**FOR IMMEDIATE RELEASE**

# RASIRC Granted New Patent for Removal of Ashable Hard Mask via a Hydrogen Peroxide Plasma Etch Process

**San Diego, CA – March 6th, 2025 – RASIRC**, the leader in hydrogen peroxide gas delivery for semiconductor manufacturing, announces the granting of a new patent for the removal of ashable hard masks using hydrogen peroxide plasma. This patent marks a significant advancement in plasma technology, driving progress in next-generation microelectronics.

OES data using BRUTE® Peroxide shows that $H_2O_2$ plasma generates at least 10 times higher hydroxyl (OH) radical density compared to $O_2$ and $H_2O$ plasmas. OH radicals facilitate ligand exchange with organics, while oxygen radicals primarily drive combustion reactions.

Traditional oxygen-based plasmas and combustion reactions can cause unwanted etching and damage to underlying materials. Dense hydroxyl radicals provide superior selectivity, protecting delicate structures in advanced semiconductor devices. Gentler etching without combustion reactions minimizes reactive byproducts, leading to cleaner etching and reduced contamination-related yield losses.

Patent No.: US-12057320-B2

## About RASIRC

RASIRC transforms gas and liquid delivery for semiconductor manufacturing. BRUTE® Hydrazine is the only semiconductor-grade hydrazine, enabling low-temperature, high-purity nitride film deposition. Learn more at www.rasirc.com.

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