

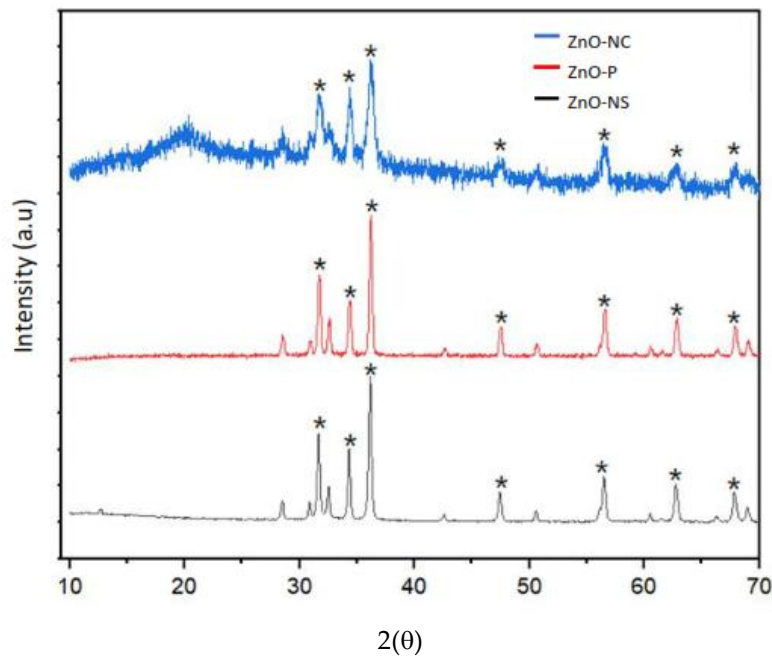
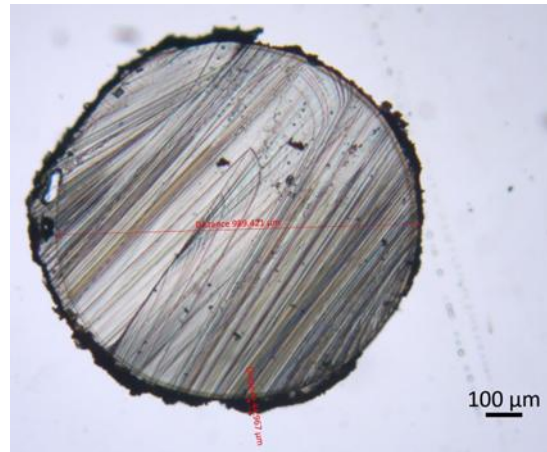


Figure 1. Comparison diffractogram of ZnO-NS (above), ZnO-P (middle), and ZnO-NC (below)



(a)



(b)

Figure 2. (a) ZnO nylon coated monofilament, (b) Cross-section of monofilament nylon coated with ZnO, red font legends are the diameter (989.421 μm) of nylon monofilament and the thinnest (44.967 μm) of ZnO-adhesive coating.

This work was supported by Universitas Syiah Kuala WCU-ICR LPDP research funding, grant number 1/UN11.2.I/PT.01.03/PNBP/2024, 3rd May 2024, and The Bridging grant (304/PKIMIA/6316598) from Universiti Sains Malaysia partially funded this research

<https://doi.org/xx/ijtech.xx>

Received date; Revised date; Accepted date

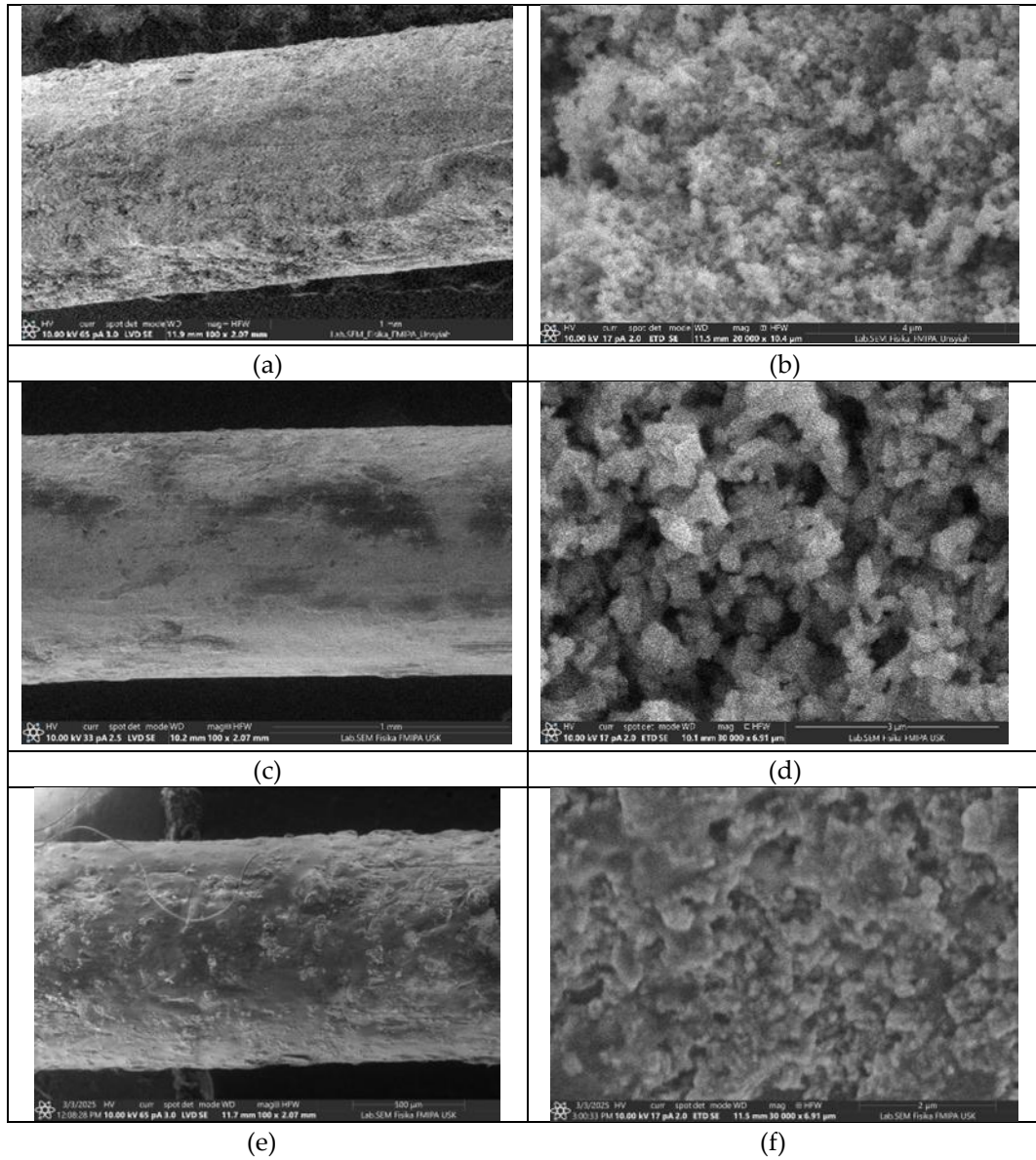


Figure 3. SEM image (100x & 30.000x) of monofilament coated with ZnO-P (a-b); ZnO-NC (c-d); ZnO-NS (e-f)

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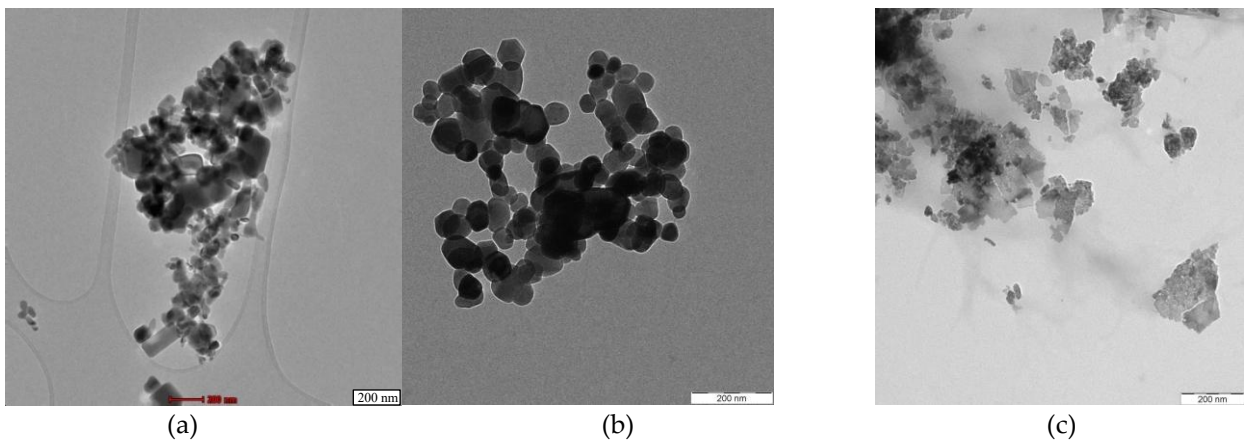


Figure 4. TEM images of (a) ZnO-P, (b) ZnO-NC, (c) ZnO-NS; (all scale bars were 200 nm)

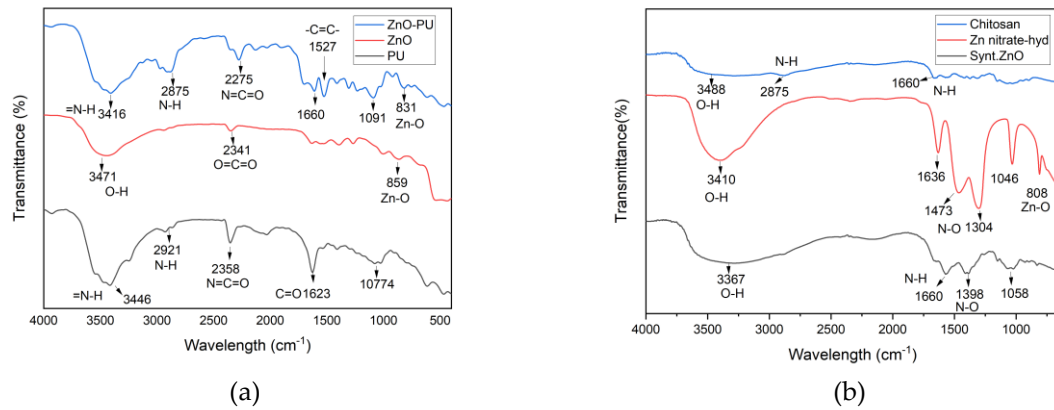


Figure 5. Comparison of FTIR spectra between (a) PU adhesive only and ZnO-P+PU adhesive, (b) ZnO-NS synthesized with chitosan matrix



Figure 6. Reactor photocatalytic in (a) UV experimental setup, (b) Hypothetical design for sunlight photocatalytic reactor

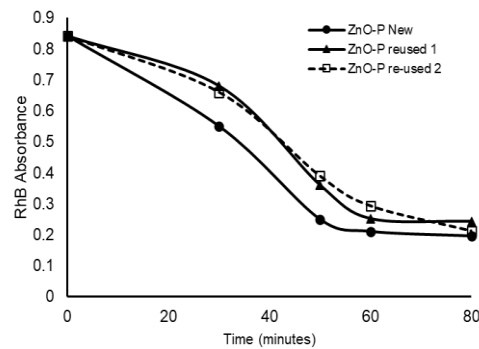


Figure 7. Catalytic activities used ZnO-P and fresh ZnO-P in the reusability experiment