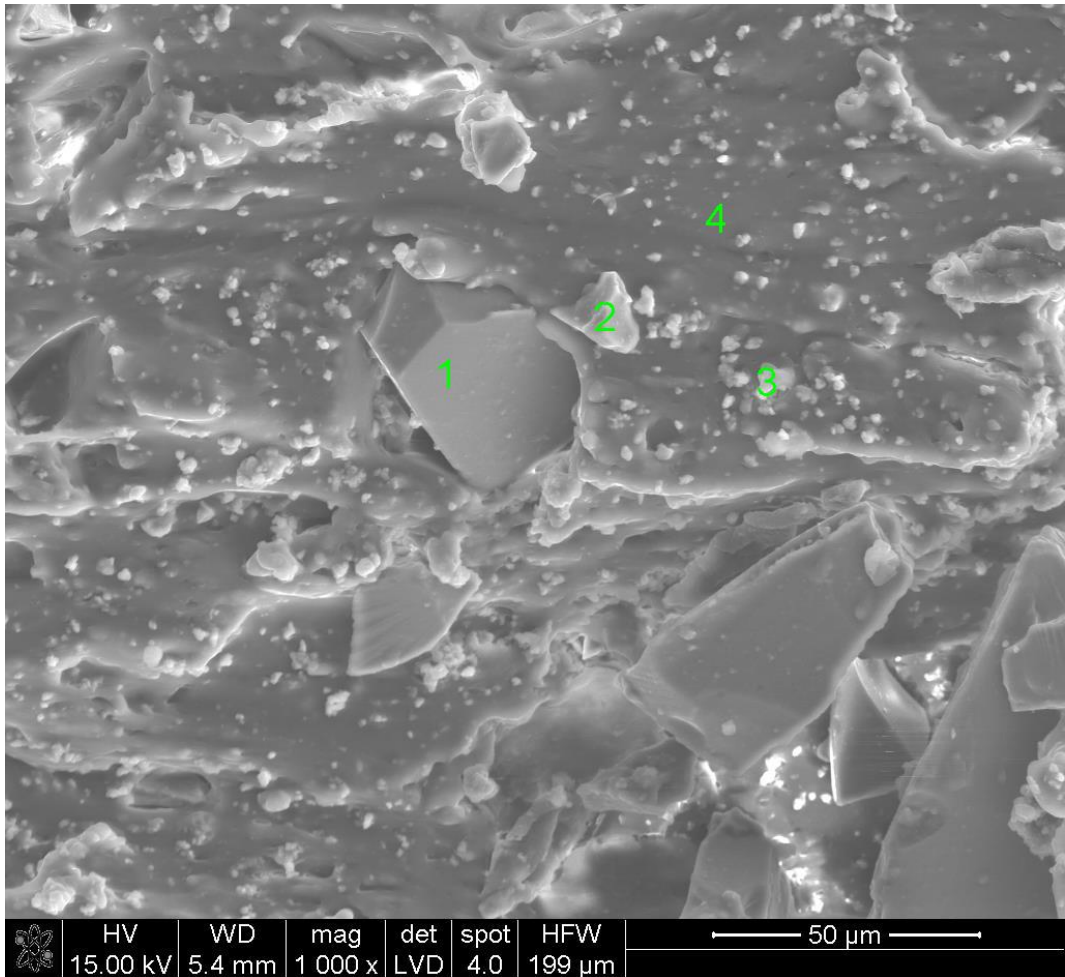
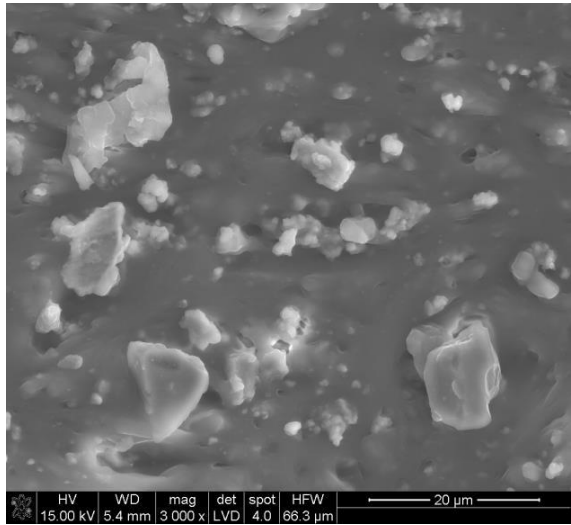
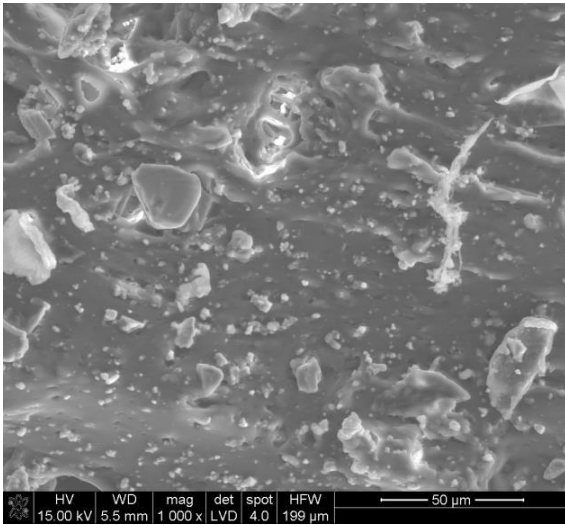
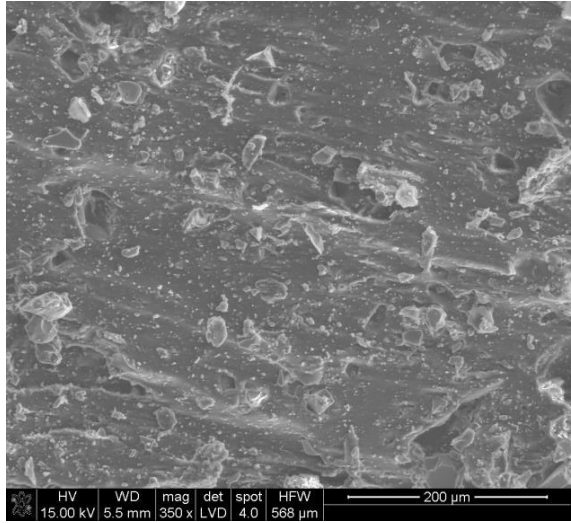
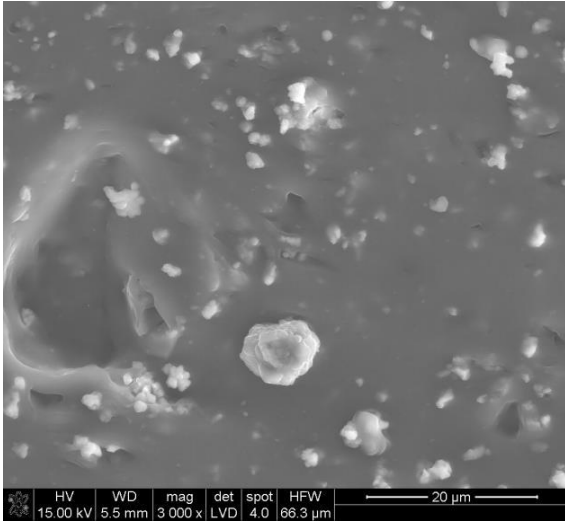
<sup>5</sup> University of Twente, Faculty of Engineering Technology, Department of Mechanics of Solids, Surfaces & Systems (MS<sup>3</sup>), Chair of Elastomer Technology & Engineering, Enschede, The Netherlands

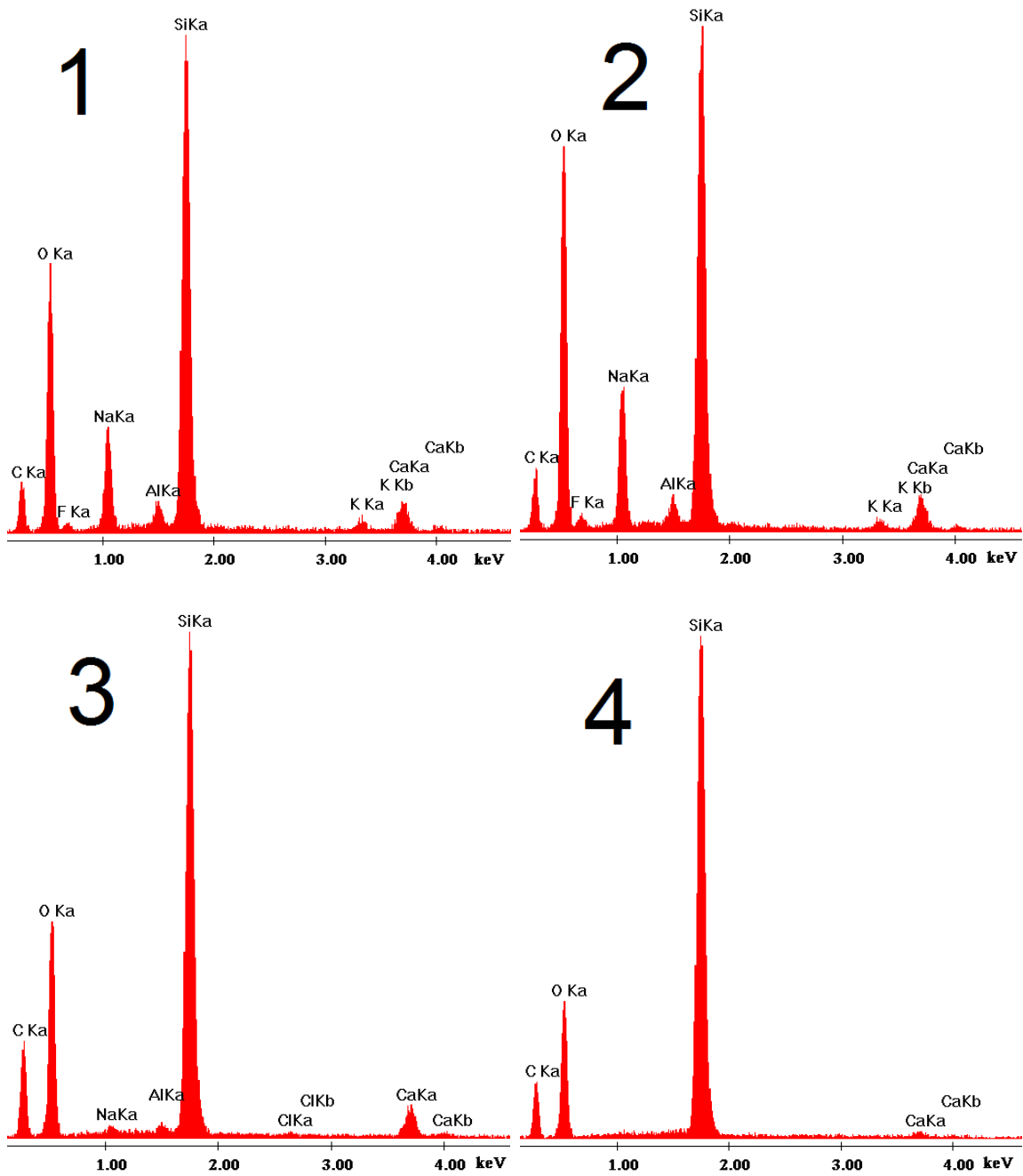
### **Experimental Methods**

Micromorphology of the composite samples was examined by means of scanning electron microscopy (SEM) Nova Nano 200 FEI (United Kingdom) equipped with EDS probe made by EDAX (USA).

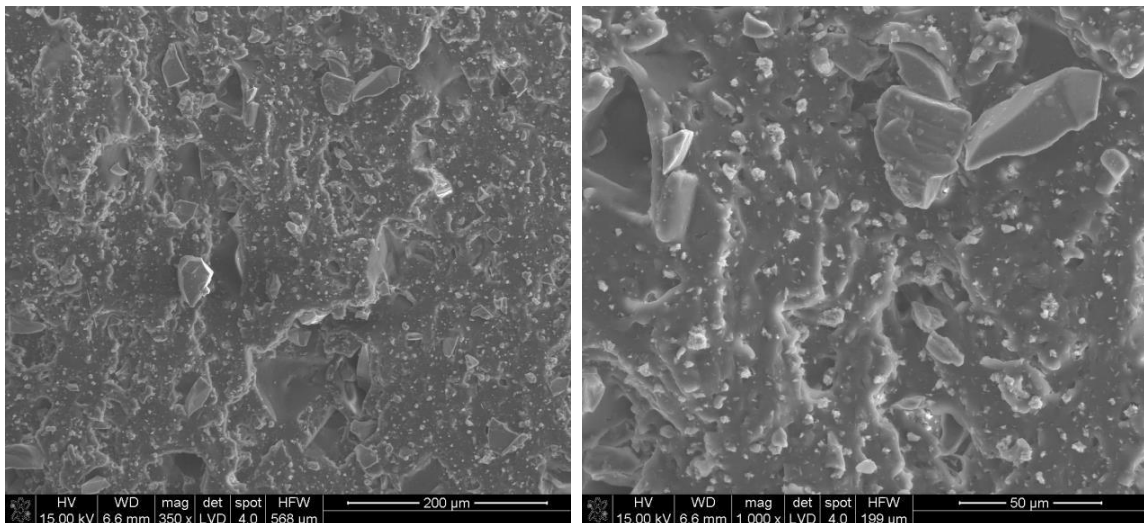
### **Micromorphology analysis**

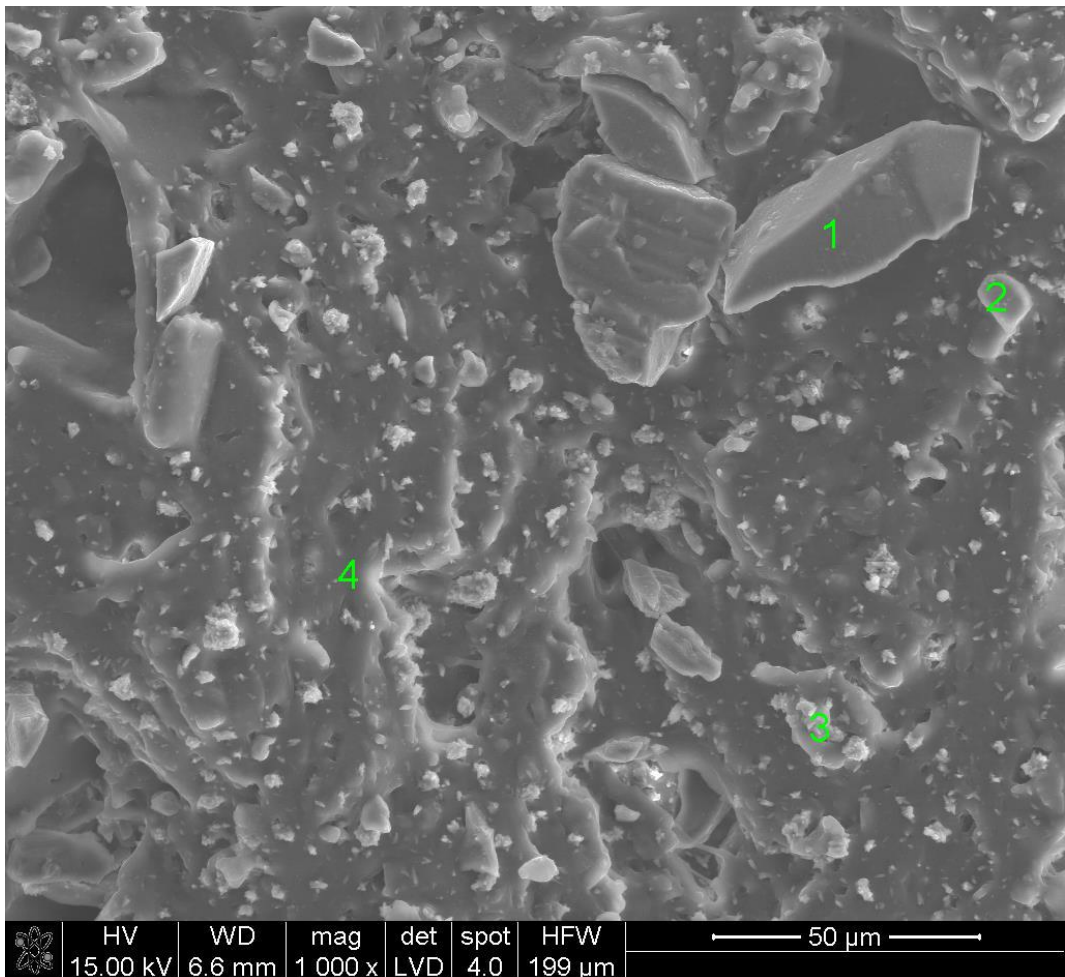
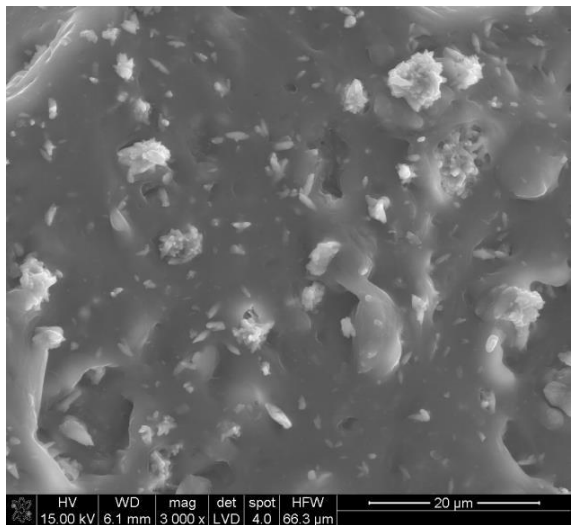
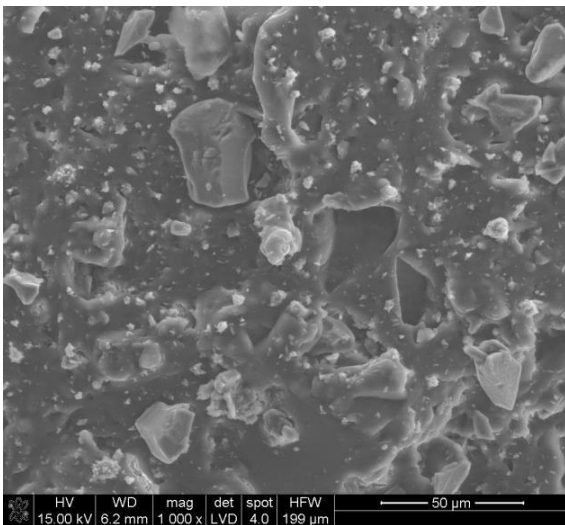
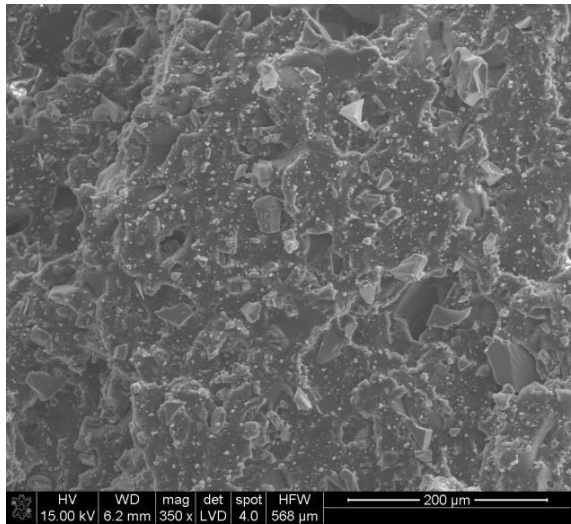
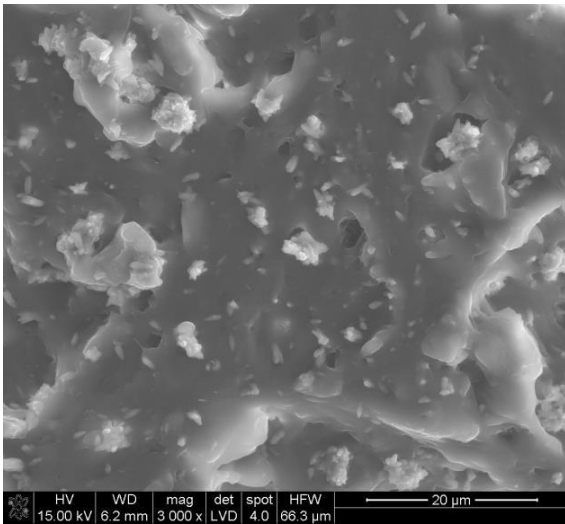


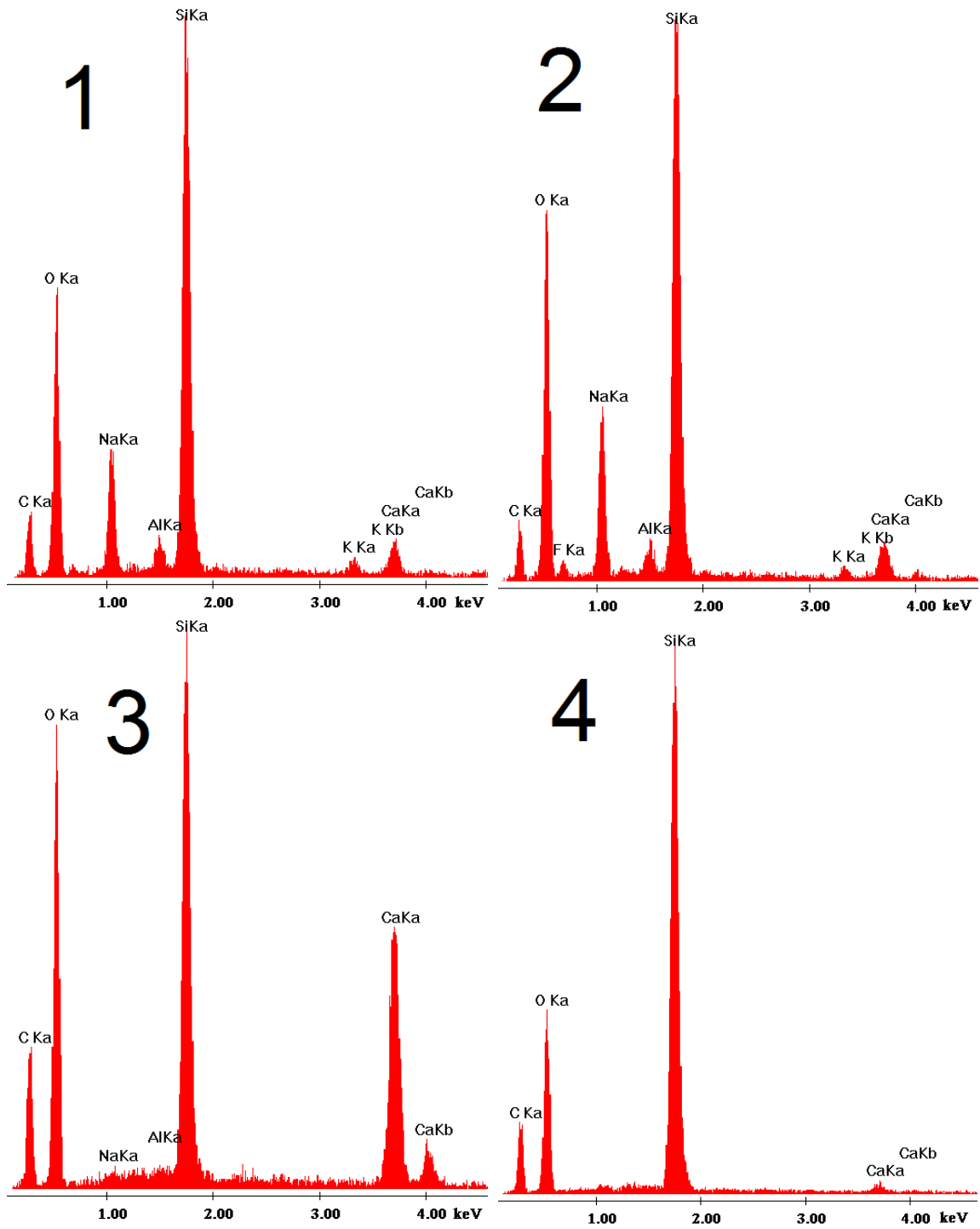




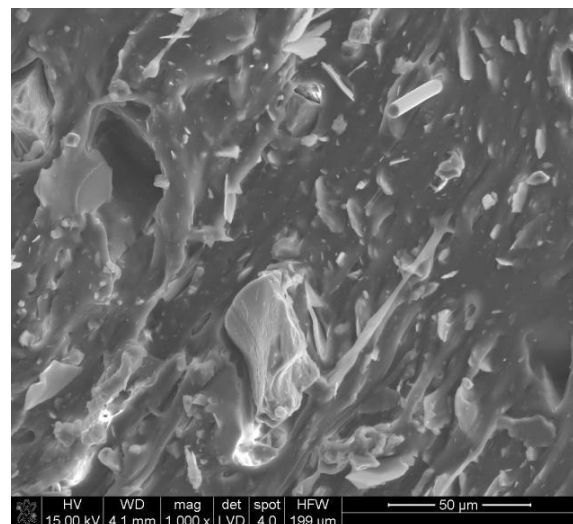
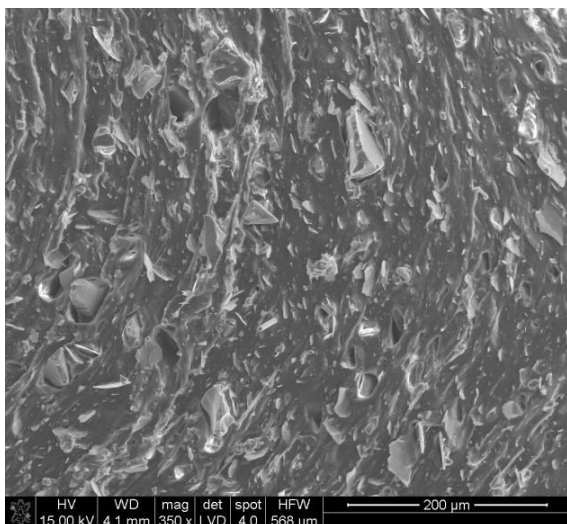
**Fig. 1S** SEM photographs and EDS analysis of CAO composite micromorphology

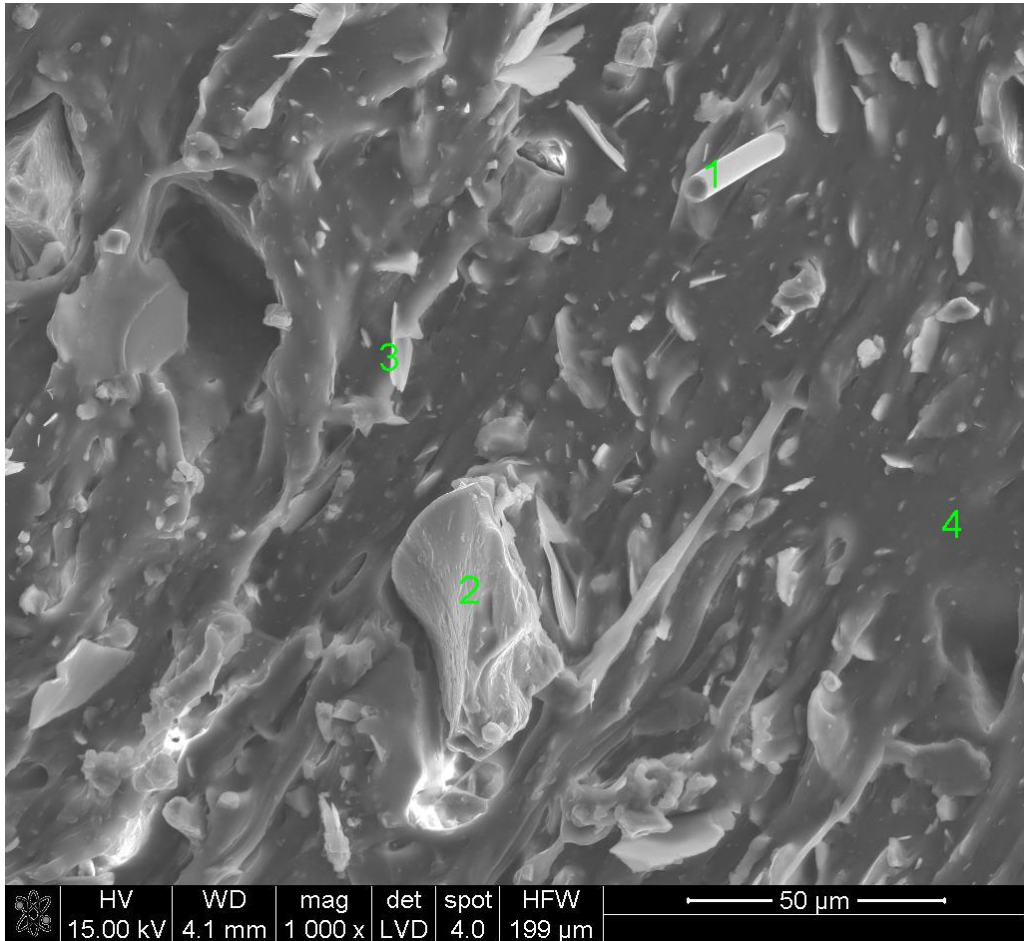
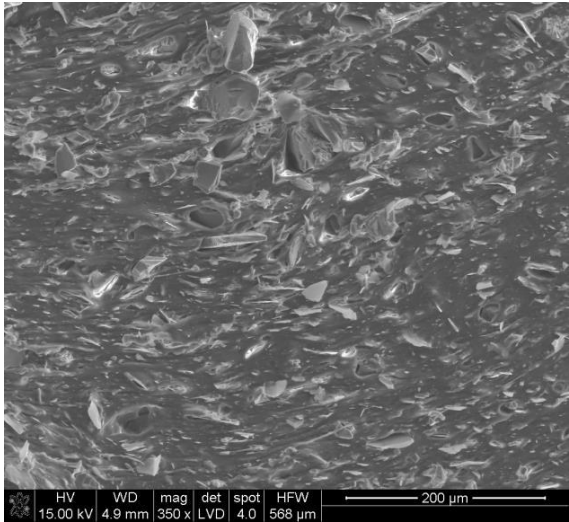
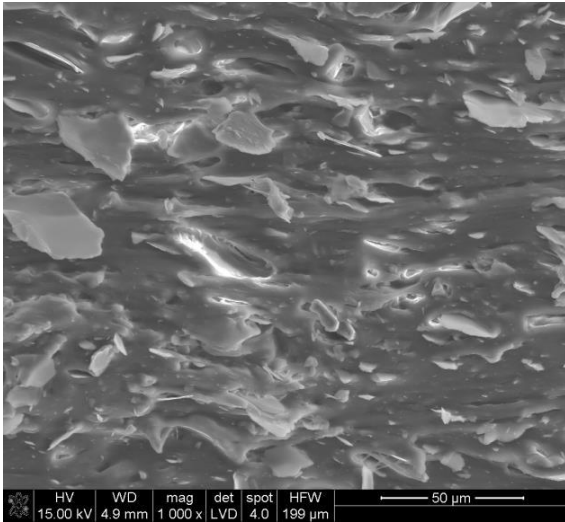
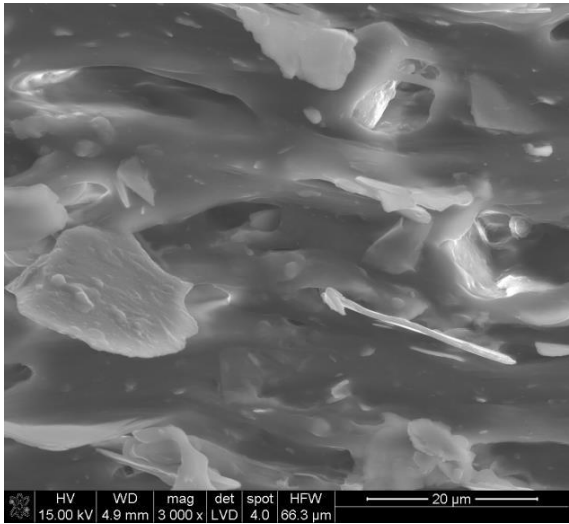
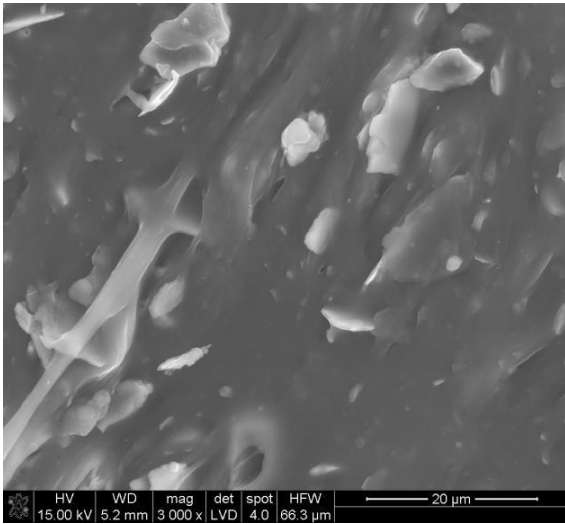


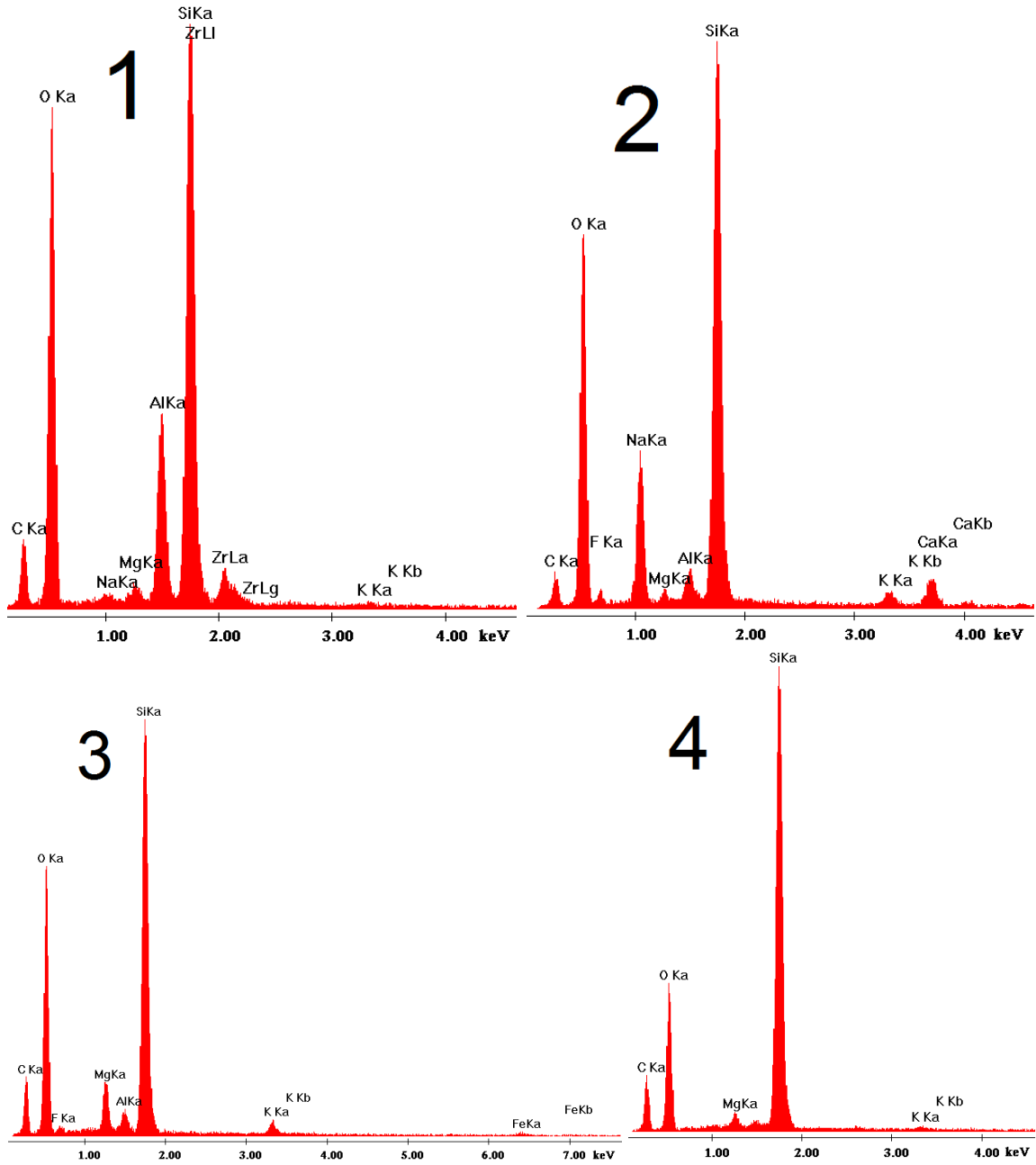




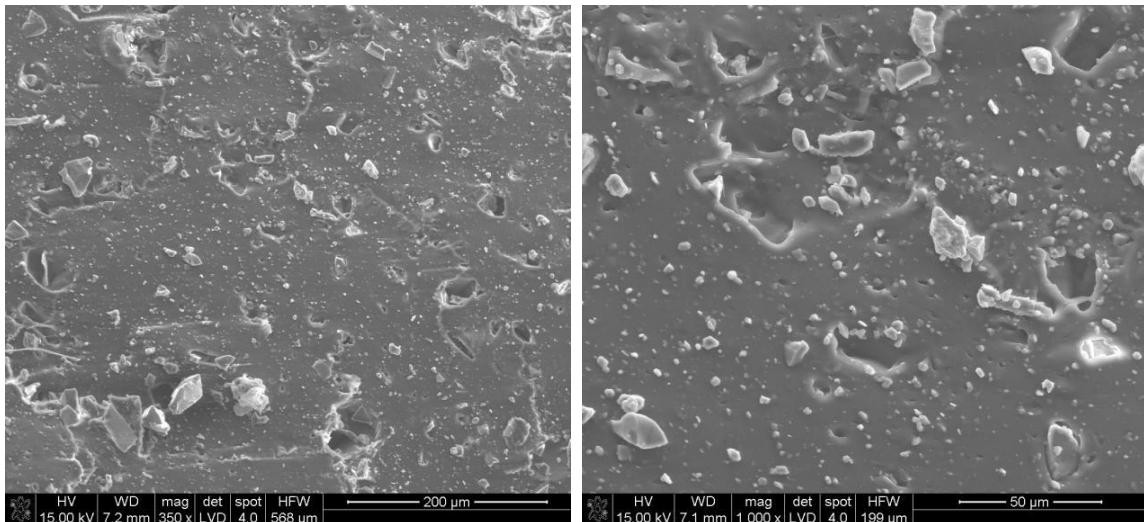
**Fig. 2S SEM photographs and EDS analysis of CACO composite micromorphology**

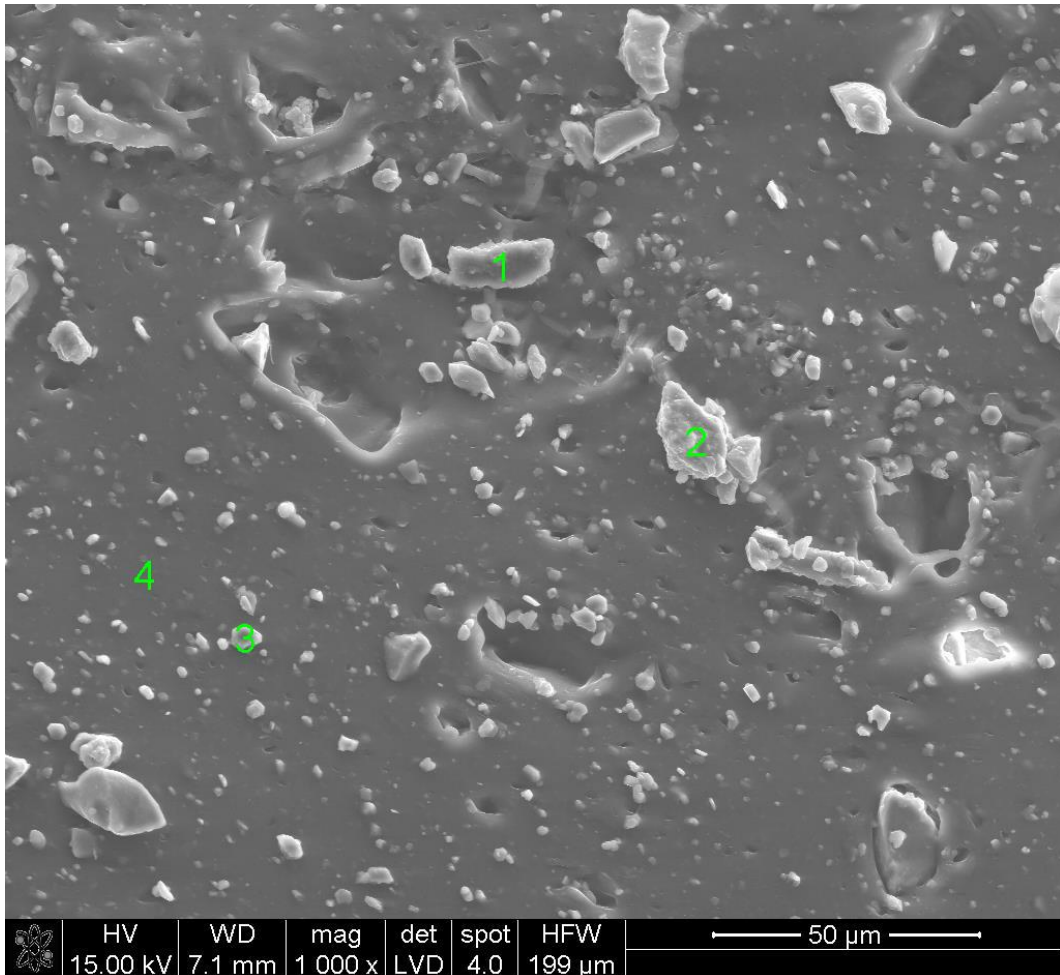
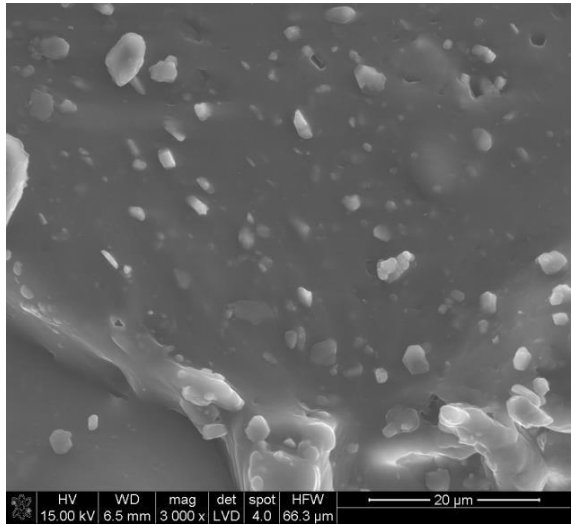
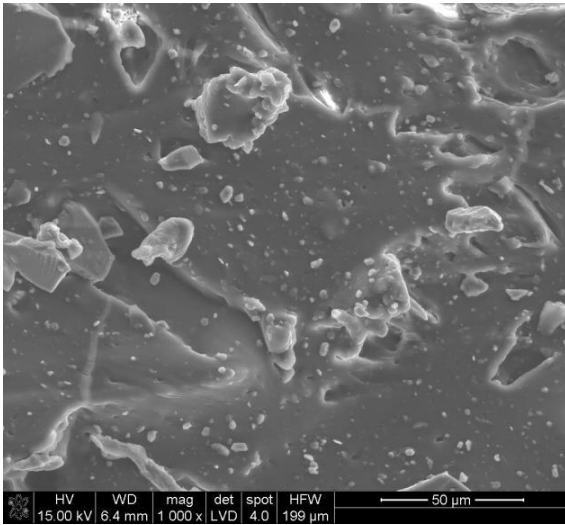
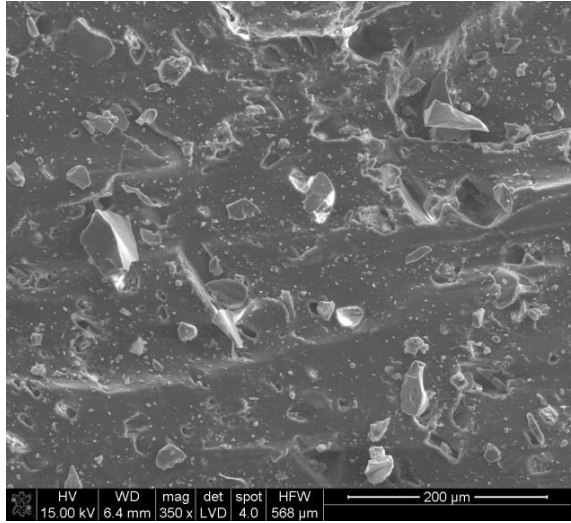
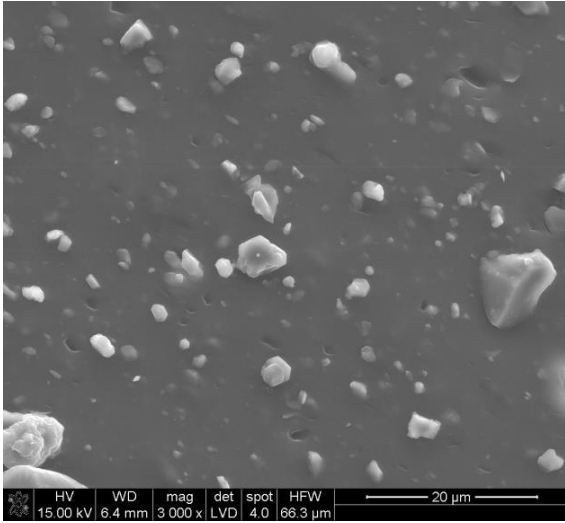




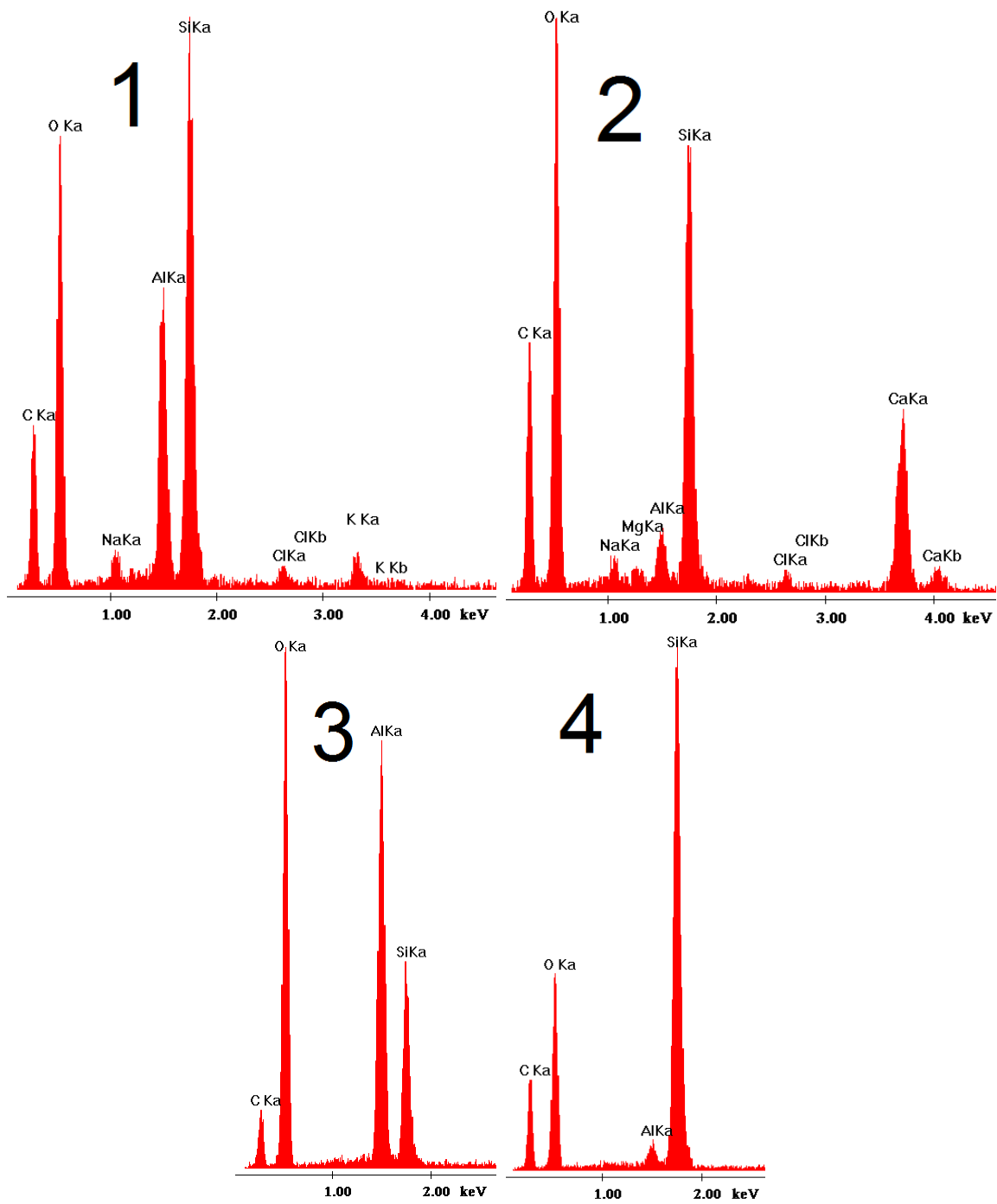


**Fig. 3S** SEM photographs and EDS analysis of MIC composite micromorphology

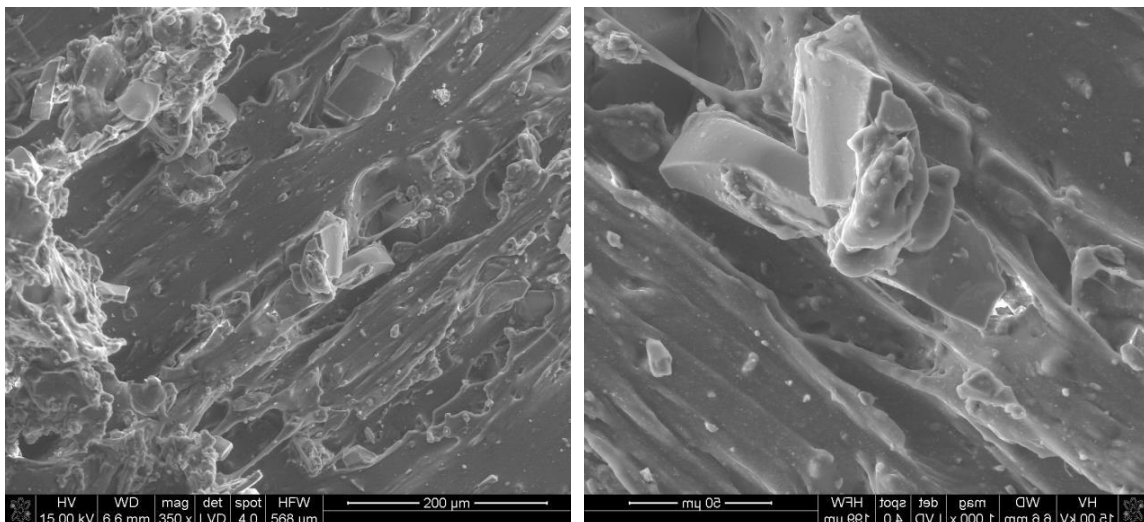


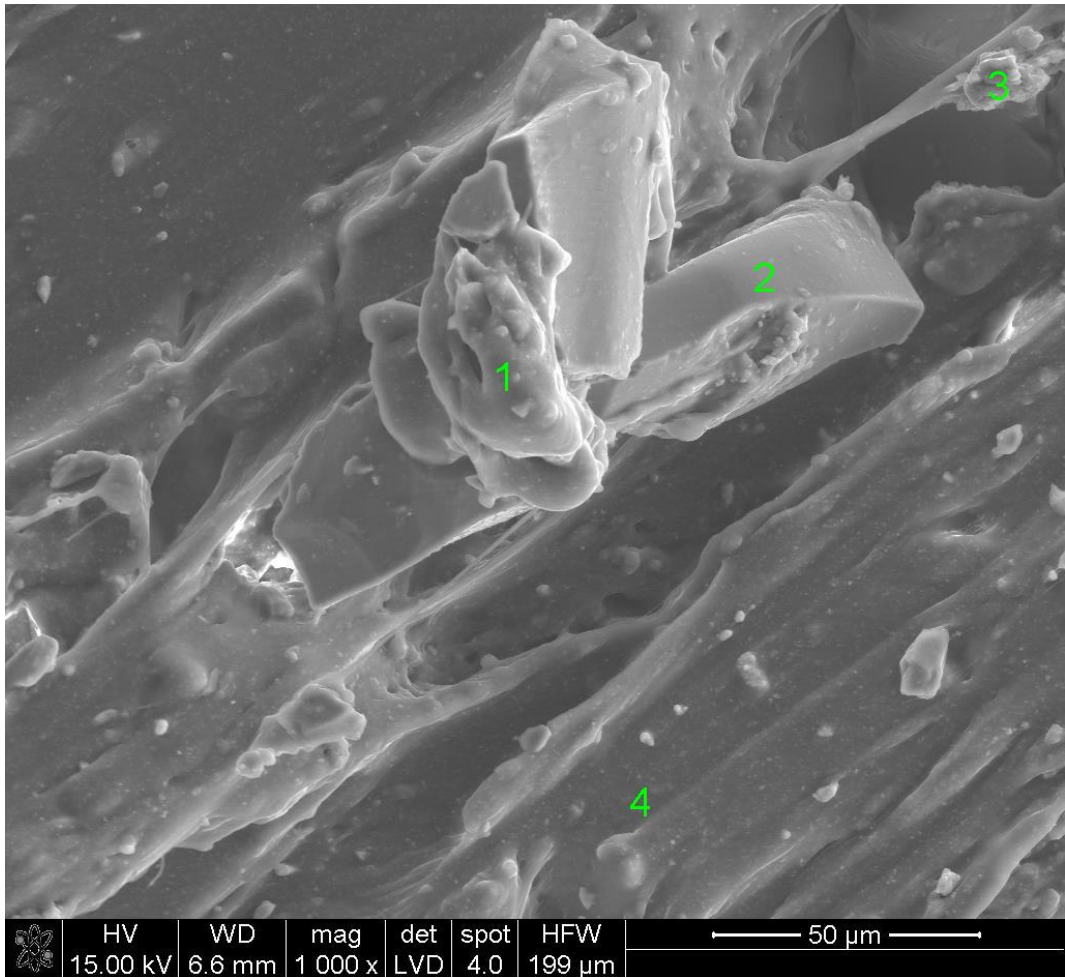
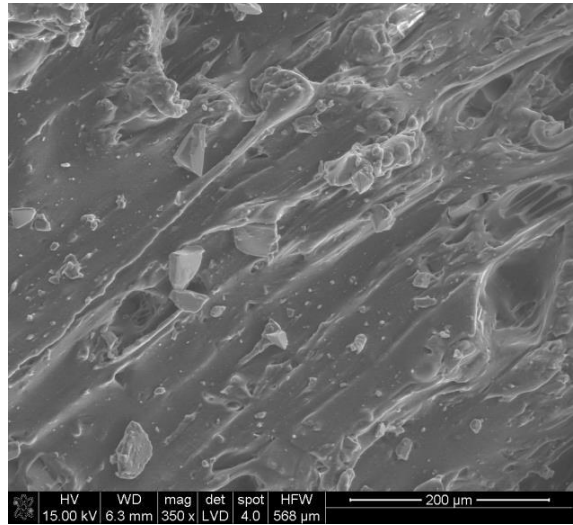
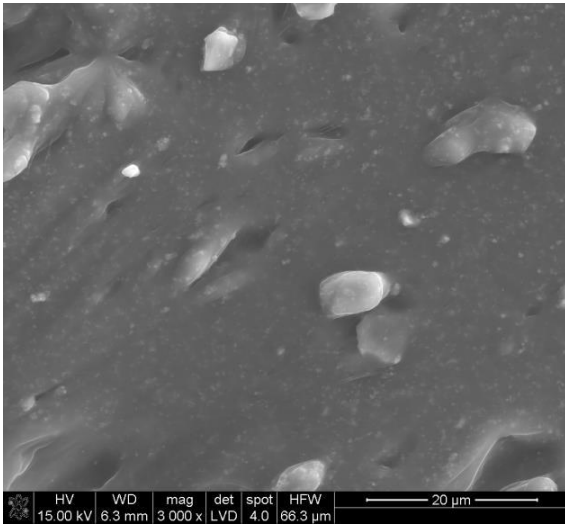
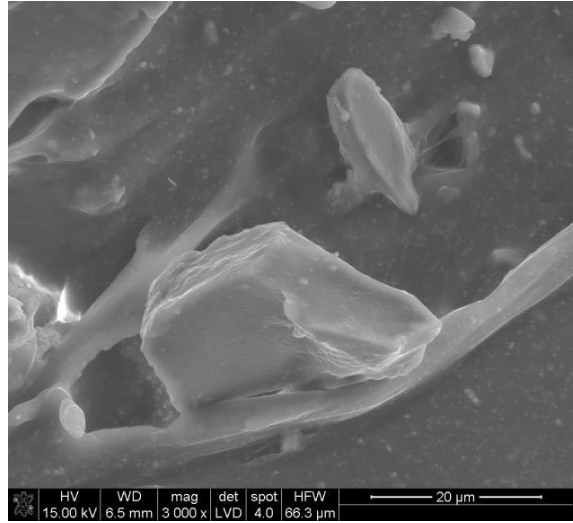
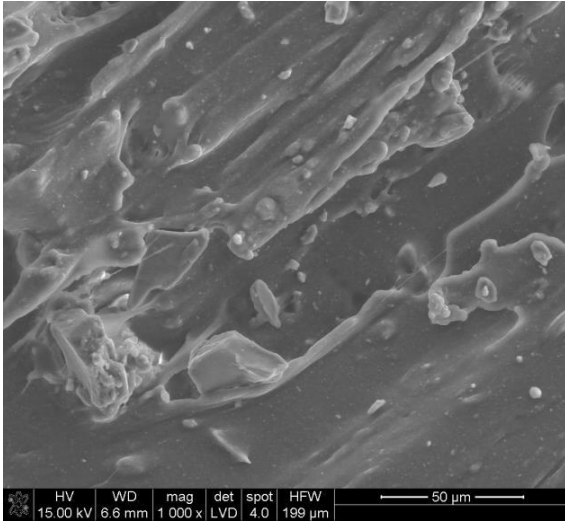


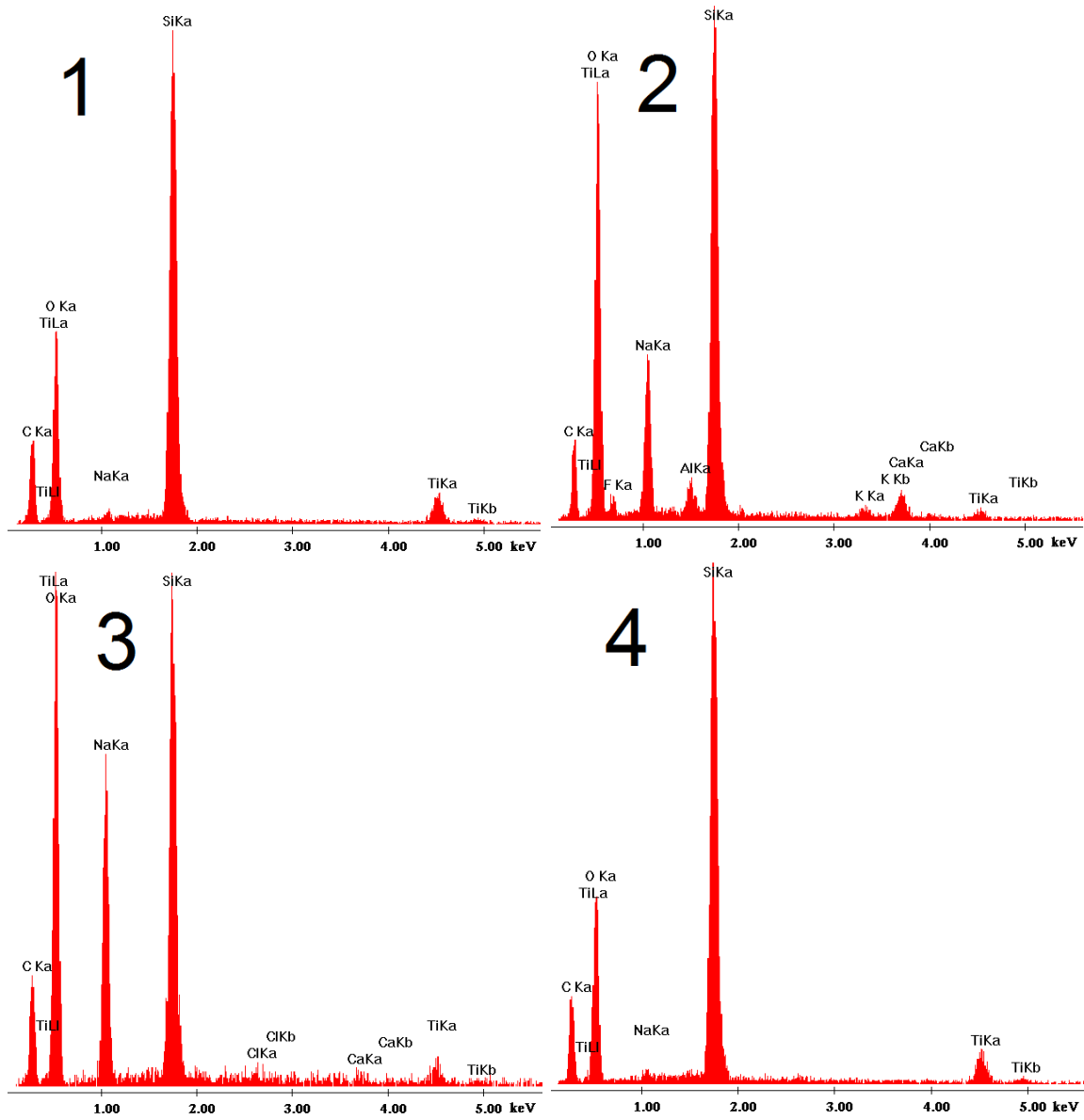




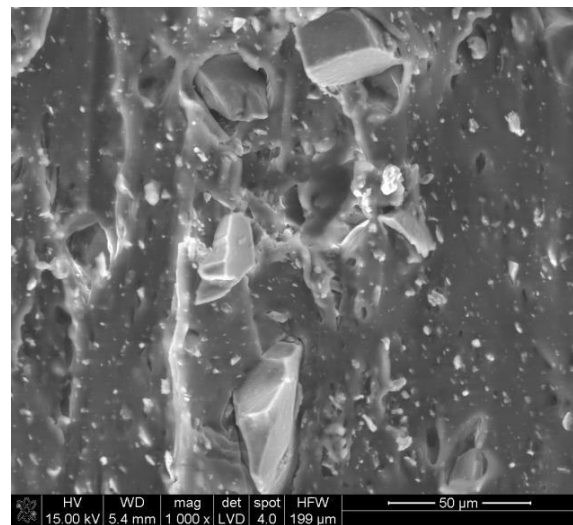
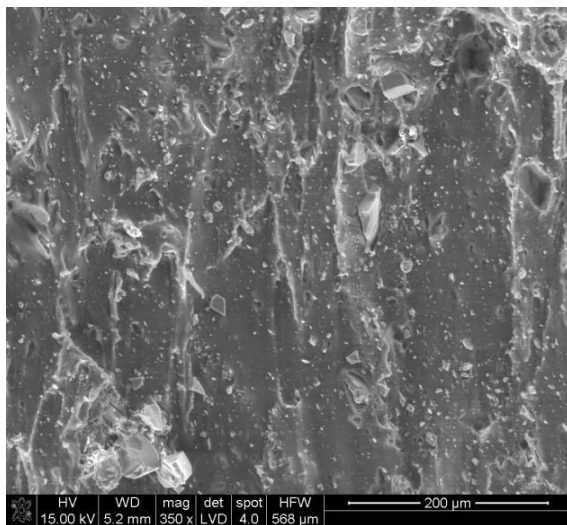
**Fig. 4S** SEM photographs and EDS analysis of AOH composite micromorphology

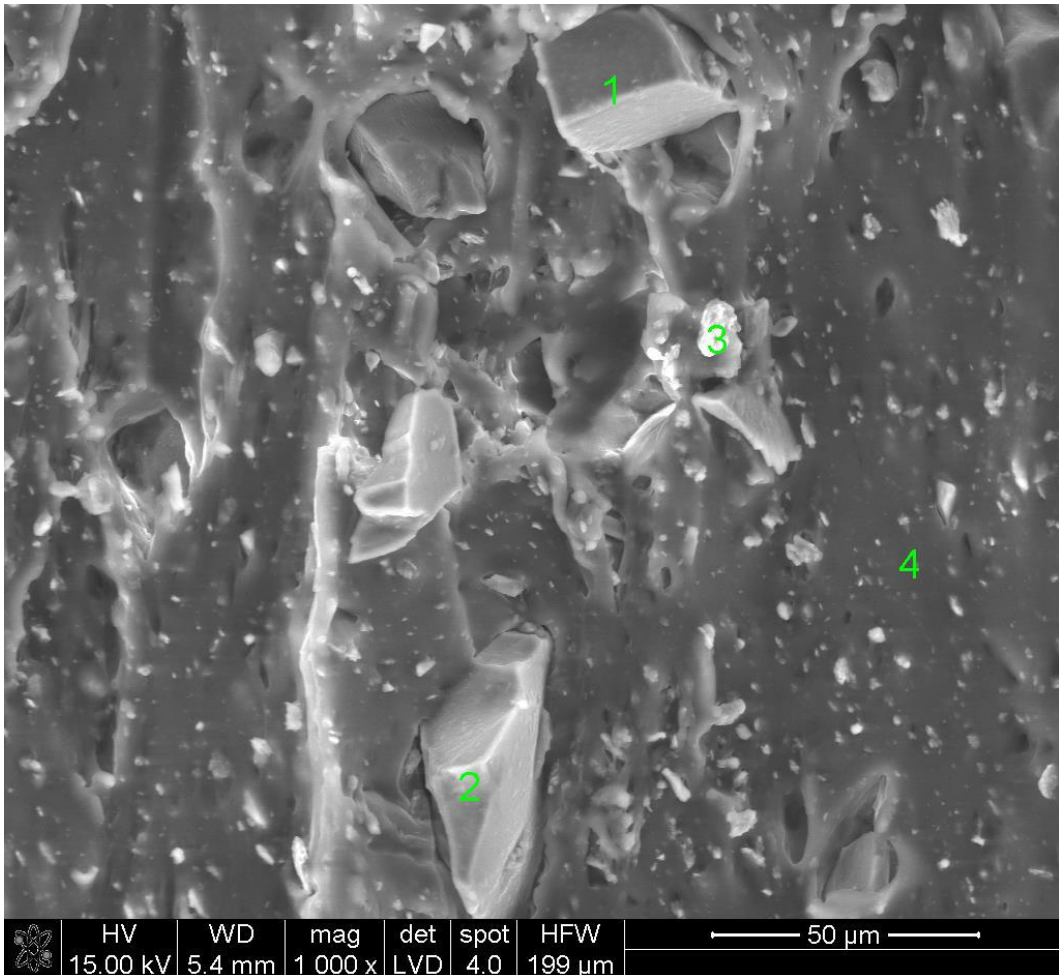
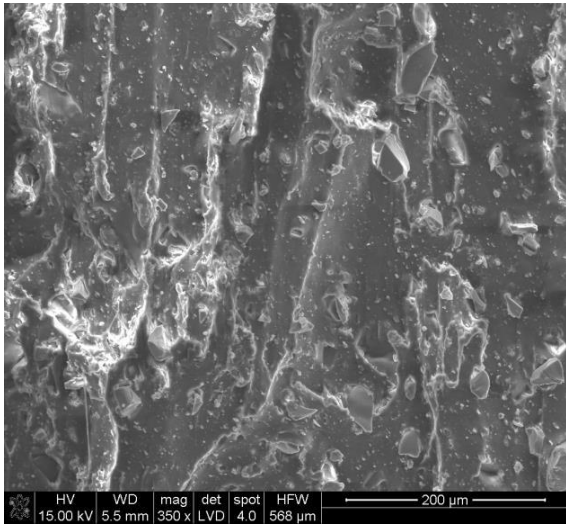
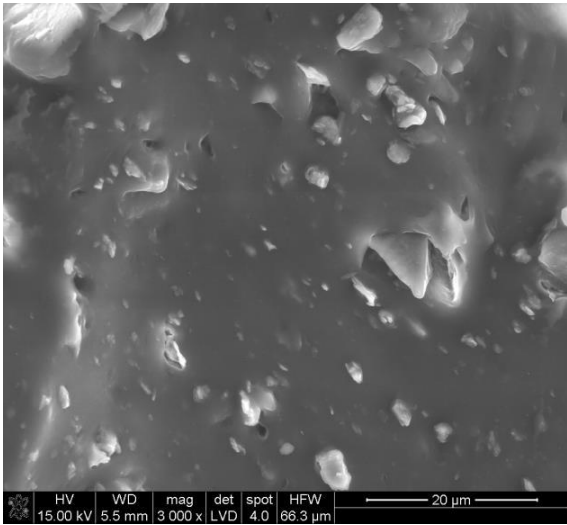
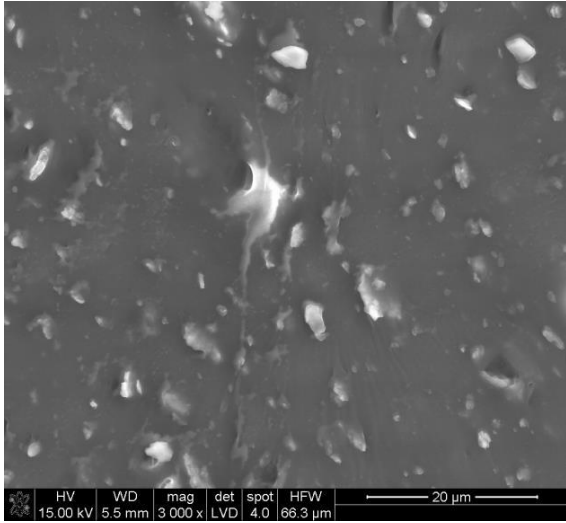
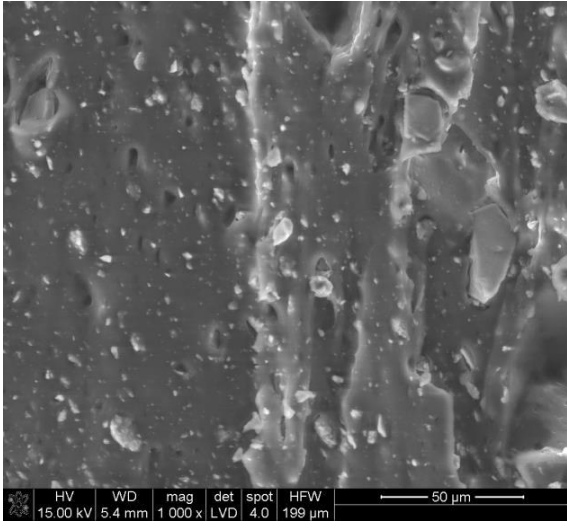


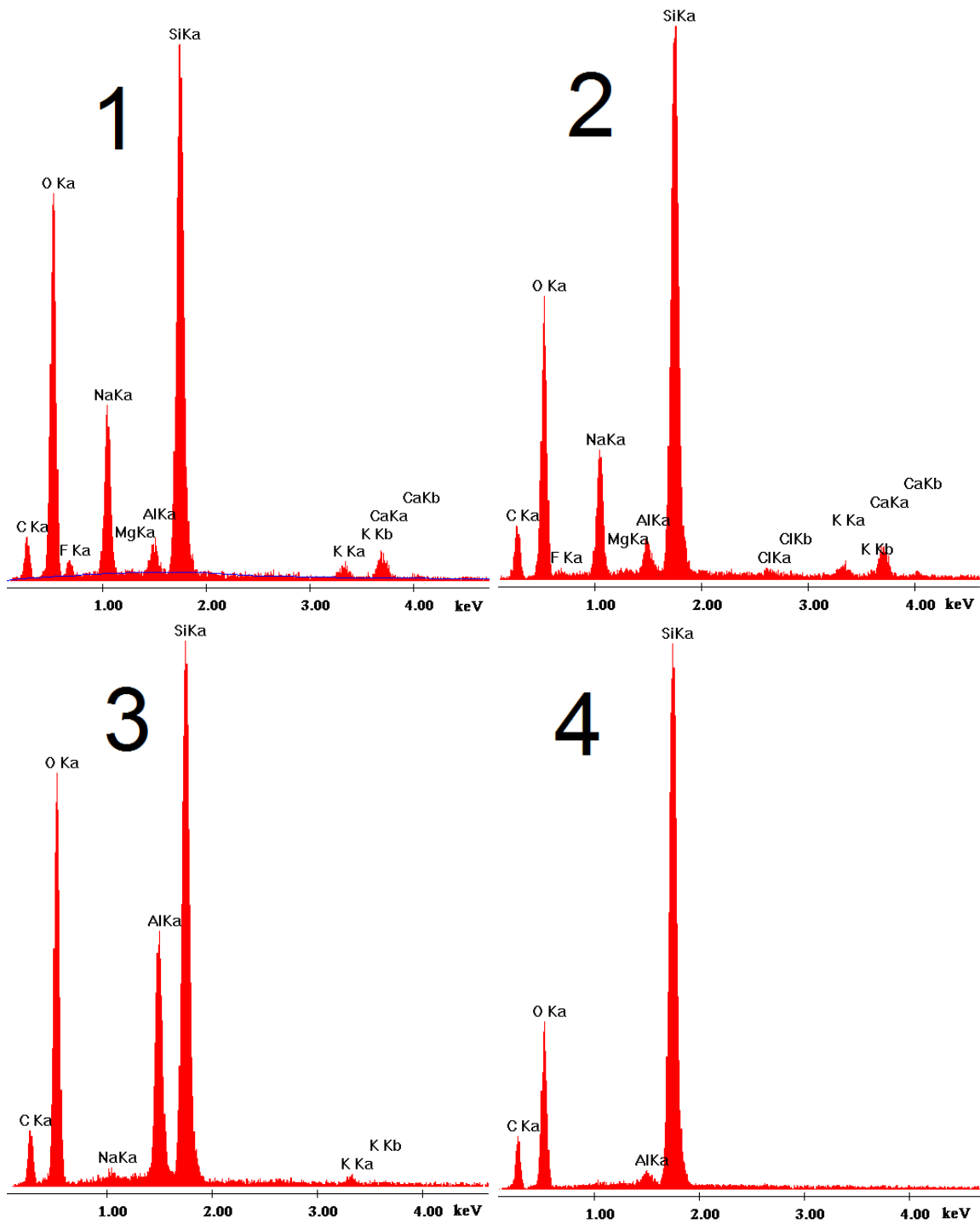




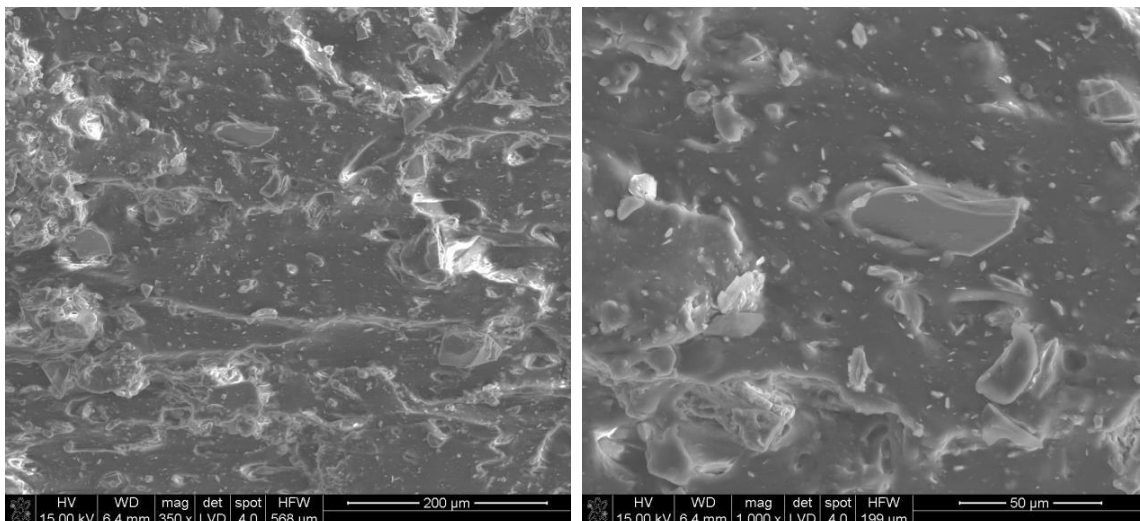
**Fig. 5S** SEM photographs and EDS analysis of TiO composite micromorphology

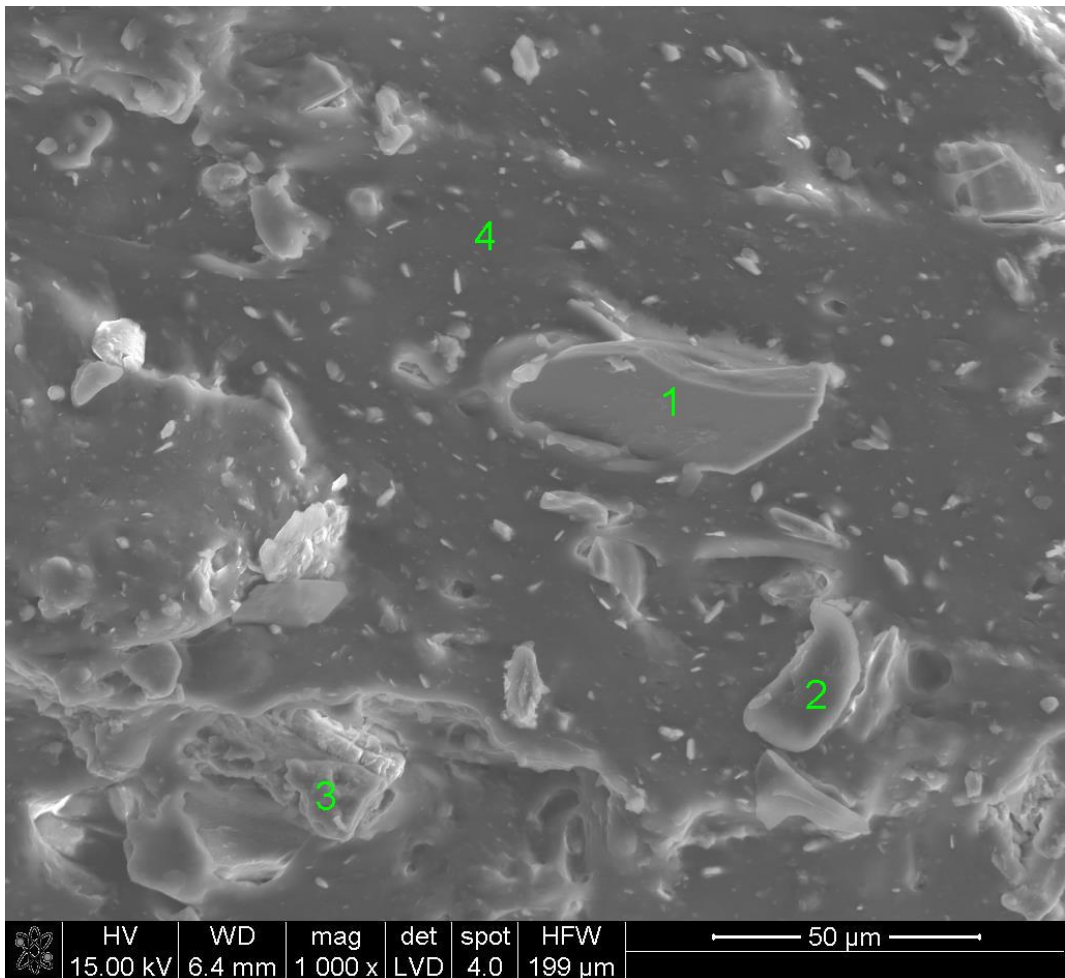
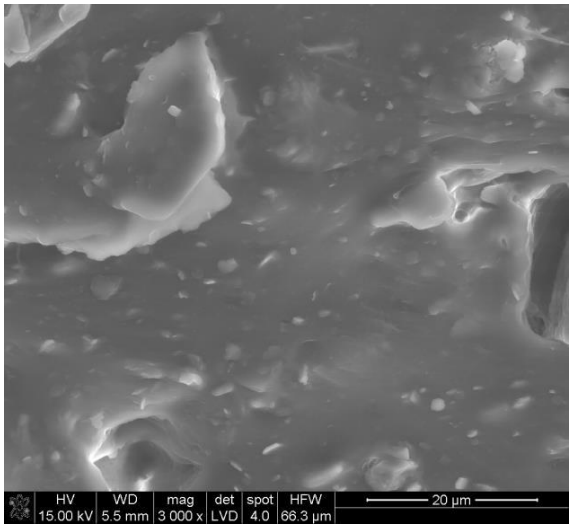
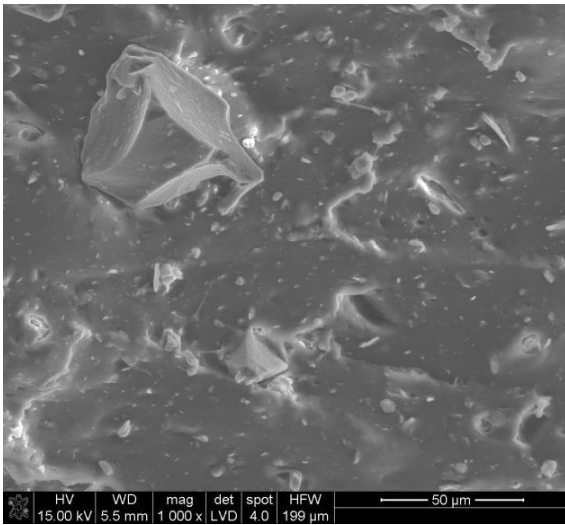
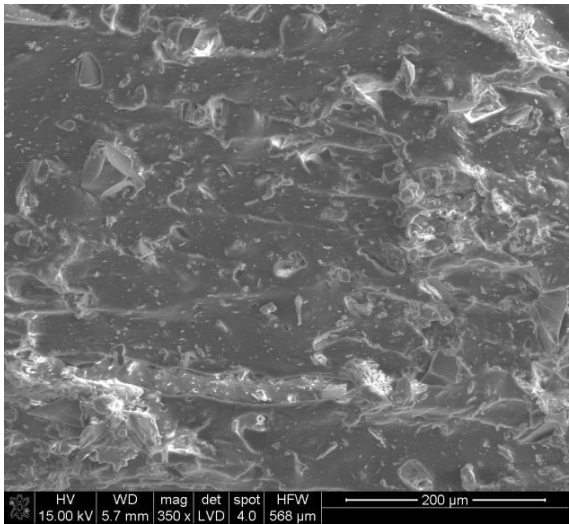
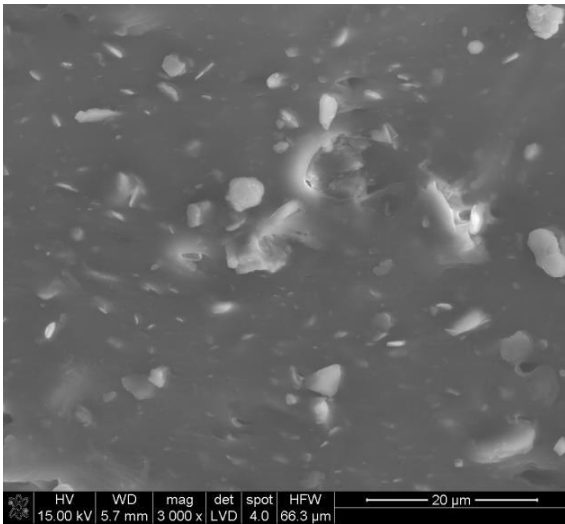


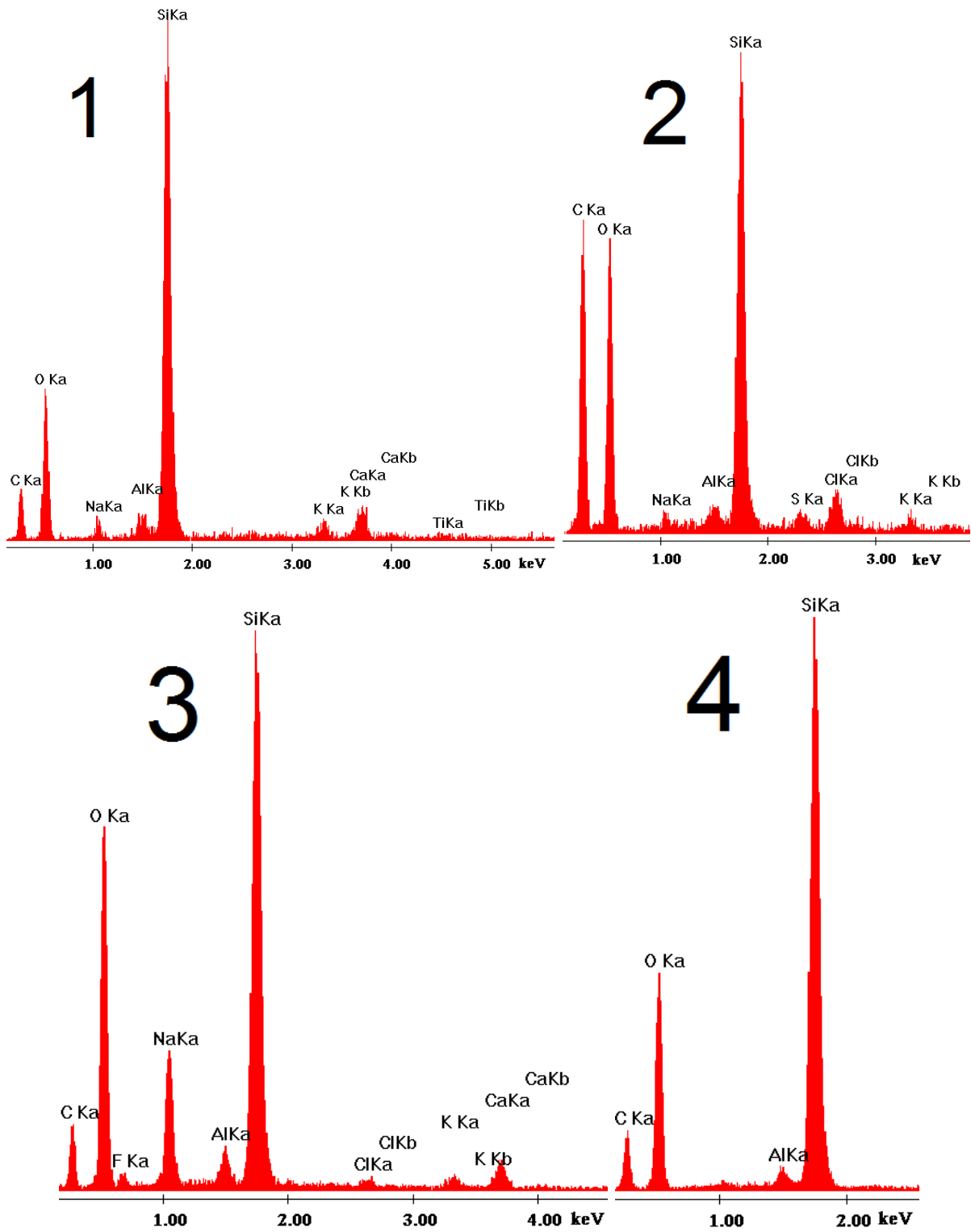




**Fig. 6S** SEM photographs and EDS analysis of C-KAO composite micromorphology







**Fig. 7S** SEM photographs and EDS analysis of KAO composite micromorphology