

## **Supplementary Information**

# **Study on the Effect of Silica-Graphite Filler on the Rheometric, Mechanical and Abrasion loss Properties of Styrene-Butadiene Rubber Vulcanizates**

A. M. Shanmugharaj<sup>a,b\*</sup>, K. Thileep Kumar<sup>a</sup>, G. Sivagaami Sundari<sup>a</sup>, E. Senthil Kumar<sup>a</sup>, A. Ashwini<sup>a</sup>, M. Ramya<sup>a</sup>, P. Varsha<sup>a</sup>, R. Kalaivani<sup>a</sup>, S. Raghu<sup>a,b</sup>, S. H. Ryu<sup>c</sup>

<sup>a</sup>Department of Chemistry, Vels Institute of Science Technology and Advanced Studies (VISTAS), Chennai, Tamil Nadu, India-600017

<sup>b</sup>Centre for Energy and Alternative Fuels, Vels Institute of Science Technology and Advanced Studies (VISTAS), Chennai, Tamil Nadu, India-600017

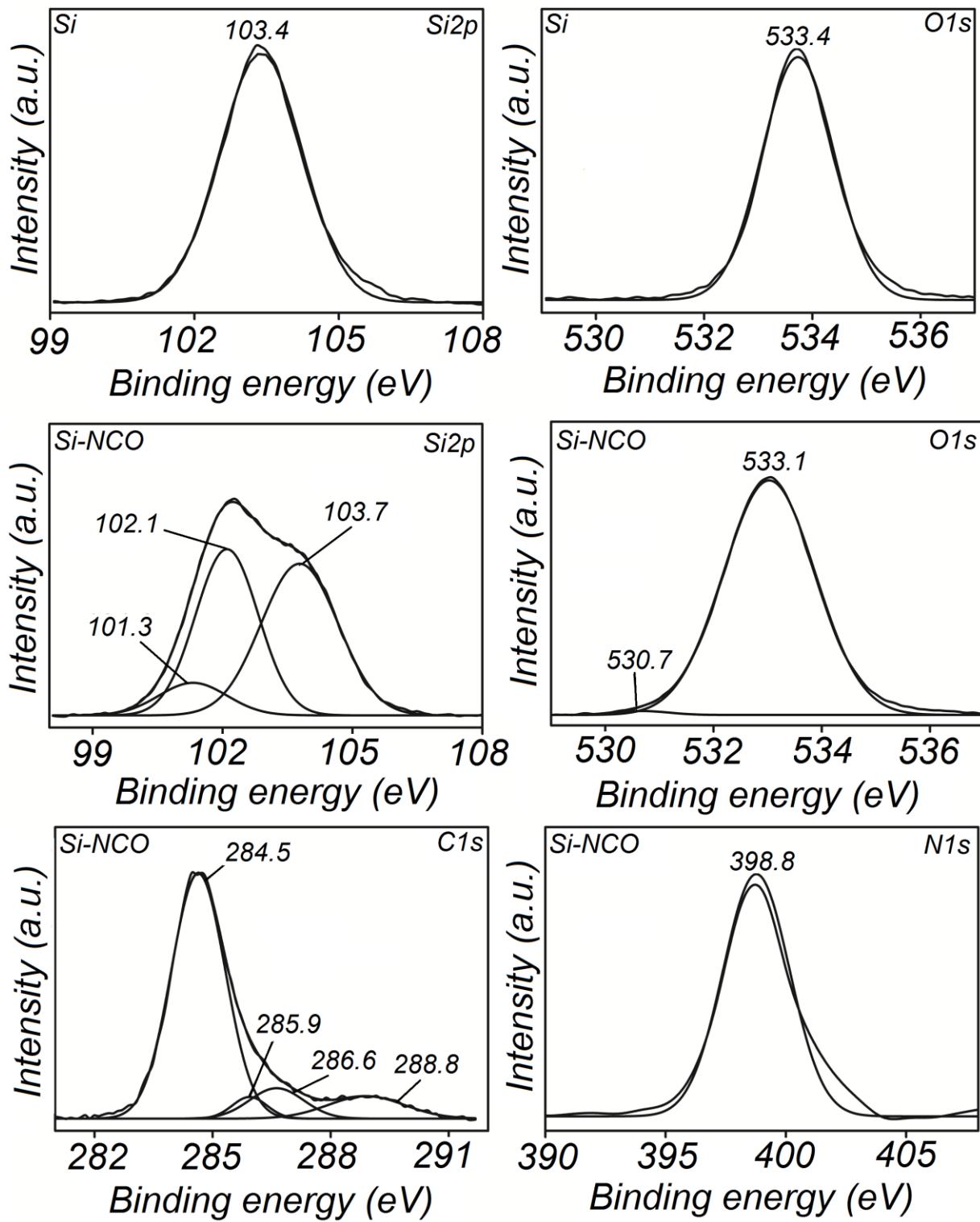
<sup>c</sup>Department of Chemical Engineering, Kyung Hee University, Kyunggi-Do 446701, South Korea

\*Corresponding author, Tel: +91-9566134630

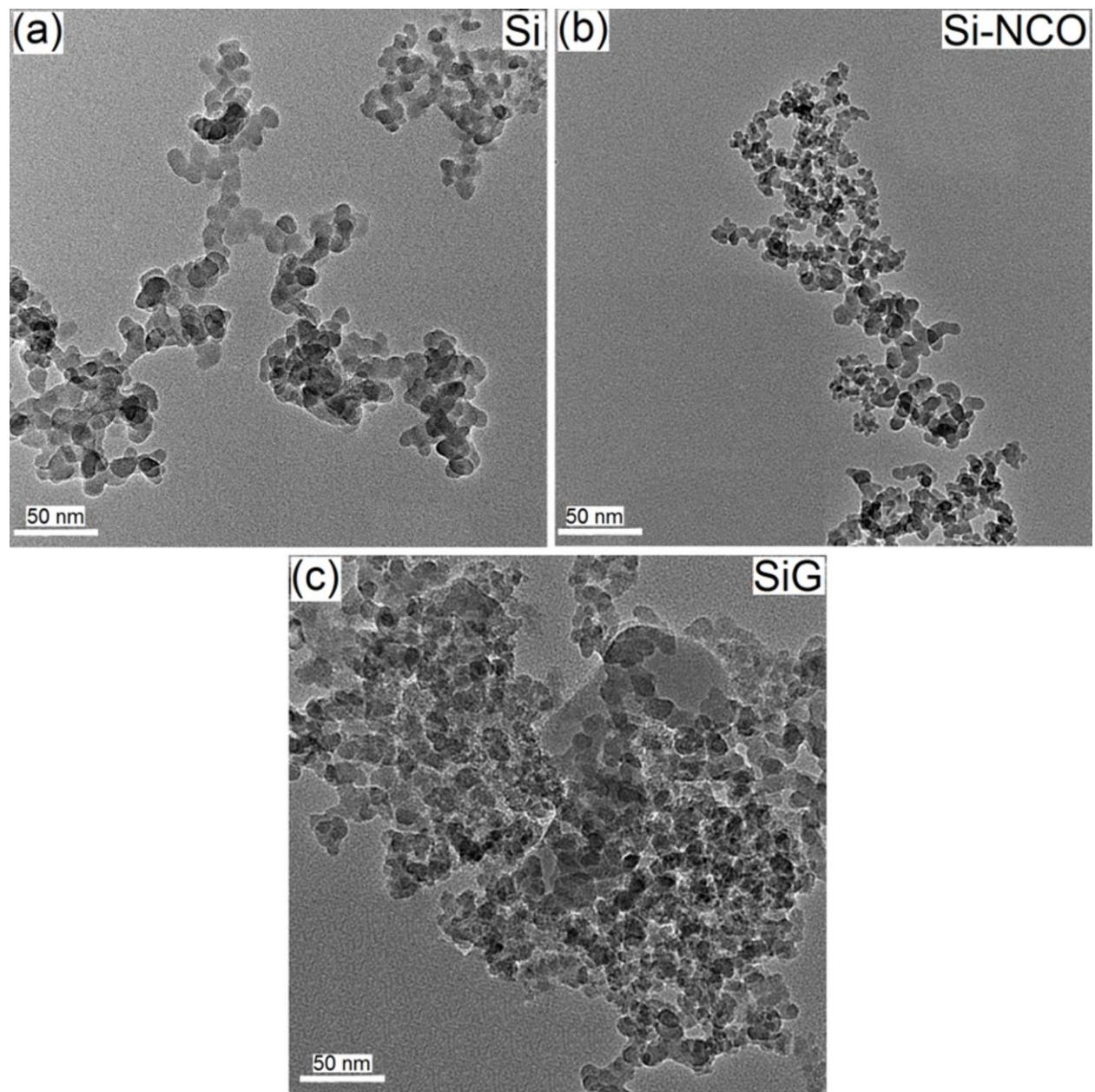
(Email: [shanmughar@gmail.com](mailto:shanmughar@gmail.com))

**Fig. S1** High resolution C1s, O1s and Si2p results of silica (Si) and silane functionalized silica (Si-NCO)

**Fig. S2** TEM results of silica (Si), Silane coated silica (Si-NCO) and silica-graphite (SiG)



**Fig. S1**



**Fig. S2**