



Slovak Society of Chemical Engineering  
Institute of Chemical and Environmental Engineering  
Slovak University of Technology in Bratislava

## PROCEEDINGS

51<sup>st</sup> International Conference of the Slovak Society of Chemical Engineering SSCHE 2025

Hotel DRUŽBA  
Jasná, Demänovská Dolina, Slovakia  
May 27 - 30, 2025

Editors: Assoc. Prof. Mário Mihaľ

ISBN: 978-80-8208-158-2, EAN: 9788082081582

Published by the Faculty of Chemical and Food Technology Slovak Technical University in Bratislava in Slovak Chemistry Library for the Institute of Chemical and Environmental Engineering; Radlinského 9, 812 37 Bratislava, 2024

Krzyzostaniak, M.: Why we waste the time of educated people on trivial activities - how to know more by doing less, Editors: Mihaľ, M., In *51st International Conference of the Slovak Society of Chemical Engineering SSCHE 2025*, Jasná, Demänovská Dolina, Slovakia, 2025.

## **Why we waste the time of educated people on trivial activities - how to know more by doing less**

Marcin Krzyzostaniak

*Mettler-Toledo, s.r.o., Hattalova 12, 831 03 Bratislava, Slovakia*

*e-mail: marcin.krzyzostaniak@mt.com*

The aim of the presentation is to present the limitations in the work of scientists resulting from the traditional organization of the synthesis laboratory and the lack of continuous monitoring of reactions and conducted processes. Most of the work requires many manual activities without providing answers - data for scientific considerations. At the same time will be presented the possibilities of increasing the efficiency and effectiveness of conducted research and effective use of the most important attribute of a scientist - his mind.

The main limitations of scientists when conducting reactions are:

- incomplete possibility of reaction control and uncertainty as to the actual impact of individual process parameters,
- necessary presence of staff to change parameters and register events, which may pose a health risk, and at the same time limits the number of experiments performed
- the need to wait for the results of off-line analyses to learn the results of the experiment

In a modern laboratory, the researcher can conduct much more successful synthesis, reducing the time (and number of experiments) needed to complete the research. And the time and data obtained can be used to ask the right questions:

- what happened?
- what did not happen?
- why?
- what to change to make it happen?