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(54) **Mapping-data analyzing method and apparatus**

(57) It is an object of the present invention to provide a mapping-data analyzing method that can display a map in which sufficient information is extracted from the spectra of obtained mapping data to enable objective analysis. The mapping-data analyzing method of the present invention is used for analyzing mapping data obtained by measuring, with a spectrometer apparatus, spectra at a plurality of points on a specimen surface. The method comprises a principal-component calculating step and a grouped-map display step. In the principal-component calculating step, spectral data obtained at each point on the specimen surface is defined as an individual sample and principal component analysis, in which values at a plurality of wavenumbers of each spectral data set serve as variables, is performed to calculate the scores of a plurality of principal components for each individual sample. In the grouped-map display step, the points on the specimen surface are divided into a plurality of groups based on the scores of a plurality of principal components calculated in the principal-component calculating step and a two-dimensional or three-dimensional map indicating to which group each point on the specimen surface belongs is displayed on a display device.

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DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	"Chapter 8 : Visualization in Score Plots" In: Paul Geladi et al: "Multivariate Image Analysis", 1 January 1996 (1996-01-01), Wiley, XP008135371, ISBN: 978-0-471-93001-6 pages 157-173, * page 157, paragraph 1 - paragraph 4; figures 8.4, 8.5 * * page 168, last paragraph - page 171, paragraph 2; figures 8.16-8.18 * -& "Chapter 11 : Miscellaneous Examples" In: Paul Geladi et al: "Multivariate Image Analysis", 1 January 1996 (1996-01-01), Wiley, XP008135373, ISBN: 978-0-471-93001-6 pages 215-233, * page 229, last paragraph - page 233, column 1; figures 11.9-11.19 * -& "Chapter 6 : Principal Component Analysis on Multivariate Images" In: Paul Geladi et al: "Multivariate Image Analysis", 1 January 1996 (1996-01-01), Wiley, XP008135829, ISBN: 978-0-471-93001-3 pages 107-135, * page 109, paragraph 2 - page 110, column 1; figures 6.6, 6.14; table 6.4 * ----- -/--	1-19	INV. G06K9/62 G06K9/00 G01N21/00
			TECHNICAL FIELDS SEARCHED (IPC) G06K

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	13 May 2011	Granger, Bruno

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13

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13

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T	"Chapter 11 : Evaluating" In: Siegfried Wartewig: "IR and Raman Spectroscopy: Fundamental Processing", 1 January 2003 (2003-01-01), Wiley, XP002634054, ISBN: 3-527-30245-X pages 125-158, * page 154 *	4-7	
T	Freek D. van der Meer: "Pixel-based, Stratified and Contextual Analysis of Hyperspectral Imagery" In: Steven M. de Jong et al.: "Remote Sensing Image Analysis", 1 January 2004 (2004-01-01), Kluwer, XP002636778, pages 153-180, * page 155, paragraph 2 - page 172, last paragraph *	4-7,11, 13,14	TECHNICAL FIELDS SEARCHED (IPC)

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13

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