## **Optimal Temperature Profiles for Post-Exposure Bake of Photoresist**

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In this paper it is shown how to compute optimal temperature profiles for post-exposure bake of photo-resist. The profiles are optimal in the sense that the worst case non-uniformity of the dissolution rate in the photo-resist is minimized. This yields uniform development profiles, which make over-development unnecessary. The optimal strategy turns out to be to heat and cool with maximum speed. This means that the only variable that remains to optimize in each specific case is the total time of baking. This is a significant reduction in optimization complexity, and it agrees with common industrial practice.

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