

Professional Biography

ALAN SPOOL retired in early 2024, but prior to that was a Senior Technologist in Analytical Sciences at the Great Oaks facility of the Western Digital Corporation located in San Jose, CA. In his 38 years at IBM/HGST/WD, Alan has established himself as a surface analyst with particular expertise in TOF-SIMS.

He worked in an industrial setting, but in addition to the practical pursuits an industrial career necessitates, developed expertise in the fundamentals of his technique. His publications and lectures include fundamental works on interpreting TOF-SIMS spectra with an emphasis on likely ion formation processes, alongside application related work. After successfully applying RBS to materials studies at IBM's hard disk drive division, he managed the purchase of the first TOF-SIMS instrument in this industry in 1990, installing the instrument in 1991. Starting then, he has gained experience operating a variety of instruments including the TRIFT I, the TRIFT II, the TRIFT III, the nanoTOF II, the TOF-SIMS 5, and the M6. He has applied the technique to the solution of many problems at his company including failure analysis, materials characterization, contamination analysis, qualitative and quantitative analysis of trace elements and unknown materials characterization, among others.

His book, "The Practice of TOF-SIMS" published in 2016 is a highly readable summary of his knowledge, both practical and fundamental, covering as it does details of instrument designs, practical methods for spectral interpretation, and insights into the fundamentals of the technique. The book has been rewritten and repurposed, becoming the starting point for the wiki being hosted by the NA SIMS Society, which Alan continues to lead efforts to expand and maintain.

Since retirement, Alan has remained active in the SIMS community, attending both the international SIMS conference in La Rochelle in 2024 and the NA SIMS workshop in Northridge in 2025, joining the NA-SIMS board shortly after.