Editorial **Open Access**

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Epoxy – the hub for the most versatile polymer with exceptional combination of superlative features

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Epoxy resins and epoxy based materials have experienced significant advancement since their beginning in 1936, when Dr. Castan of Switzerland and Dr. Greenlee of USA succeeded in synthesising the very first bisphenol-A-based epoxy resins. Whether it is the new carbon fibre composite of Boeing's Dreamliner or the thin set terrazzo flooring, epoxy has always been the ideal choice because of its superlative properties and unique chemical composition. Belonging to thermoset family, it is certainly one of the most versatile polymers we see around in composites, aerospace, automotive, marine, sports materials, construction, structures, electrical and electronic systems, biomedical devices, thermal management systems, adhesives, paints and coatings, industrial tooling and other general consumer products. Because of its versatile nature, epoxy is replacing many conventional materials, e.g. epoxy based materials have already replaced wood in majority of the boats and various sports goods.

Over the last 30 years, we are witnessing rise in the popularity of epoxy and epoxy based materials in specialty performance areas and high-technology applications because of the exceptional combination of properties such as toughness, adhesion, chemical and thermal resistance, and good electrical properties. Considering the chemistry of complex epoxy molecule leading to thousands of formulations and its role in materials science and engineering, particularly composite technology, the super polymer still has tremendous scope before its maturization. It is expected that future developments on epoxy based materials will be in new markets for the specialty performance areas and high-value technology applications. The rising popularity of research around epoxy and epoxy based materials is evident from the Figure 1.

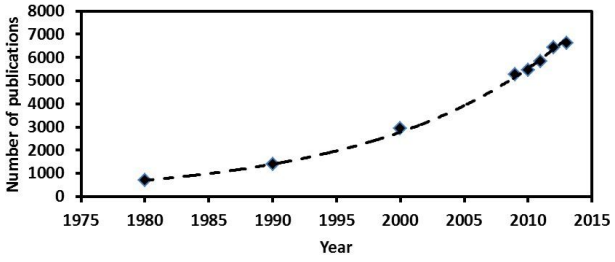

Fig. 1. Research papers published in respective year. *Source: Web of Science, Thomson Reuters, search field: epoxy* (in topic)*.

As the journal editor, here I am honoured to present this new journal Epoxy, which aims to publish original research, critical and comprehensive reviews and short publications from all areas of science, technology and applications related to epoxy (molecule, resin, polymer, hybrid and composites including nanocomposites). The journal is designed to reflect current developments and advances being made in the discipline of epoxy materials and in the formation, production, structure, use, behaviours, properties, performance and technological applications. It intends to serve as the research hub for this versatile polymer. In this only up-to-date and dedicated journal, we intend to focus on new developments and innovations in the area of epoxy and epoxy based materials.

Epoxy is an open-access journal and offers a fast and comprehensive peer-review. To ensure that the journal has the largest possible impact in this early phase, no publication fees will apply until the end of 2015. Special issues on emerging topics are also going to be a part of this exciting new journal. This journal is expected to become a forum engaging the relevant research communities including industry and academia. A LinkedIn® group named "Epoxy - Journal" has been recently formed to foster and encourage discussion and debate on epoxy and connecting industrialists, researchers and scientists.

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Last but not the least, I am very grateful to all my colleagues from the journal's editorial advisory board who are international experts from industry and academia in the area of epoxy and epoxy based materials. I would also like to express my sincere gratitude to my assistant editors, without whom, this effort is not impossible.

I look forward to receiving your papers!