Estimation of sleep cycle and quality based on nonlinear analysis of heart rate variability  p. 181
Development of innovative machine elements using electron, atom, ion and molecule (synthesis of thin film with super-high water resistance)  p. 187
Pin-on-disk study of head wear in contact recording systems  p. 193
Analytical study of nanodynamics of a flying head slider considering the van der Waals forces for ultrathin multilayers  p. 197
Mathematical modeling and stability criteria for ultra-thin layered gas-liquid interface  p. 199
MEMS-based active-head sliders for flying height control in hard disk drives  p. 201
Behavior of molecularly thin lubricant films for contact sliders in hard disk drives  p. 203
Evaluation of the tensile strength properties by the difference in the degree of polymerization of PVA gels  p. 207
Effects on particle diameter and magnetic force of magnetic ultra-fine particle that depend on surface-active agents and pH condition in its synthesis  p. 213
A new application of synchrotron radiation to carbon nanotubes - shape control and purification  p. 219
Pressure sensitive luminophores for micro- and nano-systems  p. 225
Microfabrication of functional microtool using photo-crosslinkable resin  p. 231
Fabrication of microfluidic chip and its application  p. 237
Study on distribution of electrokinetic microfluid in rectangular microchannel  p. 243
Electrostatic droplet formation and ejection of colloid  p. 249
Fiber wobbling method : novel method for measuring rheological properties of molecularly thin liquid films  p. 255
Thickness and surface force distributions in spreading region of molecularly thin lubricant film on magnetic disks  p. 259
Synthesis of tri-functional PFPE lubricant and its spreading characteristics on a hard disk surface  p. 261
Nanoscale lubricants for magnetic disk drives  p. 265
Development of a 3-DOF silicon piezoresistive micro accelerometer  p. 271
A dual axis thermal convective silicon gyroscope  p. 277
Sensitivity adjustment based on resonant frequency change for tactile sensing  p. 283
Current measurement with the application of a non-contact thermometer  p. 289
Numerical analysis for the effect of Reynolds number on propulsive performance of a submerged wiggling micromachine  p. 295
Automated micro manipulation system with protein crystal  p. 301
Control waveforms applied to piezo elements used in a miniature robot  p. 307
Self heating of piezoelectric actuators : measurement and compensation  p. 313
Spiral type magnetic micro actuators for medical applications  p. 319
Development of magnetic flux leakage pipe inspection robot using hall sensors  p. 325
Automatic fabrication system for plastic microfluidic chips  p. 331
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characterization of microfabricated microneedles for sampling</td>
<td>p. 337</td>
</tr>
<tr>
<td>Image-based visual servo for micromanipulation: a multiple-view and</td>
<td>p. 341</td>
</tr>
<tr>
<td>multiple-scale approach</td>
<td></td>
</tr>
<tr>
<td>Controller design for DC motor drives using multi-objective optimization evolutionary algorithms</td>
<td>p. 347</td>
</tr>
<tr>
<td>Humanoid robot control based on reinforcement learning</td>
<td>p. 353</td>
</tr>
<tr>
<td>Humanoid robot navigation by probabilistic multiple stereo matching</td>
<td>p. 359</td>
</tr>
<tr>
<td>CPG-based motion generation for bipedal robot using stochastic</td>
<td>p. 365</td>
</tr>
<tr>
<td>optimization</td>
<td></td>
</tr>
<tr>
<td>Structured light 2D range finder for simultaneous localization and</td>
<td>p. 371</td>
</tr>
<tr>
<td>map-building (SLAM) in home environments</td>
<td></td>
</tr>
<tr>
<td>International micro robot maze contest</td>
<td>p. 377</td>
</tr>
</tbody>
</table>

*Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.*