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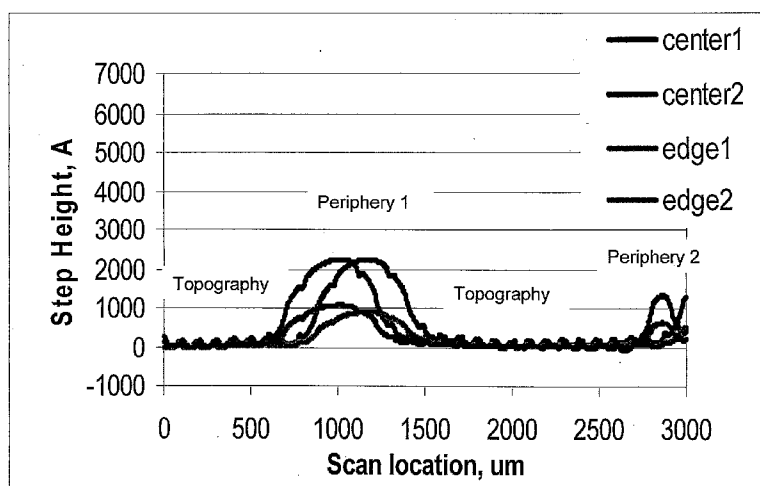
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(54) Title: PLANARIZATION FILMS FOR ADVANCED MICROELECTRONIC APPLICATIONS AND DEVICES AND METHODS OF PRODUCTION THEREOF



$\Delta \text{Thickness}_{\text{max, topography-periphery}} = 230 \text{ nm}$

(57) Abstract: A planarization composition is disclosed herein that comprises: a) a structural constituent; and b) a solvent system, wherein the solvent system is compatible with the structural constituent and lowers at least one of the intermolecular forces or surface forces components of the planarization composition. A film that includes this planarization composition is also disclosed. In addition, another planarization composition is disclosed herein that comprises: a) a cresol-based polymer compound; and b) a solvent system comprising at least one alcohol and at least one ether acetate-based solvent. A film that includes this planarization composition is also disclosed. A layered component is also disclosed herein that comprises: a) a substrate having a surface topography; and b) a planarization composition or a film such as those described herein,

wherein the composition is coupled to the substrate. Methods of forming a planarization compositions are also disclosed herein that comprise: a) providing a structural constituent; b) providing a solvent system, wherein the solvent system is compatible with the structural constituent and lowers at least one of the intermolecular forces or surface forces components of the planarization composition; and c) blending the structural constituent and the solvent system to form a planarization composition. Methods of forming a film are also disclosed that comprise: a) providing a planarization composition such as those disclosed herein; and b) evaporating at least part of the solvent system to form a film.

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