

## Ultraprecision Machining based on Physics and Chemistry

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The paper overviews research performed at “Osaka University, Ultra Precision Machining Research Center.” It explains in detail the historical background, motivation of the research, and physical concepts of new ultraprecision machining methods; i.e., elastic emission machining (EEM), atmospheric pressure plasma chemical vaporization machining (P-CVM) and hydroxyl electrochemical machining (H-ECM).