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Journal of Materials Science and Applied Technology

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Editorial

Editorial on Research Trends in Materials Science and Applied Technology

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Materials, especially metallic materials use has surpassed from traditional construction of boilers, power plants, exchangers, reactors and process vessels to Metal-Organic Frameworks (MOFs) which have very wide applications including carbon capture, as adsorbents to catalysts for various chemical processing applications. These materials such as metals, graphene, polymers, fibers, ceramics, glasses and composite materials have versatile applications. Graphene since its invention few decades ago has surpassed all materials in its utilization and applications. Metallic materials, non-metallic materials, composite materials and polymeric materials are extensively used in industry, research and academia. Polymeric materials, especially nanocomposites (Graphene, MXene based) are widely used in food, electronics, batteries, energy storage, wastewater treatment, and automotive [1].

Materials science and applied technology have surpassed many other fields in research, development and industrial applications with more focus on developing materials to increase surface area, reactivity, use as catalysts to applications such as electrical materials and flourishing optical properties. The launch of Journal of Materials Science and Applied Technology aims to cover the latest developments happening in the field of materials science and applied technology. The Journal will cover advanced characterization techniques such as Synchrotron, XRD, XPS, TEM, FESEM, EDS/EDX, ICP-OES, FTIR, Raman and NMR etc. Applied Functional Materials, Biomaterials, Electronics and Optical Materials, Microelectronic Materials, Optical Materials, Microelectronic Materials, Textile Reinforced Materials and Nano Technology and Computing Technology will be covered. Applied Engineering, Applied Chemistry, Applied Physics and Applied Mechanics being other important fields to be covered. Bio composites, green composites, organic polymers, CO2 capturing polymers, Liquid crystal display, thin films and smart devices also being covered. Artificial intelligence has played a key role in the previous decade and is being extensively used in research, industry, academia, and in the latest discoveries and inventions. Artificial intelligence applications in previously stated fields will be given a special focus.

Journal of Materials Science and Applied Technology will be an inclusive new home for materials scientists, technologists, clinicians, academics, researchers, and scientists to exchange ideas, discoveries and latest developments. The launch of the Journal has come at a time when world is facing many challenges such as climate change and global warming. Materials discoveries and materials modifications including MOFs and COFs should focus more on carbon capture and storage applications to mitigate greenhouse gas emissions. Materials should be developed which can absorb more greenhouse gases to bring down pollutants level to pre-industrial levels of 1750s.

REFERENCES

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