ブレンデッドラーニングに基づく総合的な物理化学の学習： 新しい大学学生実験の試み
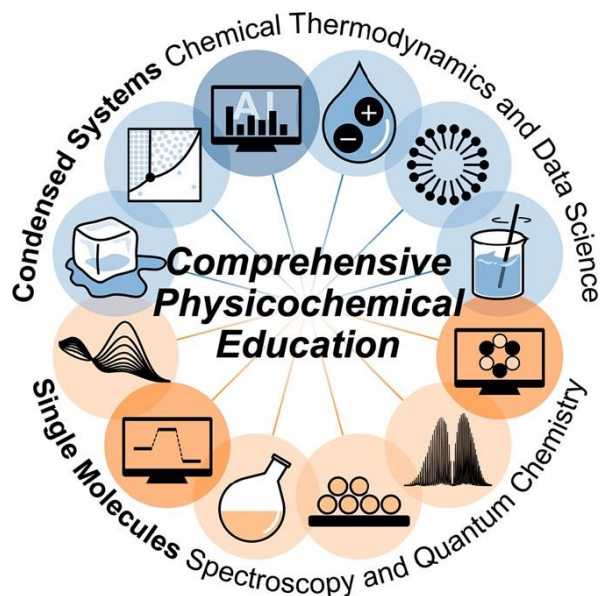
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Comprehensive Physical Chemistry Learning Based on Blended Learning: A New Laboratory Course ([1]*Department of Applied Chemistry, Faculty of Science and Engineering, Chuo University*, [2]*Department of Theoretical and Computational Molecular Science, Institute for Molecular Science*) ○Hirotoshi Mori[1,2], Nahoko Kuroki[1]

Keywords : Physical Chemistry, Computational Chemistry, Chemoinformatics, Spectroscopy, Thermodynamics

The COVID-19 pandemic has led to an increasing amount of research on redesigning educational models. This paper describes the contents of a new laboratory course on physical chemistry based on blended learning, designed for third-year students in the Department of Applied Chemistry, Faculty of Science and Engineering, Chuo University. We provided students with digest video materials for flipped learning, a cloud computing environment, and video conferencing tools. These materials enhanced the course contents to facilitate effective education during the pandemic. The results of a questionnaire survey showed that students were delighted with the new course, which comprehensively included experiments, computation, and data science.

コロナ禍を契機に、化学教育モデルの再設計が活発化している。本講演では，ブレンデッドラーニングに基づく物理化学の新実験授業の取組を紹介する。本授業では，反転学習用のダイジェストビデオ，クラウド計算環境，ビデオ会議ツールを学生に提供した。また、パンデミック下の効果的な教育を促進するため、授業内容を充実させた。アンケート結果、実験から情報化学まで総合的に盛り込んだ授業に、学生が満足したことが分かった。

1) Comprehensive Physical Chemistry Learning Based on Blended Learning: A New Laboratory Course, Kuroki N., Mori H., *J. Chem. Edu.* **2021**, *12*, 3864-3870. (Open Access)