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LECTURE NOTES

4

**Mechanics of
Advanced Materials**
AMAS Course – MAM'2001
Warsaw, October 8-12, 2001

edited by
Zenon Mróz



**Centre of Excellence for
Advanced Materials and Structures**

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Foreword

The present volume of Lecture Notes results from the AMAS Course *Mechanics of Advanced Materials* (MAM'2001), held in Warsaw, October 8-12, 2001.

The volume contains 8 presentations concerned with mechanics of ceramic-metal interfaces, intermetallic compounds, advanced composites, ceramic materials and composites, laser technology for advanced materials, nano-crystalline structures, surface layers in sintered steels and quantitative description of material microstructure. The topics treated are new and usually not covered in textbooks or standard courses in material science. The course was aimed at uniform presentation of most fundamental topics relevant to the analysis of mechanical and thermal response of modern materials, with relation to their microstructure. The present volume of lecture notes could be useful for researchers in mechanics or material science by providing state-of-art presentations in new areas of research and technological applications.

Zenon Mróz

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