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	Titolo	Chemometrics with R [[electronic resource]] : Multivariate Data Analysis in the Natural and Life Sciences / / by Ron Wehrens
	Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2020
	ISBN	3-662-62027-8
	Edizione	[2nd ed. 2020.]
	Descrizione fisica	1 online resource (XVI, 308 p. 111 illus., 82 illus. in color.)
	Collana	Use R!, , 2197-5736
	Disciplina	543.015195
	Soggetti	Statistics
		Chemoinformatics
		Bioinformatics
		R (Computer program language)
		Statistics for Life Sciences, Medicine, Health Sciences
		Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences
		Statistical Theory and Methods
		Computer Applications in Chemistry
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Introduction. - Data -- Preprocessing -- Principal Component Analysis -- Self-Organizing Maps. - Clustering -- Classification -- Multivariate Regression. - Validation -- Variable Selection -- Chemometric Applications.
	Sommario/riassunto	This book offers readers an accessible introduction to the world of multivariate statistics in the life sciences, providing a comprehensive description of the general data analysis paradigm, from exploratory analysis (principal component analysis, self-organizing maps and clustering) to modeling (classification, regression) and validation (including variable selection). It also includes a special section discussing several more specific topics in the area of chemometrics, such as outlier detection, and biomarker identification. The corresponding R code is provided for all the examples in the book; and scripts, functions and data are available in a separate R package. This

second revised edition features not only updates on many of the topics covered, but also several sections of new material (e.g., on handling missing values in PCA, multivariate process monitoring and batch correction). .