

**Curriculum Vitae  
in formato  
Europeo**

***European  
Curriculum Vitae  
Format***

**Informazioni personali  
*Personal information***

Nome e Cognome  
*Name and surname*

**Ing. Jan Holub, PhD**

Attuale  
Amministrazione di  
appartenenza  
*Current Administration*

*University of Chemistry and Technology (UCT, Prague)  
Technická 5  
166 28 Praha 6 – Dejvice  
Czech Republic*

Attuale responsabilità  
*Current occupation or  
position held*

**JUNIOR GROUP LEADER**

Contatti  
*Contacts*

*e-mail: holubj@vscht.cz*

**Esperienza lavorativa  
*Work experience***

**02/02/2022 – CURRENT**

**JUNIOR GROUP LEADER – GROUP OF COORDINATION CHEMISTRY**  
*Department of inorganic chemistry, university of chemistry and technology,  
prague, Czech Republic*

- *Supramolecular chemistry of molecular grids and metal-driven self-assembly*
- *Electrocatalytic activation of small molecules*
- *Water and Ammonia oxidation for green hydrogen production using transition metal molecular (electro)catalysts*

**02/08/2021 – 31/01/2022**

**LABORATORY AND PROJECT MANAGER**  
*Prof. G. BERNARDES - Yusuf Hamied Department of chemistry, University of  
Cambridge*

- *Students' induction into the laboratory*
- *Management of accompanying funding administration – reports, filling of statements, negotiation and purchase of equipment*

01/07/2017 – 26/02/2021

**Istruzione e formazione**  
**Education and training**

26/9/2012-28/9/2016

(29/9/2016-30/6/2017 –  
Postdoc)

2007 – 2012

**Madrelingua**  
**Mother tongue**

**Altre competenze**  
**Linguistiche**  
**Other languages**

**Allegati**  
**Attachments**

**POSTDOCTORAL RESEARCHER**

Prof. A. LLOBET - Institute of Chemical research of Catalonia (ICIQ),  
Tarragona, Spain

- Electrochemical transformations– H<sub>2</sub>O, NH<sub>3</sub>, CO<sub>2</sub>, N<sub>2</sub> oxidations and reductions.

**PH.D. STUDY AND RESEARCH**

Prof. J.-M. LEHN - Institut de Ciencia et d'Ingénierie Supramoléculaires,  
University of Strasbourg, Strasbourg, France

**PhD thesis:** Generation of Coordination Architectures from Dynamic  
Covalent Ligand Libraries

- Stimuli-responsive dynamic combinatorial networks – Developed proof of concept dual metallo-trainable dynamic network based on dynamic covalent chemistry (DCC) of imines
- Self-assembling metalosupramolecular grids and helicates – First to prepare and characterize folded hairpin-like and aldehyde functionalized grids and their decoration through DCC

**MASTER'S AND BACHELOR'S STUDIES**

University of Chemistry and Technology in Prague (UCT, Prague), Prague,  
Czech Republic

- **Master's degree research topic (Prof. P. Lhoták):**  
Upper rim substitution of calix[4]arenes: Use of directed C-H activation for meta substitution of the upper rim of the calixarenes
- **Bachelor's degree research topic (Prof. P. Lhoták):**  
Design and synthesis of dendrimers based on thiacalix[4]arene derivatives

**Czech**

**English:** Proficient user. Fluent in spoken and written English (C1 IELTS certificate)

**Russian:** Proficient user. Good spoken and written Russian

**Spanish:** Independent user. Basic conversation and written text.

**French:** Passive user. Understanding of the spoken language and written text

**LIST OF FUNDINGS**

2012-2016 PhD funding grant from the University of Strasbourg (France)

2018-2021 PROBIST – Joint Postdoctoral fellowship between BIST and Marie Skłodowska-Curie grant

2022-2024 Starting grant - Dagmar Procházková Fund – Starting grant for young scientists establishing their independent group at the UCT, Prague

#### SELECTED PUBLICATIONS

- 1) Holub, J.; Vantomme, G.; Lehn, J.-M. Training a Constitutional Dynamic Network for Effector Recognition: Storage, Recall, and Erasing of Information. *J. Am. Chem. Soc.*, 2016, 138 (36). DOI:10.1021/jacs.6b05785
- 2) Holub, J.; Santoro, A.; Stadler, A.-M.; Lehn, J.-M. Peripherally Multi-Functionalised Metallosupramolecular Grids: Assembly, Decoration, Building Blocks for Dynamic Covalent Architectures, *Inorg. Chem. Front.* 2021, 8 (23), 5054-5064, DOI: <https://doi.org/10.1039/D1QI01084K>
- 3) Holub, J.; Vereshchuk, N.; Sánchez-Baygual, F.-J.; Gil-Sepulcre, M.; Benet-Buchholz, J.; and Llobet A. Synthesis, Structure, and Ammonia Oxidation Catalytic Activity of Ru-NH<sub>3</sub> Complexes Containing Multidentate Polypyridyl Ligands, *Inorg. Chem.* 2021, 60 (18), 13929–13940, DOI: 10.1021/acs.inorgchem.1c01528
- 4) Beiler, A.; Denisiuk, A.; Holub, J.; Sanchez-Baygual, F.-J.; Gil-Sepulcre, M.; Ertem, M.; Moonshiram, D.; Piccioni, A.; Llobet, A. Heterogeneous Electrochemical Ammonia Oxidation with a Ru-bda Oligomer Anchored on Graphitic Electrodes via CH- $\pi$  Interactions *ACS Energy Lett.* 2023, 8, 172–178; DOI: 10.1021/acsenergylett.2c02483
- 5) Santoro, A.; Holub, J.; Fik-Jaskółka M. A., Vantomme G.; Lehn J.-M. Dynamic Helicates Self-Assembly from Homo- and Heterotopic Dynamic Covalent Ligand Strands *Chem. Eur. J.* 2020, 26, 15664–15671. DOI: 10.1002/chem.202003496

**Modello  
informativa  
sintetica,  
informazioni sul  
trattamento**

Ai sensi dell'art. 13 del Regolamento (UE) 2016/679, si informa la S.V. che questa Università è titolare del trattamento dei dati personali dalla S.V. conferiti e che il trattamento stesso sarà effettuato nel rispetto del citato regolamento europeo ai fini dell'assolvimento degli obblighi di pubblicazione di cui al d.lgs. 33/2013. I dati potranno essere utilizzati e conservati esclusivamente per gli adempimenti di legge correlati all'affidamento dell'incarico. Il conferimento dei dati è obbligatorio a tali fini. I dati saranno trattati dall'Università, in qualità di titolare, nel rispetto delle disposizioni del Regolamento (UE) 2016/679 con le modalità previste nell'informativa completa pubblicata sul sito dell'Università. La S.V. è informata che potrà comunque ed in qualsiasi momento, ai sensi degli artt. 15 ss. del Regolamento (UE) 2016/679, verificare i propri dati personali raccolti dal Titolare e farli correggere, aggiornare o cancellare rivolgendosi al Responsabile della protezione dei dati (inserire dati di contatto del DPO). La S.V. è informata che in caso di inosservanza del Regolamento (UE) 2016/679 potrà rivolgere reclamo al Garante per la protezione dei dati personali";

**Summary  
information  
model,  
information on  
treatment**

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I dati personali ivi pubblicati sono "riutilizzabili solo alle condizioni previste dalla normativa vigente sul riutilizzo dei dati pubblici (direttiva comunitaria 2003/98/CE e d. lgs. 36/2006 di recepimento della stessa), in termini compatibili con gli scopi per i quali sono stati raccolti e registrati, e nel rispetto della normativa in materia di protezione dei dati personali

**Model alert on  
purpose limitation  
in re-use**

*Personal data published therein are "reusable only under the conditions provided by current legislation on the reuse of Public Data (EU Directive 2003/98/CE and Legislative Decree 36/2006 implementing it), in a manner that is compatible with the purposes for which they were collected and recorded, and in compliance with the legislation on personal data protection".*

MODELLO ALERT  
MODEL ALERT