



Functionally Graded Materials: A Critical Review

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Abstract

With the development of new industries and modern processes, many structures serve in thermal environments, resulting in a new class of composite materials called functionally graded materials (FGMs). FGMs were initially designed as thermal barrier materials for aerospace structural applications and fusion reactors. They are now developed for general use as structural components in extremely high-temperature environments. FGMs are now recognized as important composite materials throughout the world. Utilization of FGMs appears to be one of the most efficient and effective materials in achieving sustainable development in Industries. This paper presents a critical review of the existing literature of FGMs. This paper explores following review strands:

1. Introduction.
2. Historical background.
3. Application Areas.
4. Processing techniques of FGMs.
5. Conclusion and Future Scope.

The paper will focus light on above issues and each plays an important role within the FGMs literature and ultimately influences on planning and development practices. It is expected that this comprehensive contribution will be very beneficial to everyone involved or interested in FGMs. .

Keywords: Graded Materials; FGM's.