



QMS

HAL IMP End Point Detector - Materials Guide

Summary

The interfaces listed below can be clearly identified using the HAL IMP end point detector. This list is not exclusive, for other applications please consult the factory

Manufactured in England by:

HIDEN ANALYTICAL LTD
420 Europa Boulevard, Warrington, WA5 7UN, England
t: +44 (0) 1925 445225 f: +44 (0) 1925 416518
e: info@hiden.co.uk w: www.HidenAnalytical.com

INTERFACE	APPLICATION EXAMPLE
Ga/Ni	GaAs etching with Ni mask. Signal identifies Ni mask exhaustion.
Si/Ga	Identification of SiO ₂ interface on III-V semiconductor.
Au/Cr/Al	Au/Cr track identification on aluminium substrates.
Au/Ti/Ga	Precise definition of Au/Ti electrical contacts in GaAs.
Mo/Ge	Precise definition of Mo/Ge interfaces in multilayer Mo/Ge structures.
Al/In	Identification of the interface between two semiconductors Al In As/InP.
Ga/In	Identification between Ternary (GaInAs), binary (InP) and Quarternary (GaInAsP) structure by magnitude of the Ga signal.
Ga/In	Detection of individual wells from multiquaternary well structure in InP/30 x (GaInAs/InP) InP.
Al/Ga	To etch down to the interface between two layers of AlGaAs separated by a 79 Å GaAs well. The Al signal clearly identified the sandwich.
Y/Pr	To identify the interface between two high temperature superconductor materials Y Ba ₂ Cu ₂ O and Pr Ba ₂ Cu ₃ O ₇ .
Y/Ba/Cu/Mg	Identification of separate layers in multilayer high temperature superconductor materials.
NiCr/Cu/NiFe/SiO ₂	Magnetic disc sensor head manufacture.

A list of elements identified in the applications above is:

Gallium, Titanium, Silicon, Gold, Chromium, Aluminium, Indium, Molybdenum, Germanium, Itrium, Praseodymium, Barium, Copper, Nickel, Iron, Platinum