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BOOK OF ABSTRACTS

Karel Vojíř, Martin Rusek, Martina Tóthová (Eds.)

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THE TABLE OF CONTENTS

WHERE ARE THE BARRIERS FOR HIGHER FREQUENCY OF SAFE EXPERIMENTAL ACTIVITIES IN SECONDARY CHEMISTRY EDUCATION

Martin Bílek, Kateřina Chroustová, Martin Rusek, Pavel Beneš, Petr Adolf Skřehot, Zdeněk Hon

Abstract

The contribution describes the starting points of the BEDOX project focusing on safe laboratory practice in general chemical education. The aim of the project is to analyse the current state of pedagogical practice and curricular documents in the field of safe chemistry laboratory practice in the Czechia and based on the results to prepare an electronic database of videos presenting a selection of safe chemical experiments usable in the school laboratory. The analyse of the current state of practical teaching of chemistry as general-educating subject, mainly experimental activities of pupils and their teachers in schools, focusing both on valid legislation and on the actual observance of safety requirements, was performed on the basis of an anonymous questionnaire. The stratified research sample consisted of 354 teachers. Main results speak about problems with appropriate time and place for experimental activities. Barriers are also unclear legislative conditions and appropriate teachers' education. Criticism of the respondents is oriented to lack of courses oriented to safe school chemical experiments in pre- and post-gradual teachers' education. At the same time, the working procedures identified by teachers as risky are captured in the prepared electronic video-database in accordance with the requirements of the new Czech norm.

Keywords

Safety; experimental activity; chemistry education

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