

Synthesis of ZnO Nanoparticles from Waste Materials

Tanvir Ahmed Chowdhury^{1,2}, Jahirul Islam Khandaker¹, Md. Abdul Gafur³

¹Department of Physics, Jahangirnagar University, Savar, Dhaka, Bangladesh

²Department of Textile Engineering, Daffodil International University, Dhaka, Bangladesh

³PP & PDC, Bangladesh Council of Scientific & Industrial Research, Dhaka, Bangladesh

Waste Material:

Zinc Dross
Used Dry-Cell Batteries

ZnO Nanoparticles

Synthesis of ZnO NPs from Dry-Cell Battery:



Zinc Plate separated
From used battery



Zinc Plate Reacts
with HCl



Addition of NaOH
with Constant Stirring



Wash the precipitation
with distilled water



Dried the
Precipitation
& ZnO NPs

XRD Result of Synthesized ZnO NPs

