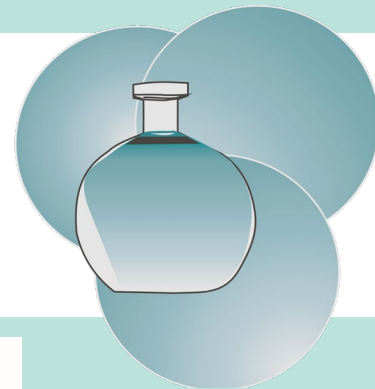


Fakultät für Naturwissenschaften

Institut für Chemie



lädt ein

gemeinsam mit der Gesellschaft
Deutscher Chemiker
zum



Vortrag

von Herrn

**Prof. Sebastian
Hasenstab-Riedel**

*Institut für Chemie und
Biochemie*

Anorganische Chemie

Freie Universität

Berlin

**“From Laboratory
Curiosities to Industrial
Applications: the World
of Halogens”**

am: 05. Juni 2025

um: 16:00 Uhr

wo: im Raum 1/232

Gäste sind herzlich willkommen!



TECHNISCHE UNIVERSITÄT
IN DER KULTURHAUPTSTADT EUROPAS
CHEMNITZ

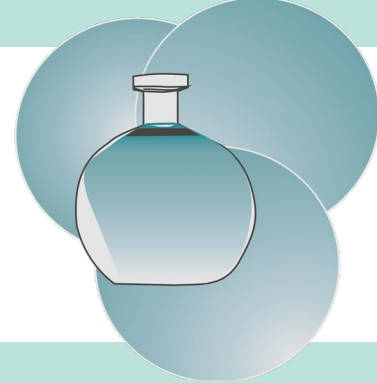
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Fakultät für Naturwissenschaften

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GESELLSCHAFT
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“From Laboratory Curiosities to Industrial Applications: the World of Halogens”

Novel super acids offer the possibility of synthesizing hitherto unknown compounds.[1] Based on such Lewis and Brønsted acids, we have succeeded in synthesizing and characterizing so far unknown halonium ions, which are ideal alkylation reagents due to their high reactivity.[2,3] Furthermore it was shown, that e.g. chloronium ions can be stabilized by polychloride monoanions such as $[\text{Cl}_3]^-$. [4]

Especially such polychloride anions offer new possibilities which are not only of academic interest.[5-8] The value of trichlorides for chlorine storage and chlorination reactions is only one aspect in this context. Particularly, the inexpensive ionic liquid $[\text{NEt}_3\text{Me}][\text{Cl}_3]$ shows a similar and sometimes even advantageous reactivity compared to chlorine gas, while offering a superior safety profile. Furthermore, this chemistry shows also new applications in the direction of hydrochlorinations and beyond.

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