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Process latitudes in projection printing

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ABSTRACT

We have developed a simulation package to address a wide variety of process latitude issues. We demonstrate its versatility by studying three examples: (i) process latitude degradation due to "notching", (ii) line width dependence of a newly developed negative I-line chemically amplified resist on baking time, and (iii) line width control of an exposed X-ray 0.5 μ line as a function of baking time. A powerful all-pupose 3D dissolution algorithm has been developed for this purpose. It is the only dissolution algorithm capable of handling changes of topology of the dissolution surface.