

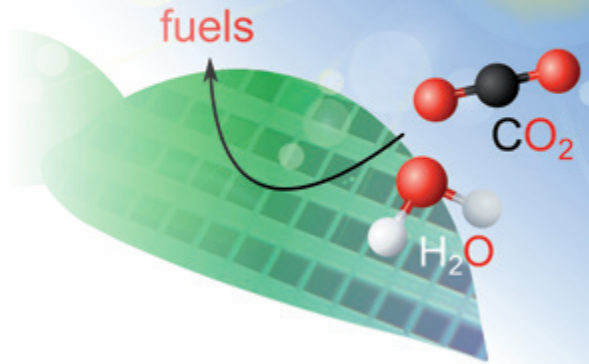
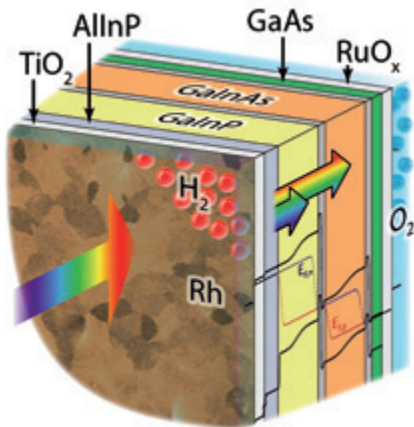
PROGRAMME

24 – 25 February 2021

1st ATC PhD Student Workshop & ATC Special

www.processnet.org/en/atc_online

ONLINE
EVENTS



The Scientific Committee is pleased to invite you to take part in the „ATC Special – Online Edition: Industrial Inorganic Chemistry - Materials and Processes” taking place on 25 February 2021. Six invited lectures will focus on one of the most pressing issues of these days, **a carbon free economy**.

Also, join the **1st ATC PhD Student Workshop** to discuss the topic „*How can inorganic chemistry help to minimize climate change?*” and give an answer to the question „What kind of processes, materials and products currently are developed in industry and within the academic world to reduce greenhouse gases?”. This **Online Workshop** will take place on 24 February 2021.

Experts from industry and academia will give an overview in tandem lectures on different aspects of how different initiatives are aiming at minimizing the climate change, followed by selected short presentations of the participants (PhD students). In the afternoon participants can present their posters and visit the company presentation and recruiting booths in the breakout rooms.

Both **online events** (registration see page 6) will provide excellent opportunities for established and young researchers from academia and industry to exchange knowledge, to get in contact and will foster out-of-the-box thinking to generate new ideas.

COMMITTEE

The programme has been arranged by the Subject Division “Applied Inorganic Chemistry” of ProcessNet:

Prof. Dr. Michael Fröba	Universität Hamburg/D
Prof. Dr. Nicola Hüsing	Universität Salzburg/A
Prof. Dr. Stefan Kaskel	TU Dresden/D
Prof. Dr. Peer Kirsch	Merck KGaA, Darmstadt/D
Prof. Dr. Ulrike Kramm	TU Darmstadt/D
Prof. Dr. Frank Menzel	Evonik Industries AG, Hanau/D
Wilfried Müller	Umicore AG & Co. KG, Hanau/D
Dr. Florian Paul	DECHEMA e.V., Frankfurt am Main/D
Prof. Dr. David Scheschkewitz	Universität des Saarlandes, Saarbrücken/D
Dr. Kerstin Schierle-Arndt	BASF SE, Ludwigshafen/D
Prof. Dr. Gerhard Sextl	Fraunhofer ISC, Würzburg/D
Dr. Hans-Jürgen Wachter	Heraeus AMLOY Technologies GmbH, Hanau/D

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Wednesday, 24 February 2021

09:00	Welcome and introduction of the online rules
09:05	TANDEM LECTURE I Fuels and chemicals from CO₂ and renewable power – two examples R. Dittmeyer ¹ ; T. Haas ² ; ¹ Karlsruhe Institute of Technology (KIT), Eggenstein-Leopoldshafen/D; ² Evonik Operations GmbH, Marl/D
09:35	Switchable supercapacitors with transistor-like gating characteristics (G-Cap) S. Lochmann ¹ ; Y. Bräuniger ¹ ; V. Gottsmann ¹ ; L. Galle ¹ ; J. Grothe ¹ ; S. Kaskel ¹ ; ¹ TU Dresden/D
09:55	Break
10:05	TANDEM LECTURE II PEM water-electrolysis en route for industrialisation – thanks to university based material research and industrial expertise H. Gasteiger ¹ ; C. Gebauer ² ; ¹ TU München, Garching/D; ² Heraeus Deutschland GmbH & Co. KG, Hanau/D
10:35	Solar energy conversion: photocatalytic hydrogen evolution using ruthenium(II) 2,4-di(pyridin-2-yl)-pyrimidine complexes as photosensitizers M. Rupp ¹ ; T. Auvray ² ; G. Hanan ² ; D. Kurth ¹ ; ¹ Julius Maximilians University of Würzburg/D; ² Université de Montréal/CDN
10:55	Break
11:05	TANDEM LECTURE III Synthesis of thermally stable ceria by thermal hydrolysis and use of the material for the exhaust treatment of fuel efficient Diesel engines with low exhaust temperatures M. Votsmeier ¹ ; E. Özkan ² ; ¹ Umicore AG & Co. KG, Hanau/D; ² Universität Gießen/D
11:35	Magnetic supraparticles for recycling: identification of different magnetic fingerprints by magnetic particle spectroscopy S. Müssig ¹ ; S. Wintzheimer ¹ ; K. Mandel ¹ ; ¹ Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Erlangen/D
11:55	Anti-counterfeiting luminescent ID-supraparticles: towards sustainable and transparent industrial production F. Miller ¹ ; K. Mandel ¹ ; S. Wintzheimer ¹ ; ¹ Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Erlangen/D
12:15	Lunch break
13:15	Welcome to company presentation and introduction of the online rules
13:20	COMPANY PRESENTATION AND RECRUITING IN BREAKOUT ROOMS
13:55	Welcome to poster session and introduction of the online rules

Wednesday, 24 February 2021

14:00	POSTER SESSION I IN BREAKOUT ROOMS
Room A	Po1 – Investigation of the chain length of metallo-supramolecular polyelectrolytes at different pH-levels R. Bissert ¹ ; A. Thünemann ² ; D. Kurth ¹ ; ¹ Julius-Maximilians-Universität Würzburg/D; ² Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin/D
Room B	Po2 – Lanthanide doping and dimensional reduction of the lead-free halide perovskite semiconductor Cs₂AgBiBr₆ F. Schmitz ¹ ; ¹ Justus Liebig Universität Gießen/D
Room C	Po3 – Piezoelectric inkjet printing of nanoporous carbons for quasi-solid-state micro-supercapacitors Y. Bräuniger ¹ ; S. Lochmann ¹ ; J. Grothe ¹ ; S. Kaskel ¹ ; ¹ TU Dresden/D
14:20	Time for change
14:25	POSTER SESSION II IN BREAKOUT ROOMS
Room A	Po4 – Defect engineered NaTaO₃ for co-catalyst-free overall photocatalytic water splitting E. Welter ¹ ; D. Poppitz ² ; M. Goepel ¹ ; R. Gläser ¹ ; ¹ Universität Leipzig/D
Room B	Po5 – Flame made catalysts for emission abatement F. Spranger ¹ ; J. Grothe ¹ ; S. Kaskel ¹ ; ¹ TU Dresden/D
Room C	Po6 – Mechanochemistry an old technique appearing in a new light – one contribution to more sustainable processes T. Straub ¹ ; G. Kickelbick ¹ ; ¹ Saarland University, Saarbrücken/D
14:45	Time for change
14:50	POSTER SESSION III IN BREAKOUT ROOMS
Room A	Po7 – Modified TiO₂ for photocatalytic oxidation of nitric oxides M. Stötzer ¹ ; S. Kintzel ¹ ; J. Grothe ¹ ; S. Kaskel ¹ ; ¹ TU Dresden/D
Room B	Po8 – Synthesis of cationic-anionic and amphiphilic Janus titania particles for the self-assembly in a layer-by-layer process L. Niedner ¹ ; G. Kickelbick ¹ ; ¹ Saarland University, Saarbrücken/D
Room C	Po9 – Ionic liquid based 3D printable ionogels for applications as electrolytes A. Lange ¹ ; K. Zehbe ¹ ; K. Elamin ² ; A. Taubert ¹ ; ¹ University of Potsdam/D; ² Chalmers University of Technology, Gothenburg/S
15:10	Closing remarks
15:25	End of the workshop

Thursday, 25 February 2021

This specially focused "ATC Special – Online Edition" will solely deal with the question of a decarbonized hydrogen production and use in industry. As a counterpoint the controversial topic of deep decarbonization will be discussed in a special lecture.

13:30	Welcome and introduction of the online rules
13:35	Decarbonized hydrogen production and use – an industrial perspective J. Ott ¹ ; ¹ Air Liquide Global Management Services GmbH, Frankfurt am Main/D
14:05	Hydrogen in the steel industry: a substitute for carbon M. Oles ¹ ; H. Weddige ¹ ; ¹ thyssenkrupp AG, Essen/D
14:35	Break
14:45	Fuel cells – advances and prospects in fundamentals and applications D. Stolten ¹ ; ¹ Forschungszentrum Jülich GmbH/D
15:15	Efficient solar fuels production with photoelectrochemical tandem cells T. Hannappel ¹ ; ¹ Technische Universität Ilmenau/D
15:45	Break
15:55	Transition metal sulfides and phosphides as electrocatalysts for water splitting: insights into activity and stability by in-situ and operando methods J. Hofmann ¹ ; ¹ Technische Universität Darmstadt/D
	SPECIAL LECTURE
16:25	Exploring the potential of carbon capture and utilization for deep decarbonization S. Fuss ¹ ; ¹ Mercator Research Institute on Global Commons & Climate Change, Berlin/D
16:55	Closing remarks and end of the online event

Due to the COVID-19 pandemic we had to postpone the „30th ATC – Industrial Inorganic Chemistry – Materials and Processes“ previously scheduled 25-26 February 2021 to 2022. We will be glad to celebrate the 30th anniversary of the ATC Conference with you in person in 2022 at the DECHEMA-House in Frankfurt. The new date will be announced in due time.

GENERAL INFORMATION

REGISTRATION FEES¹⁾

Participants from:		Member ²⁾	Non-Member
Academia	(Workshop + ATC Special)	165 €	180 €
Academia	(ATC Special only)	100 €	115 €
Industry	(Workshop + ATC Special)	245 €	260 €
Industry	(ATC Special only)	180 €	195 €
Ph.D. Student/Student ³⁾	(Workshop + ATC Special)	80 €	95 €
Ph.D. Student/Student ³⁾	(Workshop only)	50 €	65 €

¹⁾ No VAT requested according to § 4,22 UStG.

²⁾ Personal DECHEMA-Members, VDI-GVC-Members und EFC/EFCE-Passport-holders

³⁾ Proof of status

REGISTRATION

Online registration is possible up to the beginning of the conference via

www.processnet.org/en/atc_online

You will receive the links to download your registration confirmation, invoice and payment confirmation as PDF files.

The registration fees include conference ticket, book of abstracts and list of participants.

Editorial deadline for the list of participants is 29 January 2021.

CANCELLATION AND REFUNDS

Cancellations are only accepted in writing (i.e. by fax, postal mail or e-mail). Please find details about cancellation dates and fees in the general terms and conditions. In case of no-show the conference fees won't be refunded and fees not yet paid still have to be paid.

ORGANISER AND CONTACT

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