

Jméno, příjmení, titul žadatele:

Given name, surname, academic degree of student:

Tomáš Smejkal, Ing.

Seznam publikovaných prací:

List of publications:

Články v indexovaných časopisech Web of Science:

Articles in Web of Science indexed journals:

- Publikace k tématu disertační práce:

Publications on the topic of the dissertation:

1. T. Smejkal, J. Mikyška. Efficient solution of linear systems arising in the linearization of the VTN-phase stability problem using the Sherman-Morrison iterations, *Fluid Phase Equilibria* 527:112832, 2021. (0 citations)
2. T. Smejkal, J. Mikyška, J. Kukul. Comparison of modern heuristics on solving the phase stability testing problem, *Discrete & Continuous Dynamical Systems – S* 14(3):1161–1180, 2021. (1 citation)
3. T. Smejkal, J. Mikyška. VTN-phase stability testing using the Branch and Bound strategy and the convex-concave splitting of the Helmholtz free energy density, *Fluid Phase Equilibria* 504:112323, 2020. (2 citations)
4. T. Smejkal, J. Mikyška. Unified presentation and comparison of various formulations of the phase stability and phase equilibrium calculation problems, *Fluid Phase Equilibria* 476:61–88, Part B, 2018. (10 citations)
5. T. Smejkal, J. Mikyška. Phase stability testing and phase equilibrium calculation at specified internal energy, volume, and moles, *Fluid Phase Equilibria* 431:82–96, 2017. (20 citations)

- Ostatní:

Other:

1. T. Smejkal, A. Firoozabadi, J. Mikyška. Unified Thermodynamic Stability Analysis in Fluids and Elastic Materials, *submitted to Fluid Phase Equilibria*, 2021.
2. T. Smejkal, J. Mikyška, R. Fučík. Numerical modelling of adsorption and desorption of water vapor in zeolite 13X using a two-temperature model and mixed-hybrid finite element method numerical solver, *International Journal of Heat & Mass Transfer* 148:119050, 2020. (3 citations)

Příspěvky ve sbornících indexovaném Web of Science:

Contributions in Web of Science indexed proceedings:

- Publikace k tématu disertační práce:

Publications on the topic of the dissertation:

- Ostatní:

Other:

1. M. Beneš, P. Eichler, J. Klinkovský, M. Kolář, T. Smejkal, J. Solovský, P. Strachota, A. Žák, J. Hrdlička, P. Skopec. CFD Simulation and Experimental Analysis of Fluidization in a Model of an Oxyfuel Fluidized Bed Boiler. In: *Proceedings of the Conference Algoritmy 2020*. Vydavatelství SPEKTRUM, Slovak University of Technology in Bratislava, 2020. pages 101–110.

Příspěvky v ostatních sbornících:**Contributions in other proceedings:**

- Publikace k tématu disertační práce:
Publications on the topic of the dissertation:
 1. T. Smejkal, J. Mikyška. Multi-phase compressible compositional simulations with phase equilibrium computation in the VTN specification. In: Computational Science – ICCS 2021. Cham. Springer International Publishing, 2021. pages 159–172.
 2. T. Smejkal. Efficient solution of linear systems arising in the linearization of the VTN-phase stability problem using the Sherman-Morrison iterations. In: Doktorandské dny 2020. Praha: CTU FNSPE. Department of Mathematics, 2020. pages 149–150.
 3. T. Smejkal. Unified presentation and comparison of various formulations of the phase stability and phase equilibrium calculation problems. In: Doktorandské dny 2018. Praha: CTU FNSPE. Department of Mathematics, 2018. pages 139–140.
- Ostatní:
Other:
 1. T. Smejkal. Numerical Modelling of the Adsorption and Desorption of the Water Vapor in the Zeolite 13X. In: Doktorandské dny 2019. Praha: CTU FNSPE. Department of Mathematics, 2019. pages 165–166.

Publikace pro studenty:**Publications for students:**

1. Tomáš Smejkal. Poznámky ke cvičení z předmětu Vybrané partie z matematiky, published only online. Collection of exercises in chosen parts of mathematics for students FNSPE CTU in Prague.
2. Kolektiv autorů. Řešená sbírka příkladů k předmětu Matematická analýza 1, published only online. Collection of exercises in calculus for students FNSPE CTU in Prague.