

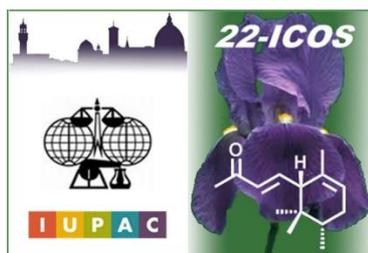
XXII International Conference on Organic Synthesis

16-21 September 2018, Florence, Italy



SCIENTIFIC PROGRAM & ABSTRACT BOOK

<http://www.22-icos-florence.it/>



XXII International Conference on Organic Synthesis (22-ICOS)

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SCIENTIFIC PROGRAM AND SOCIAL EVENTS OF 22-ICOS

September 16 (Sun) DAY 1 Afternoon

12:00-15:30 Registration

15:30 – AUDITORIUM – Opening Ceremony (60')

Session 1 – AUDITORIUM – Chair: GIANLUCA FARINOLA

16:30 – PL1 (60') **Cesare Gennari** – University of Milan, Italy
Tumor Targeting with Integrin Ligand - Drug Conjugates

Session 2 - AUDITORIUM

17:30 – EurJOC Anniversary presentation (15') **Anne Nijs**, Managing Editor Wiley-VCH

Session 2 - AUDITORIUM – Chair: ANNE NIJS

17:45 – PL2 (60') **Ben L. Feringa** - University of Groningen, The Netherland
Dynamic Molecular Systems

18:45 – Musical event (75') Concert INDACO Quartet

20:00 – Welcome party (120')

September 17 (Mon) Day 2 Morning

Session 1 – AUDITORIUM – Chair: FRANCESCO NICOTRA

8:45 – IL1 (45') **Darren J. Dixon** – University of Oxford, UK
Catalytic Approaches to Simplifying Synthesis

9:30 – IL2 (45') **Eun Jeong Yoo** – Kyung Hee University, Korea
Regiodivergent Dipolar Cycloadditions: Efficient Methods for the Synthesis of N-Heterocycles

10:15 – Coffee break (30')

Session 2 – AUDITORIUM – Chair: MAURIZIO PERUZZINI

10:45 – PL3 (60') **Erick M. Carreira** – ETH Zürich, Switzerland
Plenary Lecture

Session 3 (parallel) – AUDITORIUM – Chair: RENZO LUISI

11:55 – OC1 (15') **Pier Giorgio Cozzi** – University of Bologna, Italy
Merging Photoredox Catalysis with Nickel Catalysis: A Simple and Effective Catalytic Allylation of Aldehydes

12:10 – OC2 (15') **Adrien Quintard** – Aix Marseille Université, France

Multi-catalytic cascades toward the eco-compatible construction of natural products and halogenated analogues

12:25 – OC3 (15') **Christophe Aïssa** – University of Liverpool, UK
Cross-coupling of α -carbonyl sulfoxonium ylides with C–H bonds

12:40 – OC4 (15') **Takahiko Akiyama** – Gakushuin University, Japan
Enantioselective Friedel-Crafts Alkylation Reaction of Indole with Nitroalkenes by Means of Chiral Phosphoric Acid Metal Salt: Construction of Quaternary Carbon Center

Session 3 (parallel) – SALA VERDE – Chair: CLAUDIO SANTI

11:55 – OC5 (15') **Eric Pasquinet** – CEA-DAM Le Ripault, France
New cyclization methodologies towards nitrogen heterocycles: synthesis of (aza)indazoles and triazapentalenes

12:10 – OC6 (15') **Giulio Goti** – ICIQ, Avda, Tarragona, Spain
Photochemical Organocatalysis for the Enantioselective β -Acylation of Enals

12:25 – OC7 (15') **Damien Bonne** – Aix Marseille University, France
Conversion of Chirality as a New Strategy for the Control of Axial Chirality

12:40 – OC8 (15') **Evelina Colacino** – Université de Montpellier, France
From one jar/one compound syntheses to high throughput 'parallel mechanochemistry': towards a no solvent, no waste' organic synthesis

Session 3 (parallel) – SALA ONICE – Chair: SERENA M. FANTASIA

11:55 – OC9 (15') **Joanne Tan** – University of Toronto, Canada
Aminoboronic acid derivatives as serine hydrolase inhibitors

12:10 – OC10 (15') **Yuri Bolshan** – University of Ontario, Canada
Brønsted Acid-Catalyzed Reactions of Organoboranes

12:25 – OC11 (15') **Yoshitake Nishiyama** – Tokyo Medical and Dental University, Japan
Synthesis of Unsymmetrical Tertiary Phosphine Oxides via Sequential Substitution Reaction of Phosphonic Acid Dithioesters with Grignard Reagents

12:40 – OC12 (15') **Hyun J. Jeon** – Ewha Womans University, Republic of Korea
Cooperative Pd(0)/Rh(II) Dual Catalysis for Divergent Dipolar [3+3] and [4+3] Cycloadditions

13:00 Lunch (60')

September 17 (Mon) Day 2 Afternoon

Session 1 – AUDITORIUM – Chair: MARY GARSON

14:00 – IL3 (45') **Mercedes Amat** – University of Barcelona, Spain
Enantioselective Total Synthesis of Structurally Diverse Natural Products from Common Scaffolds

14:45 – IL4 (45') **Jieping Zhu** – Ecole Polytechnique Fédérale de Lausanne, Switzerland
Conformation-Controlled Stereoselectivity in Natural Product Total Synthesis

Session 2 – AUDITORIUM – Chair: NIKOLAY E. NIFANTIEV

15:30 – PL4 (60') **Véronique Gouverneur** – University of Oxford, UK
Late Stage Fluorination with Alkali Metal Fluoride

16:30 – Coffee Break (30')

Session 3 (parallel) – AUDITORIUM – Chair: CARLOS R. CORREIA

17:00 – KL1 (30') **Kevin R. Campos** - Merck Sharp & Dohme Corp., USA
Invention of catalytic asymmetric methods for the commercial manufacture of complex drug targets

17:30 – OC13 (15') **Giorgio Bencivenni** – University of Bologna, Italy
Enantioselective Synthesis of Alkylidene Cyclohexanes Displaying Axial Chirality via Knoevenagel Condensation

17:45 – OC14 (15') **Ramasamy Manoharan** – Indian Inst. of Science Education and Research, Pune, India
Chelation assisted Cobalt Catalyzed ortho C H Olefination of Aromatics

18:00 – OC15 (15') **Patricia García-García** – Universidad de Alcalá, Madrid, Spain
Synthesis and functionalization of novel BN-arenes

18:15 – OC16 (15') **Moshe Portnoy** – Tel Aviv University, Israel
Domino two-step oxidation of β -alkoxy alcohols to hemiacetal esters

18:30 – OC17 (15') **Xavier Companyó** – Imperial College London, UK
Distribution of Catalytic Species as an Indicator to Overcome Reproducibility Problems

18:45 – OC18 (15') **Maria-João .R. P. Queiroz** – Universidade do Minho, Braga, Portugal
Synthesis of novel 8-(het)aryl-6H-pyrano[4',3':4,5]thieno[3,2-b]pyridines

Session 3 (parallel) – SALA VERDE – Chair: ALESSANDRO MORDINI

17:00 – KL2 (30') **Martin Pouliot** - Syngenta Crop Protection, Switzerland
Synthesis and fungicidal activity of a new family of oxysterol binding protein inhibitors

17:30 – OC19 (15') **Stefan Schiesser** – Massachusetts Institute of Technology, USA
Concise total synthesis of (+)-asperazine A and (+)-pestalazine B

17:45 – OC20 (15') **Takahiro Suzuki** – Hokkaido University, Japan
Total Synthesis of Atropurpuran

18:00 – OC21 (15') **Piotr Kwiatkowski** – University of Warsaw, Poland
High-Pressure Activation of Organocatalytic Reactions: Application in Asymmetric Construction of Quaternary Stereogenic Centers

18:15 – OC22 (15') **Claudia Lalli** – Univ Rennes, CNRS, France
Introducing Chiral Phosphotriesters in Asymmetric Metal Catalysis: Enantioenriched Alcohols by Zn-Catalyzed Hydrosilylation of Ketones

18:30 – OC23 (15') **Sophie A. L. Rousseaux** – University of Toronto, Canada

Electrophilic Metal Homo-enolates and their Application in the Synthesis of Cyclopropylamines

18:45 – OC24 (15') **Sergio Rossi** – Università degli Studi di Milano, Italy
Organocatalytic α -trifluoromethylthiolation

Session 3 (parallel) – SALA ONICE – Chair: FIONA SHORTT DE HERNANDEZ

17:00 – KL3 (30') **Alessandro Agosti** – OLON SpA, Rodano (MI)
A safer, environmentally benign formation of chlorosulfonamide reagent

17:30 – OC25 (15') **Woo Gyum Kim** – Ulsan Nat. Inst. of Science and Technology, Republic of Korea
Nickel-Catalyzed Synthesis of 1,5-Disubstituted 1,2,3-Triazoles

17:45 – OC26 (15') **Helen L. Barlow** – University of Manchester, UK
Ruthenium catalysed meta-carboxylation

18:00 – OC27 (15') **Elsa Martínez Arce** – University of Birmingham, UK
General strategy to access imidazo-fused heterocycles using aminides as nitrenoids

18:15 – OC28 (15') **Se Hun Kim** – The University of Auckland, New Zealand
Synthetic Studies Towards Pseudocerosine

18:30 – OC29 (15') **Michael Breunig** – University of Konstanz, Germany
Formal Total Synthesis of (\pm)-Strictamine – the [2,3]-Stevens Rearrangement for Construction of Octahydro-2H-2,8-methanoquinolizines

18:45 – OC30 (15') **Ajoy K. Banerjee** – Venezuelan Inst. of Scientific Res., Caracas, Venezuela
Isopropylation of Substituted-1-Tetralone. Origin of Potential Intermediates for Sesquiterpenes and Diterpenes

September 18 (Tue) Day 3 Morning

Session 1 – AUDITORIUM – Chair: SHU KOBAYASHI

8:45 – IL5 (45') **Nuno Maulide** – University of Vienna, Austria
The beautiful simplicity of rearrangements: methodology and total synthesis

9:30 – IL6 (45') **Janine Cossy** – ESPCI Paris, France
Construction of Heterocycles From Cyclopropenes

10:15 – Coffee break (30')

Session 2 – AUDITORIUM – Chair: ENRICO MARCANTONI

10:45 – PL5 (60') **David W. C. MacMillan** – Merck Center for Catalysis, Princeton, USA
New Photoredox Reactions

Session 3 (parallel) – AUDITORIUM – Chair: MARIA J. QUEIROZ

11:55 – OC31 (15') **Claudio Santi** – University of Perugia, Italy
Zinc chalcogenates as a novel class of nucleophilic reagents for the ecofriendly chemo and stereoselective functionalization of organic substrates

12:10 – OC32 (15') **Hiriyakkanavar Ila** – Jawaharlal Nehru Center for Adv. Scient. Res., Bangalore, India
New Synthetic routes for Benzo[b]thiophenes and Their Hetero-fused Analogs via Organosulfur Synthons

12:25 – OC33 (15') **Jose C. Gonzalez-Gomez** – Universidad de Alicante, Spain
Visible-Light Induced Transformation of Carboxylic Acids with Organophotocatalysts

12:40 – OC4 (15') **Berit Olofsson** – Stockholm University, Sweden
Regiospecific N-Arylation of Nitrogen Nucleophiles under Mild and Metal-Free Conditions

Session 3 (parallel) – SALA VERDE – Chair: MAURO PINESCHI

11:55 – OC35 (15') **Nikolay E. Nifantiev** – Russian Academy of Sciences, Moscow, Russia
Driving force of the pyranoside-into-furanoside rearrangement

12:10 – OC36 (15') **Urs Gellrich** – Justus-Liebig-Universität Giessen, Germany
Reversible Hydrogen Activation by a Pyridonate Borane Complex: Combining Frustrated Lewis Pair Reactivity with Boron-Ligand Cooperation

12:25 – OC37 (15') **Kentaro Okano** – Kobe University, Japan
Recent Development of Halogen Dance

12:40 – OC38 (15') **Gavin Chit Tsui** – The Chinese University of Hong Kong
Turning Waste Into Value: New Trifluoromethylation Reactions with Fluoroform-Derived CuCF_3

Session 3 (parallel) – SALA ONICE – Chair: ŁUKASZ ALBRECHT

11:55 – OC39 (15') **Styliana I. Mirallai** – National University of Ireland Galway, Ireland
An Alternative to the Mannich Reaction for the Synthesis of Valuable Acrylamide Monomers Containing Methylene Amino-Substituents

12:10 – OC40 (15') **Katharina Zielke** – Johannes Kepler University, Austria
Cyclization reactions using quinone-methides and ylides

12:25 – OC41 (15') **Alexander R. Norman** – University of Sydney, Australia
Acyl Radicals and Beyond – A Photoredox Approach

12:40 – OC42 (15') **Assunta D'Amato** – University of Salerno, Italy
Peptoid-based topological templates: central to conformational chirality induction

13:00 Lunch (60')

September 18 (Tue) Day 3 Afternoon

Session 1 – AUDITORIUM – Chair: CINZIA COLOMBO

14:00 Flash Communications (30') – FLP1-6

14:30 Poster Session A (90') P1-170

16:00 Coffee break

Session 2 – AUDITORIUM – Chair: MARC POULIOT

16:30 – PL6 (60') **Varinder Aggarwal** – School of Chemistry, University of Bristol, UK
Assembly Line Synthesis

Session 3 – AUDITORIUM – Chair: EMANUELA LICANDRO

17:30 – IL7 (45') **Géraldine Masson** – ICSN-CNRS, Gif-sur-Yvette, France
Perfluoroalkylation Reactions by Visible-Light Photoredox Catalysis

18:15 – IL8 (45') **Alexander O. Terent'ev** – N. D. Zelinsky Institute of Organic Chemistry, Russia
Organic peroxides: synthesis and application

21:00 Concert of the University of Florence Orchestra - SS Annunziata Church

September 19 (Wed) Day 4 Morning

Session 1 – AUDITORIUM – Chair: GIOVANNI POLI

8:45 – IL9 (45') **Floris P. J. T. Rutjes** – Radboud University, Nijmegen, The Netherlands
New Approaches for the Synthesis of Biologically Relevant Heterocycles

9:30 – IL10 (45') **Kilian Muñiz** – ICIQ, Tarragona, Spain
Catalytic C-H Amination within Halide Redox Manifolds

10:15 – Coffee break (30')

Session 2 – AUDITORIUM – Chair: BERIT OLOFSSON

10:45 – PL7 (60') **M. Christina White** – University of Illinois, USA
Molecular surgery

Session 3 (parallel) – AUDITORIUM – Chair: CRISTINA PRANDI

11:55 – OC43 (15') **Wenjun Tang** – Shanghai, Institute of Organic Chemistry, China
Efficient Syntheses of Chiral Natural Products Facilitated by Asymmetric Cross-Couplings

12:10 – OC44 (15') **Shuji Akai** – Osaka University, Japan
A Novel Approach to Optically Active 2,2'-Dihydroxy-1,1'-Biaryls by Lipase/Metal Combo-Catalyzed Dynamic Kinetic Resolution

12:25 – OC45 (15') **Łukasz Albrecht** – Lodz University of Technology, Poland
Asymmetric organocatalysis in the synthesis of biologically relevant molecules

12:40 – OC46 (15') **Giovanni Poli** – Institut Parisien de Chimie Moléculaire, Paris, France
Pd-Catalyzed Direct C-H Alkenylation and Allylation of Azine N-Oxides

Session 3 (parallel) – SALA VERDE – Chair: KENTARO OKANO

11:55 – OC47 (15') **Eufrânio N. da Silva Jr** – Institute of Exact Sciences, Rio de Janeiro, Brazil
Direct sequential C-H iodination/organoyl-thiolation for quinoidal deactivated systems: A new protocol for potent trypanocidal quinones

12:10 – OC48 (15') **Jens Christoffers** – Carl von Ossietzky-Universität, Oldenburg, Germany
Oxidative Umpolung: Formation of δ -Lactones with anti-Baeyer-Villiger Regiochemistry from β -Oxoesters, Enol Esters and Dioxxygen

12:25 – OC49 (15') **Alexey L. Nuzhdin** – Boreskov Institute of Catalysis, Novosibirsk, Russia
Flow synthesis of secondary amines over M/Al₂O₃ catalysts (M = Cu, Ag) by one-pot reductive amination of aldehydes with nitroarenes

12:40 – OC50 (15') **Eric P. A. Talbot** – Pharmaron, UK
From Late Stage Oxidation to Heterocyclic Synthesis: New Methodology for Drug Discovery

Session 3 (parallel) – SALA ONICE – Chair: GIOVANNI PIERSANTI

11:55 – OC51 (15') **Claudia Tomasini** – Università di Bologna, Italy
Pseudopeptide Gelators able to form Biocompatible and Self-Healing Hydrogels

12:10 – OC52 (15') **Tao Xu** – Victoria University of Wellington, New Zealand
Towards the Synthesis of Pateamine A Analogues

12:25 – OC53 (15') **Patricia García Domínguez** – Universidade de Vigo, Spain
Difluoromethylation of aryl halides by Si-to-Au-to-Pd shuttling of fluorinated organic fragments

12:40 – OC54 (15') **Anne-Katrin Bachon** – RWTH Aachen University, Germany
Building Blocks for the Synthesis of N-Arylated Sulfoximines

13:00 Lunch (60')

September 19 (Wed) Day 4 Afternoon

Session 1 – AUDITORIUM – Chair: LISA MONI

14:00 Flash Communications (30') **FLP7-12**

14:30 Poster Session B (90') **P171-340**

16:00 Coffee break (20')

Session 2 – AUDITORIUM

16:20 – Ceremony Thieme-IUPAC Prize (10') - **F. Shortt de Hernandez** and **F. Nicotra**

Session 2 – AUDITORIUM – Chair: VICTOR SNIECKUS

16:30 – PL8 (60') **Seth B. Herzon** – Yale University, USA
Total synthesis of pleuromutilins

Session 3 – AUDITORIUM – Chair: CLAUDIO TROMBINI

17:30 – IL11 (45') **Joëlle Prunet** – University of Glasgow, UK
Olefin Metathesis: from Natural Product Synthesis to Polymer Functionalisation

18:15 – IL12 (45') **Dilip D. Dhavale** – Savitribai Phule Pune University, Pune, India
Fluorinated/Non-fluorinated Sugar Amino Acid Peptidomimetics: Synthesis, Conformational Studies and Ion Transport Activity

September 20 (Thu) Day 5 Morning

Session 1 – AUDITORIUM – Chair: DAVID BLACK

8:45 – IL13 (45') **Olivier Baudoin** – University of Basel, Switzerland
Ring construction by palladium(0)-catalyzed C-H activation

9:30 – IL14 (45') **Franca Zanardi** – Università di Parma, Italy
How to Menage and Keep Control of (Hyper)Vinylogous Carbonyl Donor Systems

10:15 – Coffee break (30')

Session 2 – AUDITORIUM – Chair: PIER GIORGIO COZZI

10:45 – PL9 (60') **Yujiro Hayashi** – Tohoku University, Japan
Pot Economy in the Synthesis of Biologically Active Molecules

Session 3 (parallel) – AUDITORIUM – Chair: STEFANO MENICHETTI

11:55 – OC55 (15') **Giovanni Piersanti** – University of Urbino “Carlo Bo”, Italy
Bioinspired Enantioselective Synthesis of (-)-trans-Clavicipitic Acid by means of C-H Oxidation

12:10 – OC56 (15') **Mingji Dai** – Purdue University, USA
Total Synthesis via Tandem Catalysis

12:25 – OC57 (15') **Grégory Danoun** – Ecole Polytechnique, CNRS, Palaiseau cedex, France
First-Row Metal Catalyzed Cross-Coupling of Acid Derivatives

12:40 – OC58 (15') **Mads H. Clausen** – Technical University of Denmark, Kemitorvet, Denmark
Prodrugs for the treatment of inflammatory disease

Session 3 (parallel) – SALA VERDE – Chair: OLIVER SIMIC

11:55 – OC59 (15') **Jens Frackenhohl** – Bayer AG, Crop Science Division, Germany
New headgroup variations of Abscisic Acid giving plants a quantum of solace - New lead structures showing promising efficacy against drought stress in vitro and in vivo

12:10 – OC60 (15') **Jeffrey Y. W. Mak** – The University of Queensland, Brisbane, Australia
Unstable metabolite from bacterial vitamin B2 biosynthesis potently activates T cells

12:25 – OC61 (15') **Barbara Bernardim** – University of Cambridge, UK
Synthesis of chemically defined antibody-drug conjugates using carbonylacrylic reagents

12:40 – OC62 (15') **Annamaria Deagostino** – Università degli Studi di Torino, Italy
N-Tosylhydrazone Addition to Pd(II)- π -allyl complexes: a New Route for the Synthesis of Conjugated and Skipped Dienes

Session 3 (parallel) – SALA ONICE – Chair: CLAUDIA TOMASINI

11:55 – OC63 (15') **Cody Ross Pitts** – ETH Zürich, Switzerland

A General Approach to Oxidative Polyfluorination of Heteroatoms: Chalcogens and Beyond

12:10 – OC64 (15') **Marvin Mantel** – Heinrich-Heine Universität Düsseldorf, Jülich, Germany

Tuning the Reactivity – New Bench-Stable Allylation Reagents for the Highly Enantioselective and Efficient synthesis of all Stereoisomers of Tertiary Homoallylic Alcohols

12:25 – OC65 (15') **David F. Fernández** – Universidade de Santiago de Compostela, Spain

Iridium(I)-Catalyzed Intramolecular hydrocarbonation reactions: efficient access to chiral cyclic products

12:40 – OC66 (15') **Osama El-Sepelgy** – RWTH Aachen University, Germany

Replacing Homogenous Noble Metal Catalysts with Base-Metal Alternatives: from Concepts to Applications

13:00 Lunch (60')

September 20 (Thu) Day 5 Afternoon

Session 1 – AUDITORIUM – Chair: SOPHIE ROUSSEAU

14:00 Flash Communications (30') FLP13-19

14:35 Poster Session C (85') P341-503

16:00 Coffee break (30')

Session 2 – AUDITORIUM – Chair: ERNESTO G. OCCHIATO

16:30 – PL10 (60') **Stefan Bräse** – Karlsruhe Institute of Technology, Germany

Planar Chiral [2.2]Paracyclophanes: From Synthetic Curiosity to Applications in Asymmetric Synthesis and Materials

Session 3 – AUDITORIUM – Chair: ANDREA GOTI

17:30 – IL15 (45') **Masavuki Inoue** – The University of Tokyo, Japan

Radical-based Approach for Synthesis of Complex Natural Products

18:15 – IL16 (45') **Sandrine Py** – Univ. Grenoble Alpes, France

Nitrones as synthetic tools for the discovery of novel classes of iminosugars

20:30 Gala Dinner – Palazzo Borghese e della Stampa

September 21 (Fri) Day 6 Morning

Session 1 – AUDITORIUM – Chair: MADS H. CLAUSEN

9:00 – IL17 (45') **André B. Charette** – University of Montreal, Canada

Journey into cyclopropane chemistry and continuous flow synthesis

9:45 – PL11(60') **Dawei Ma** – Shanghai Institute of Organic Chemistry, China

New Strategies for Synthesizing Alkaloids

10:45 – Coffee break (20')

Session 2 – AUDITORIUM – Chair: ELENA LENCI

11:05 – PL12 (60') **Alois Fürstner** – Max-Planck-Institut für Kohlenforschung, Germany
Catalysis for Total Synthesis

12:05 – **REAXYS prize** (10')

12:15 – **Poster prize Awards** (15')

12:30 – Closing ceremony and presentation of 23-ICOS (60')



POSTER SESSION B
FLP7-FLP12
P171-P340

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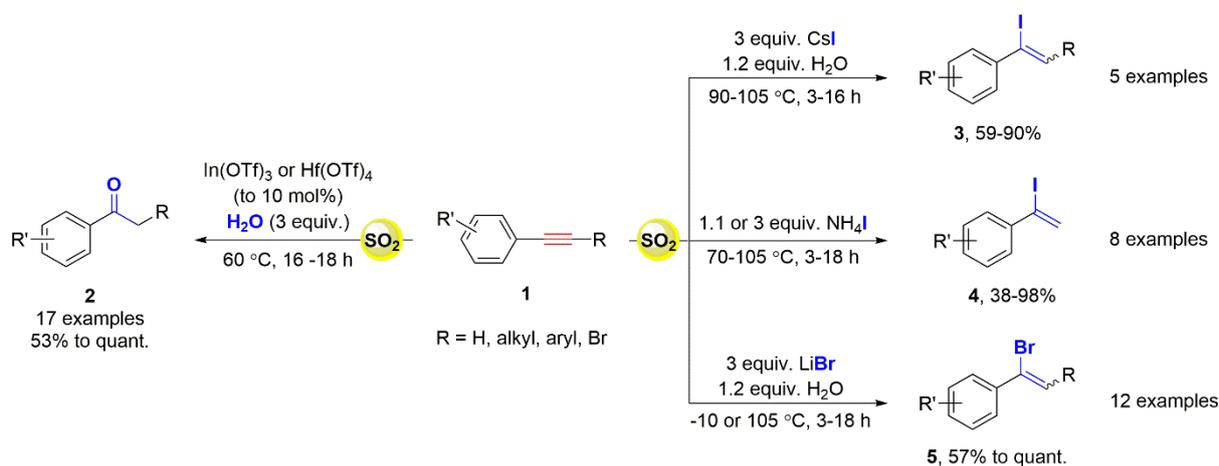
Synthesis of Ketones and α -Vinyl Halides from Alkynes in Liquid SO_2 *Krista Suta, Māris Turks**

Faculty of Materials Science and Applied Chemistry, Riga Technical University, P. Valdena str. 3, Riga, LV-1048, Latvia; e-mail: krista.suta_1@rtu.lv

Sulfur dioxide (SO_2) is not only a useful building block in a synthetic organic chemistry, but in its liquid state can be used as a strong polar solvent as well [1-3]. Besides, liquid SO_2 is one of the few polar solvents that possess Lewis acid properties. On the other hand, synthesis of both ketones and α -vinyl halides from alkynes can be facilitated by additive of Lewis acid and both transformations may proceed through vinyl cation intermediate. Herein we report novel conditions for catalytic alkyne hydration and a new approach for the alkyne hydrohalogenation promoted by liquid SO_2 as a reaction medium.

Hydration of alkynes is one of the most direct approach for introduction of carbonyl functionality in organic molecules. Nowadays, the use of transition metal catalytic systems together with acidic solvents or additives is preferred over Kucherov hydration conditions. Combination of In(III) or Hf(IV) triflate as a catalyst and liquid SO_2 as a solvent allowed us to obtain desired aryl ketones **2** in good to excellent yields without direct addition of acid. For electron rich alkynes catalyst loadings can be reduced to 0.5 mol% without loss in yields.

Hydrohalogenation of alkynes is one of the most straightforward strategies for synthesis of α -vinyl halides. Screening of different alkali, alkaline earth metals and ammonium halides (I, Br, Cl, F) for reactivity towards phenyl acetylene in liquid SO_2 revealed potential of CsI, LiBr and NH_4I as halide sources reaching up to almost quantitative conversion of starting material to the desired α -vinyl halides detected by GC. After optimization of the reaction conditions a series of α -aryl vinyl iodides **3** and **4** and bromides **5** were synthesized in moderate to excellent yields. Furthermore, NH_4I acts both as iodide and as proton source under our reaction conditions without a need of water additive. While LiBr was not reactive towards aliphatic alkynes and phenyl acetylenes substituted with strong electron withdrawing groups, use of CsI and NH_4I led to the mixture of unreacted starting material and corresponding 1,2-diiodides without desired α -vinyl iodides detected.



References: 1. Posevins, D.; Suta, K.; Turks, M. *Eur. J. Org. Chem.* **2016**, 1414. 2. Lugiņina, J.; Uzuleņa, J.; Posevins, D.; Turks, M. *Eur. J. Org. Chem.* **2016**, 1760. 3. Lugiņina, J.; Turks, M. *Synlett* **2017**, 28, 939.