

Special Issue on

Precision Abrasive Technology of Difficult-to-Machine Materials

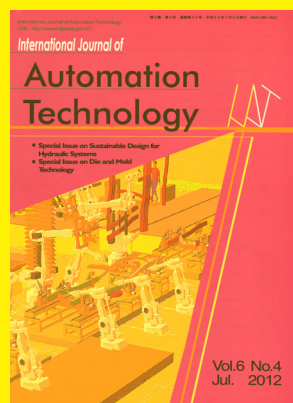
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Prof. Dr. Xipeng Xu, Huaqiao University, China

The need for difficult-to-machine materials is increasing for opt-electric devices, semiconductors, automobiles, aircraft, and medical devices. Optical glass lenses have been molded with hard molds made of ceramics, such as tungsten carbide (WC) and silicon carbide (SiC), and it is most important to reduce form deviation and surface roughness in these molds. Single crystalline SiC is expected to be applied to semiconductors for the power module devices of automobiles, trains, and electrical devices. Nickel-based super alloys, Ti alloys, CFRP, hardened steels, and other materials are widely used in the aerospace, automobile, and chemical industries because of their superior properties, such as their high operating temperatures or superior specific strengths. Ti alloys are used in medical applications involving bones, dental implants, etc. In order to increase the performance and reduce the cost of these applications, the development of high-precision and high-performance abrasive technologies is very important. This special issue of the IJAT invites papers in the following areas:

- Grinding, finishing, deburring, lapping, polishing, honing, abrasive jet machining, etc.
- Grinding machines/systems and abrasive machines
- Abrasives and tools, tribology between tool and workpiece
- Truing, dressing, ELID (Electrolytic In-Process Dressing) for grinding
- Silicon wafers and hard/brittle materials processing
- Loose/suspended abrasive particle machining/polishing
- Hybrid super-finishing processes
- Precision/ultra-precision, micro-machining, nano-machining, super finishing/nano-surfacing
- Surface characterization/evaluation of surfaces processed with abrasives
- Metrology for precision/ultra-precision machining and in-process measurement/monitoring
- Environmentally friendly coolants/cooling
- Teaching and learning innovations

*Speedy Review (1-2months for the first review)

*IJAT is indexed in Scopus; Compendex (Ei-Index) *日本語でも投稿できます (採録後、翻訳され英文で出版されます)



Pages and important deadlines:

Number of pages: 8 pages (but no limit) / 8,000 words
Manuscripts should be in IJAT formats of Microsoft Word, TeX.

Submission Deadline: **April 30, 2018**

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