

# Tushar Kanti Das Roy

Subjects: Materials Science, Ceramics

Contributor: Guadalupe Alan Castillo Rodriguez

Keywords: ceramic technology ; technology ; industry

---

## Basic Information



**Name:** Tushar Kanti Das Roy  
(Jun 1936–)

<b>Birth Location:</b>	Bangladesh
<b>Titles:</b>	Scientific researcher Technologist
<b>Affiliations:</b>	TU-Berlin TU-Clausthal Didier GmbH Peñoles Group Universidad Autónoma de Nuevo León
<b>Honors:</b>	Winner of Merit for Technological Development Nuevo León México 2000 Winner of the UANL Research Award 1998 Winner of Merit for Technological Development Nuevo León México 1994

## 1. Brief Introduction

Tushar K. Das Roy, researcher and technologist, science popularizer, entrepreneur, was born in Bangladesh, India. He graduated from the University of Calcutta, India, where he received his Engineering Degree, later moved to Berlin, Germany and there he obtained his Diplom-Ingenieur at the University of Berlin, Germany; his title of Dr.-Ing. he got it from TU-Clausthal, Germany. He worked as a researcher for Didier GmbH in Wiesbaden, Germany, from 1970 to 1976. In 1977, he joined the Mining Co. in Greece; He subsequently joined the Peñoles Group in Mexico as Technological Research and Development Manager for the REFMECH Refractory Factory, a subsidiary of the Peñoles Group in 1981; in 1989 he joined the Peñoles Group Technological Research and Development Center as Development Manager for New Products and his career as an industrial technologist ended in 1997. Since 1991 he joined as Affiliate Professor and regular member of the Doctorate Committee in the Doctorate in Materials Engineering from the Autonomous University of Nuevo León; From 1997 to the present, he is a Full Time Professor at the Autonomous University of Nuevo León. His research activity focuses mainly on ceramic materials and their application as industrial refractories in manufacturing processes for steel, cement and other ceramic products such as pottery and sanitaryware. He is the author and co-author of more than 100 scientific publications including book chapters, scientific publications in journals of high international impact, exhibitions at international conferences such as UNITECH. To date, he has advised more than 60 undergraduate, master's, and doctoral students.

## 2. Achievements and Career Development

Tushar K. Das Roy works on ceramic materials, particularly in the development of structural refractory materials and in recent years with the incorporation of ceramic nanoparticles to improve their properties. He has also developed new porous refractory structures for applications in refractory products used in the steel refining industry.

His work in the industry stands out for his contributions in the development of refractory products and raw materials that have been implemented in various processes for the production of steel and cement. His contributions in the study of the elastic modulus for the development of industrial refractory bricks based on magnesia spinel, provided a great advance in

the application for rotary kilns in the production of cement. On the other hand, his research through the incorporation of Fe cations in MgO-based refractories through laser sintering, has provided advances in improving the properties of refractory products that can be applied in the slag line in electric arc furnaces for steel production.

Another of his lines of research is the application of nanotechnology through the incorporation of ceramic nanoparticles produced by laser ablation and the development of thin films for the development of new materials with photovoltaic properties, creating a research group at the Autonomous University of Nuevo León, with researchers from India and Mexico. With this research group, progress has been made in the development of new alternative ceramic materials with photovoltaic properties, whose processing causes less pollution to the environment.

## **| Further Reading**

In process

---

Retrieved from <https://encyclopedia.pub/entry/history/show/96428>