Foreword

Ekkard Brinksmeier¹

Published online: 24 November 2017

© International Society for Nanomanufacturing and Tianjin University and Springer Nature 2017

“Nanomanufacturing and Metrology” is a new Journal in the field of manufacturing and launched by the International Society for Nanomanufacturing together with Springer Nature and Tianjin University.

The term nanotechnology was coined in 1974 by Professor Norio Taniguchi who predicted correctly that by the late 1980s, techniques would have evolved to a degree that dimensional accuracy of better than 100 nm would be achievable. Today, manufacturing technologies have further evolved and we are now able to actually use parts with nanometric dimensions and/or nanometric surface tolerances in optics, medicine and bio technologies, semiconductor industries, and many other industrial sectors.

Considering the ever increasing requirements when heading towards smaller dimensions, the manufacturing technologies including machines, tools, control and the environment as well as the nano metrology have to be advanced. Due to the small physical and chemical domains, traditional equipment and methods cannot be scaled down and have to be newly developed. Here scientific research comes into play and the new journal offers to be a common

platform for researches in that field, which is of growing importance.

The editor-in-chief, Professor Fengzhou Fang from Tianjin University, has not only experience as editor-in-chief and editor for other journals, but also he was also the founder of the International Society for Nanomanufacturing. He is also one of the leading experts in the field. Already in 1998 Prof. Fang developed and afterwards verified a new theory for material removal in nanometric cutting which was recognized as a significant contribution to science by the scientific community. He proposed a new method of nano machining of ion-implanted materials (NiIM) in 2009 and has successfully applied it for machining silicon, germanium and other monocrystalline materials, which is one of the most perspective approaches in nanometric machining of brittle materials. Many more achievements followed and today he is the most recognized expert in nanomanufacturing worldwide.

These are ideal conditions that the new journal will soon become the leading journal in the nanomanufacturing field.

Therefore, congratulations on establishing the new journal of Nanomanufacturing and Metrology!

✉ Ekkard Brinksmeier
brinksmeier@iwt.uni-bremen.de

¹ University of Bremen, Bremen, Germany