

# NORAZOWA IBRAHIM Ph.D. (Univerisiti Putra Malaysia)

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Biocomposites, Nancomposites, Polymers



Associate Professor. Dr. Nor Azowa Ibrahim is an associate professor at the Chemistry Department, UPM. She is currently the deputy dean of Academic and Financial Assistance at School of Graduate Studies UPM. Her major research areas include preparation and characterization of natural fiber reinforced composites using both biodegradable and non biodegradable matrix, improvement of fiber matrix interaction as well as polymer blends. She is also involved in the preparation of nanocomposites using nano clay, nano silver and graphene. She has contributed more than 100 technical papers and two chapters in the Research on Natural Fiber Reinforced Polymer Composites book. Her research group has been sponsored by the ScienceFund (Ministry of Science and Innovation of Malaysia (MOSTI), Research University Grant Scheme (RUGS) and Fundamental Research Grant Scheme (FRGS).

#### **CURRENT RESEARCH INTERESTS:**

### Natural fiber Reinforced Composites

Due to the environmental problems caused by plastics, many efforts have been put to prepare biodegradable materials with properties similar to non degradable polymers. We focus on the fiber matrix interaction in order to improve the mechanical properties of the material. Several techniques have been used including fiber treatment, fiber modifi-cation by grafting with vinyl monomer, addition of crosslinker, plasticiser and stabilizer. This is because natural fiber is hydrophilic and the polymer matrix is hydrophobic thus is unable to produce material with good properties.

#### Nanocomposites

Addition of small amounts of nano clay can improve the mechanical and thermal properties. At the same time nano clay can acts as compatibiliser for polymer blends. This is practically important to produce new high end materials from biodegradable polymers. Our group also focuses on the preparation of nano silver to be used as fillers in biodegradable polymer. Nano silver is known to have antibacterial activity, thus addition of nanosilver in biodegradable polymers may produce biodegradable materials suitable for food packaging.

LINK TO POSTGRADUATE FIELD OF STUDY:

Material Science, Polymer Chemistry

## **ADDITIONAL INFORMATION:**

https://scholar.google.com/scholar?start=10&q=nor+azowa+ibrahim&hl=en&as\_sdt=0,5.