



Koneru Lakshmaiah Education Foundation

(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

Accredited by NAAC as 'A++' ❖ Approved by AICTE ❖ ISO 21001:2018 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

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DEPARTMENT OF CHEMISTRY

KLEF/ CHEM / IQAC - STUDENT/ SQ.9/ Alumni Contributions

DETAILS OF ALUMNI CONTRIBUTIONS

KL Chem Neon Lights- Alumni Association

Date: 22-03-2021

Time: 12:00 PM to 1: 00 PM

Link: <https://meet.google.com/ctj-pybf-zie>

Number of faculty attended: 9

Number of students and scholars attended: 30

Number of Alumni attended: 11

Name of the activity: Guest Lecture by alumnus Dr. Mufsir Kuniyil on " NO-doped graphene metal oxide nano composites as catalyst for organic transformations."

Summary:

Graphene is considered a promising catalyst candidate due to its 2D nature, single-atom thickness, zero bandgap and very high surface to volume ratio. Further, graphene oxide (GO) has been used as a catalytic support material for metal/metal oxide nanoparticles due to its tunable electrical properties. In addition, its high chemical stability and ultrahigh thermal conductivity may possibly promote high loading of catalytically active sites. This review article focuses on the recent progress in the catalytic applications of GO especially (i) as catalytic-support material (GO/reduced graphene oxide supported metal/metal oxide nanohybrids) for the green synthesis of biologically relevant molecules, (ii) for metal-free catalysis and (iii) for electrocatalysis, with special focus on graphene contribution to catalytic efficiency. The critical overview and future perspectives are also discussed.



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The screenshot displays a Zoom meeting interface. On the left, a slide titled "Modification of Graphene" is shown, detailing chemical modification, electrostatic field tuning, and heteroatom doping (B, N, P). It includes diagrams of p-type and n-type doping. On the right, a slide titled "NDG@Pd - Synthesis" is shown, illustrating the synthesis of NDG@Pd from Graphene Oxide (GO), Palladium chloride, and Ammonium hydroxide. A legend identifies the components: Carbon (grey), Nitrogen (blue), Oxygen (red), and Palladium (yellow).

Faculty In Charge

Head of the Department