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A smart and portable solution for heavy metals concentration measurements(Conference Paper)

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Краткое описание

This paper presents a measurement solution for heavy metals concentrations. The proposed solution can be installed in stand-alone environmental monitoring stations and can incorporate measurement units for other water quality parameters such as temperature, conductivity, salinity, pH, dissolved oxygen and turbidity. A fully-automated monitoring station based on a low-cost potentiostat unit is presented together with a set of components and devices that can be used to provide auto calibration capabilities. A special attention is dedicated to data interpolation based on ANN curve fitting techniques and the interpolation results are compared with the ones obtained with traditional LMS polynomial interpolation techniques. © 2007 IEEE.

Актуальность темы SciVal

Тема: Thermistors | Signal Conditioning Circuits | Thermocouples

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Ключевые слова автора

[Accuracy](#) [Auto-calibration](#) [Smart sensing](#) [Water quality](#)

Включенные в указатель ключевые слова

Engineering controlled terms:

[Environmental engineering](#) [Interpolation](#) [Parameter estimation](#) [Polynomials](#) [Smart sensors](#) [Water quality](#)

Engineering uncontrolled terms:

[Autocalibration](#) [Heavy metals concentrations](#) [Polynomial interpolation](#) [Water quality parameters](#)

Engineering main heading:

[Heavy metals](#)

Цитирования в 2 документах

Di Natale, C. , Dini, F. , Scozzari, A.
Non-conventional electrochemical and optical sensor systems

(2016) *Handbook of Environmental Chemistry*

Pereira, M.D. , Viegas, V. , Banha, C.

Advanced signal processing techniques to measure and classify non-nutritive suction of premature and newly born babies

(2009) *Proceedings of the 5th IEEE International Workshop on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications, IDAACS'2009*

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