

Preface

Introduction

In my opinion, failure analysis (FA) is one of the best engineering jobs in the factory. Challenges of the job turn successful analysts into Renaissance Engineers. These are engineers who will be powerful contributors in future jobs, whatever their specialty, because they have seen the whole product: its theory, its structural detail, its materials, its applications—all the way from design to field reliability.

Failure analysts strive to do scientific work of quality while immersed in a business environment emphasizing quantity and time pressure. This has changed the face of FA over the years. Failure analysis is electronic forensics, occupying the hinterland between production manufacturing and scientific discovery.

Failure analysis is both multidisciplinary and cross-functional, with many labs attempting to simultaneously satisfy information needs covering a spectrum from bona fide inventions to timely responses for marketing purposes. Both are important.

The complete satisfaction of these information customers, with their widely variant expectations, continues to be a consummate FA management challenge.

Your engineers can be more successful when they become involved in a forum in which they can develop professional alliances that help them solve complex problems in the FA arena. They can be more successful when they have FA-specific information on their desk, in the form of our proceedings, desk reference, and CD index.

The Information Business (ISTFA/ASM History)

The International Symposium for Testing and Failure Analysis (ISTFA) organizing committee has chartered itself to dispense immediately useful electronics failure analysis information, relevant to the workplace needs of your people. Immediate benefits come from your engineers discussing improvements and listen-

ing to experiences of others, which can be identified and implemented in their FA procedures. Archived information is achieved through the published proceedings of each event. This is the reason the ISTFA event exists.

The International Society for Testing and Failure Analysis began in 1975 as a Saturday meeting of technicians and engineers at the TRW plant in Redondo Beach in Los Angeles, California. For its first four years of existence, the meeting was known as the Advanced Techniques in Failure Analysis (ATFA). The purpose of the meeting was to discuss problems encountered with the failure analysis of electronic components which were found to be bad at incoming inspection, which had failed during reliability evaluations, or which had failed in the field.

The conference name was changed to International Symposium for Testing and Failure Analysis (ISTFA) in 1980. It was managed by an independent group from 1982 to 1986. In 1986, ISTFA was purchased by ASM, The Materials Information Society. The ISTFA Organizers and ASM share common ground in the areas of metallurgy and failure analysis. There also exists a common goal of information sharing and dissemination for the benefit and improvement of these disciplines and industry.

To Summarize

Expectations for failure analysts are high, but so are our standards for the International Symposium for Testing and Failure Analysis (ISTFA). We have established that the analyst needs ready-access to a wide spectrum of scientific information to be successful in their high endeavor. The information must be timely and targeted to the problems and challenges with which the analyst deals on a daily basis. The ISTFA Organizers and ASM are committed to accomplishing this; this issue of the Proceedings is an example.

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