SUPER – Stuttgart University Program for Experiencing Research
Project Information

Institute's Information

Name of Institute: Institute of Thermodynamics and Thermal Process Engineering
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Duration of Project/Number of Students

<table>
<thead>
<tr>
<th>Duration</th>
<th>Number of Students</th>
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<tr>
<td>June/July</td>
<td>flexible</td>
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<tr>
<td>June/July/August</td>
<td>flexible</td>
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<td>Number of Students</td>
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Name of Project: Determination of thermodynamic properties by dynamic light scattering and/or phase equilibrium experiments.

Beneficial Skills & Knowledge: Interest in practical laboratory work, interest in thermodynamics, willing to work in a team

Description of Work

Knowledge of high-precision thermodynamic properties such as viscosities, diffusion coefficients and vapour pressures are the basis for many applications in the chemical industry. They are also necessary to validate predictive thermodynamic models. Within the scope of the work, thermodynamic properties will be determined by using dynamic light scattering and/or phase equilibrium experiments. The students learn the basics of laboratory work, familiarize themselves with the experimental apparatus and should then be able to carry out experiments independently. At the end their own experimental data are analyzed and compared with literature, modeling and simulation data.