Enhanced Lift-Off Using Toluene and Chlorobenzene for a Single-Step Positive AZ Photoresist Process-Flow

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Abstract. In this article, we present a process that enables the use of the lift-off metallization technique with ultraviolet irradiation of one layer of photoresist type AZ® 5214E and 4562. Different thickness of photoresist layer was prepared and various time of soaking to toluene and chlorobenzene were considered. The described process consists of soaking the photoresist layer for a certain period of time in either chlorobenzene or toluene before resist's exposure. After developing, resist profiles with overhangs suitable for shaping the metal layer can be obtained well such as the lift-off process. We describe here possible benefits and disadvantages of using maskless photolithography with selected photoresists in connection with curing top layer of photoresist.

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