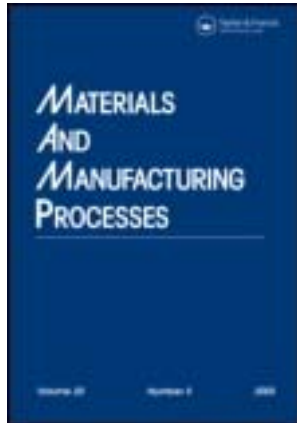


Special Issue for Materials and Manufacturing Processes, An International Journal



Micro-Manufacturing Processes and Applications

Organizer:

Dr. Tugrul Özel (Rutgers University)

The demand for meso-scale (500 μm -10 mm) and micro-scale (0.1-500 μm) products with high aspect ratios and superior surfaces has been rapidly increasing in aerospace, automotive, defense, medical, optical, and micro-electronics packaging industries. There is a growing need for fast, direct, and mass manufacturing of miniaturized functional products from metals, polymers, and ceramics. Unlike established technologies to produce semiconductor products (typical for electronics industry), technologies for mass manufacturing of meso/micro parts and components in metal alloys, polymers and ceramics are still under development, and present a number of research issues and challenges. This special session invites contributions from academia and industry on recent advances and developments in micromanufacturing processes, materials for micro fabrication, miniaturized machine tools, sensors and instrumentation for metrology in order to provide an information exchange among researchers with different experiences. The research topics of the agenda will include (but not limited to):

- Emerging trends in micromanufacturing processes
- Micro machining processes
- Micro forming processes
- Manufacturability of the materials at micro scale
- Multi-scale modeling of deformation processes
- Micro mold design and fabrication
- Modeling and simulation of micro-manufacturing processes
- Design and manufacture of miniature machine tools
- Enabling technologies: metrology, sensors, monitoring and control
- Micro assembly and microfactories
- Applications in aerospace, automotive, defense, medical, optical and micro-electronics packaging industries

Please submit your manuscripts in Microsoft Word format directly to the special issue editor no later than **December 1, 2008**:

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exceed 20 and must be numbered consecutively throughout the paper. Authors should also supply a shortened version of the title suitable for the running head, not exceeding 50 character spaces. Each article should be summarized in an abstract of not more than 100 words. Avoid abbreviations, diagrams, and reference to the text in the abstract.

References

Please cite in the text by number only enclosed in parentheses. At the end of the article, list the references in the order they appear in the text. **Examples:**

Journal: Pimental, D. Insect Population Responses to Environmental Stress and Pollutants. Environmental Reviews 1994, 2 (1), 1-15.

Book: New, T.R. Insects As Predators; New South Wales Univ. Press: Kensington, Australia, 1991; 178 pp.

Works Presented at Meetings and Conferences: Garrone, E.; Ugliengo, O. In Structure and Reactivity of Surfaces, Proceedings of the European Conference, Trieste, Italy, Sept 13-20, 1998; Zecchina, A., Costa, G., Morterra, C., Eds.,: Elsevier: Amsterdam, 1988.

Illustrations

Illustrations submitted (line drawings, halftones, photos, photomicrographs, etc.) should be clean originals or digital files. Digital files are recommended for highest quality reproduction and should follow these guidelines:

- 300 dpi or higher
- Sized to fit on journal page
- EPS, TIFF, or PSD format only
- Submitted as separate files, not embedded in text files

Color illustrations will be considered for publication; however, the author will be required to bear the full cost involved in their printing and publication. The charge for the first page with color is \$900.00. The next three pages with color are \$450.00 each. A custom quote will be provided for color art totaling more than 4 journal pages. **Good-quality color prints should be provided in their final size. The publisher has the right to refuse publication of color prints deemed unacceptable.**

Tables and Figures

Tables and figures (illustrations) should not be embedded in the text, but should be included as separate sheets or files. A short descriptive title should appear above each table with a clear legend and any footnotes suitably identified below. All units must be included. Figures should be completely labeled, taking into account necessary size reduction. **Captions should be typed, double-spaced, on a separate sheet. All original figures should be clearly marked in pencil on the reverse side with the number, author's name, and top edge indicated.**