METHOD FOR FORMING A HORIZONTAL SURFACE SPACER AND DEVICES FORMED THEREBY

ABSTRACT

The present invention provides a method (100) for forming self-aligned spacers on the horizontal surfaces while removing spacer material from the vertical surfaces. The preferred method uses a resist that can be made insoluble to developer by the use of an implant. By (104) conformally depositing the resist over a substrate having both vertical and horizontal surfaces (106), implanting the resist (108), and developing the resist, the resist is removed from the vertical surfaces while remaining on the horizontal surfaces. Thus, a self-aligned spacer (502) is formed on the horizontal surfaces while the spacer material is removed from the vertical surfaces. This horizontal-surface spacer (502) can then be used in further fabrication. The preferred method can be used in many different processes where there exists a need to differentially process the vertical and horizontal surfaces of a substrate (202).

Fig 1

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