



1. Title:	Ultra Low Thermal Expansion material "CLEARCERAM®-Z" for EUVL application
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3. Abstract body:

OHARA Inc. has been supplying low thermal expansion glass-ceramics material products "CLEARCERAM®-Z" series. For EUVL applications, CLEARCERAM®-Z HS was found to be most suitable among materials in the series in the past investigations, especially for the substrates of the stepper mirror, Photomask and structural component. In this presentation, we attempt to update the status of OHARA's development activities for EUVL application with CLEARCERAM®-Z HS and new material(s). The presentation is to include; Latest investigation results of inter/intra lot uniformity of material properties, surface finish and precision CTE metrology system at OHARA.