

Ullah et al (2018) synthesized MnO NPs from a simple green synthesis technique for the production of crystalline-MnO₂ NPs with diameters ranging from 4-18 nm. The method for making MnO₂ nanocrystals is easy, environmentally friendly, cost-effective, and efficient and it does not require any external reducing agents or stabilizers. The magnetic properties of MnO₂ NPs prepared by this method were investigated using a vibrating sample magnetometer at room temperature, and the VSM analysis revealed a small hysteresis loop, indicating that the bio-molecule capped MnO₂ NPs have a weak ferromagnetic property. **Veeman Sannasi et al (2020)** synthesized MnO NPs by two crystallographic phases of MnO₂, a-MnO₂ and b-MnO₂ respectively. The materials were analyzed using SEM and TEM and revealed nanocrystals morphology for a-MnO₂ and nanorod morphology for b-MnO₂. **Adina Stegarescu et al (2019)** synthesized MnO NPs from the surface area of biochemically generated was four times that of chemically generated nanoparticles. MnO₂ oregano had the biggest crystalline core (3.4 nm), the biggest pore volume (0.77 cm³/g), the biggest surface area (398 m²/g), and the most Mn ions in low oxidation states. For these reasons, biochemically produced MnO₂ NPs were evaluated for microwave-assisted Trans esterification of grape residue and seeds oil, as well as yeast to get a biofuel end product efficiently. **Sheng Chen et al (2010)** synthesized MnO NPs by a grapheme oxide composite supported by needle like in a water isopropyl alcohol solution using a simple soft chemical method. Intercalation and adsorption of manganese ions onto the GO sheets, followed by crystallization of the crystal species in a double solvent system via dissolution crystallization and oriented attachment mechanism, is proposed as the formation mechanism of these intriguing nanocomposites studied by TEM, Raman, and UV-vis spectroscopy. **Shahram Ghasemi et al (2015)** synthesized MnO NPs using the electrophoretic deposition approach. After that, an electrochemical reduction process is used to reduce the grapheme oxide coating. For the deposition of MnO₂ or ERGO, a two step potential approach and anodic electro deposition approach have been devised. Two potential steps have been used to nucleate and develop manganese oxide on graphene sheets, resulting in homogeneous dispersion of MnO₂ NPs decorated onto ERGO.

2. Conclusion:

CdO NPs and MnO NPs provide a wide range of possible uses due to their unique properties. In this paper we describe how we have been able to encourage progress in Cd and Mn with antibacterial, antimicrobial, Photocatalytic, antibiofilm and antioxidant activities. There have been a number of configurable systems built for large-scale application.

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