Late 1950's

Negative type photoresist

~ Equipment & Materials Table of Contents ~

The first photolithography technology was developed in 1955 at Bell Telephone Laboratories. Jules Andrus and Walter L. Bond formed highly accurate micro patterns of photoresist on the oxide film on the silicon wafer to form the opening pattern for the formation of n-type and p-type impurity diffusion layers, by applying photo-engraving technology for printed circuit boards. Eastman Kodak's KPR (Kodak Photoresist) was used as the photoresist. KPR was developed in 1950 for the photographic printing plate for newspaper printing, and it was applied to the formation of printed boards and semiconductor microfabrication. It is based on cyclic structure rubber material to which photosensitive material is added [1]. It became one of the key steps in the evolution of planar process to integrated circuit technology.

References:

【1】Louis M Minsk, etal, “US2610120:"
"Photosensitization of polymeric cinnamic acid esters (US 2610120 A)"

Version 2022/5/11