

1. Record Nr.	UNINA9910819453503321
Autore	Voigtman Edward <1949->
Titolo	Limits of detection in chemical analysis // Edward Voigtman
Pubbl/distr/stampa	Hoboken, New Jersey : , : John Wiley & Sons, , 2017
ISBN	1-5231-1494-0 1-119-18898-9 1-119-18900-4
Descrizione fisica	1 online resource (409 pages) : illustrations (some color)
Collana	Chemical analysis series
Disciplina	543/.19
Soggetti	Chemistry, Analytic
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Background -- Chemical measurement systems and their errors -- The response, net response and content domains -- Traditional limits of detection -- Modern limits of detection -- Receiver operating characteristics -- Statistics of an ideal model CMS -- If only the true intercept is unknown -- If only the true slope is unknown -- If the true intercept and true slope are both unknown -- If only the population standard deviation is unknown -- If only the true slope is known -- If only the true intercept is known -- If all three parameters are unknown -- Bootstrapped detection limits in a real CMS -- Four relevant considerations -- Neyman-Pearson hypothesis testing -- Heteroscedastic noises -- Limits of quantitation -- The sampled step function -- The sampled rectangular pulse -- The sampled triangular pulse -- The sampled Gaussian pulse -- Parting considerations.