

Structural Dynamics Research Group



K. N. Jarzemska & R. Kamiński

Research topics

Photocrystallography - ultra-fast time-resolved and steady-state experiments

Transition-metal complexes and photoactive functional materials

High-pressure X-ray diffraction

Crystallographic software development

Instrumentation design and construction



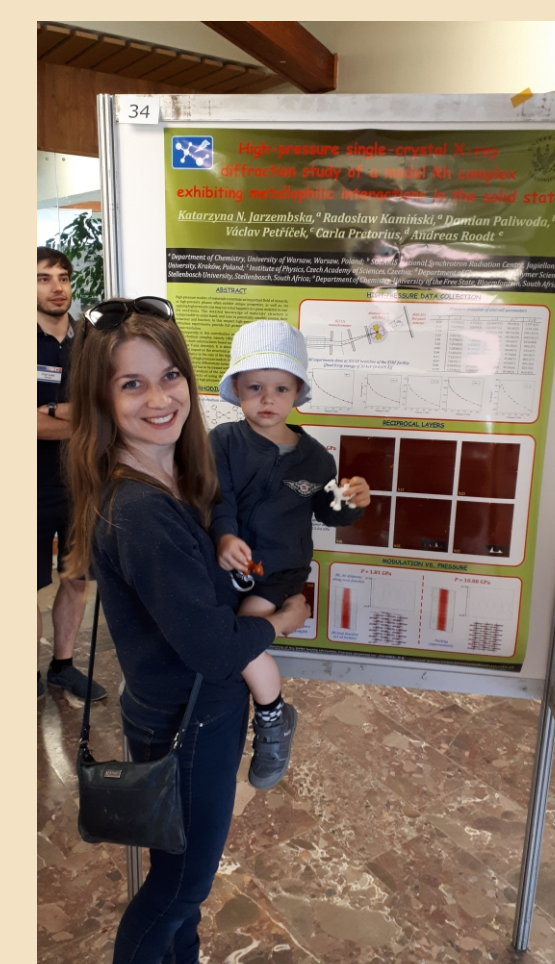
From left to right: Liliana Siewierska (stud.), Kinga Potempa (stud.), Krystyna Deresz (PhD stud.), Piotr Łaski (PhD stud.), Sylwia Kutniewska (PhD), Patryk Borowski (stud.), Radosław Kamiński (co-PI), Katarzyna Jarzemska (PI, the boss), Jakub Drapała (PhD stud.)

Conference workout by **Ann Kate!**

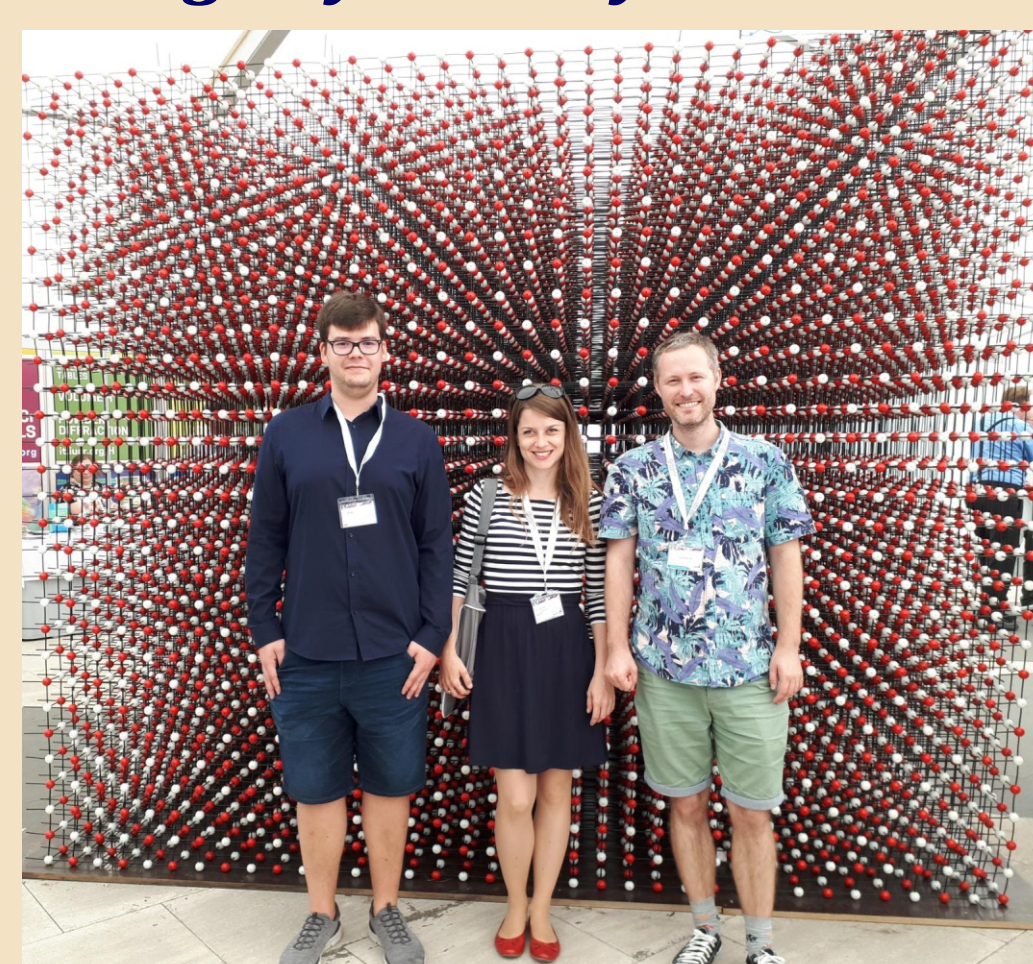
High symmetry, indeed!



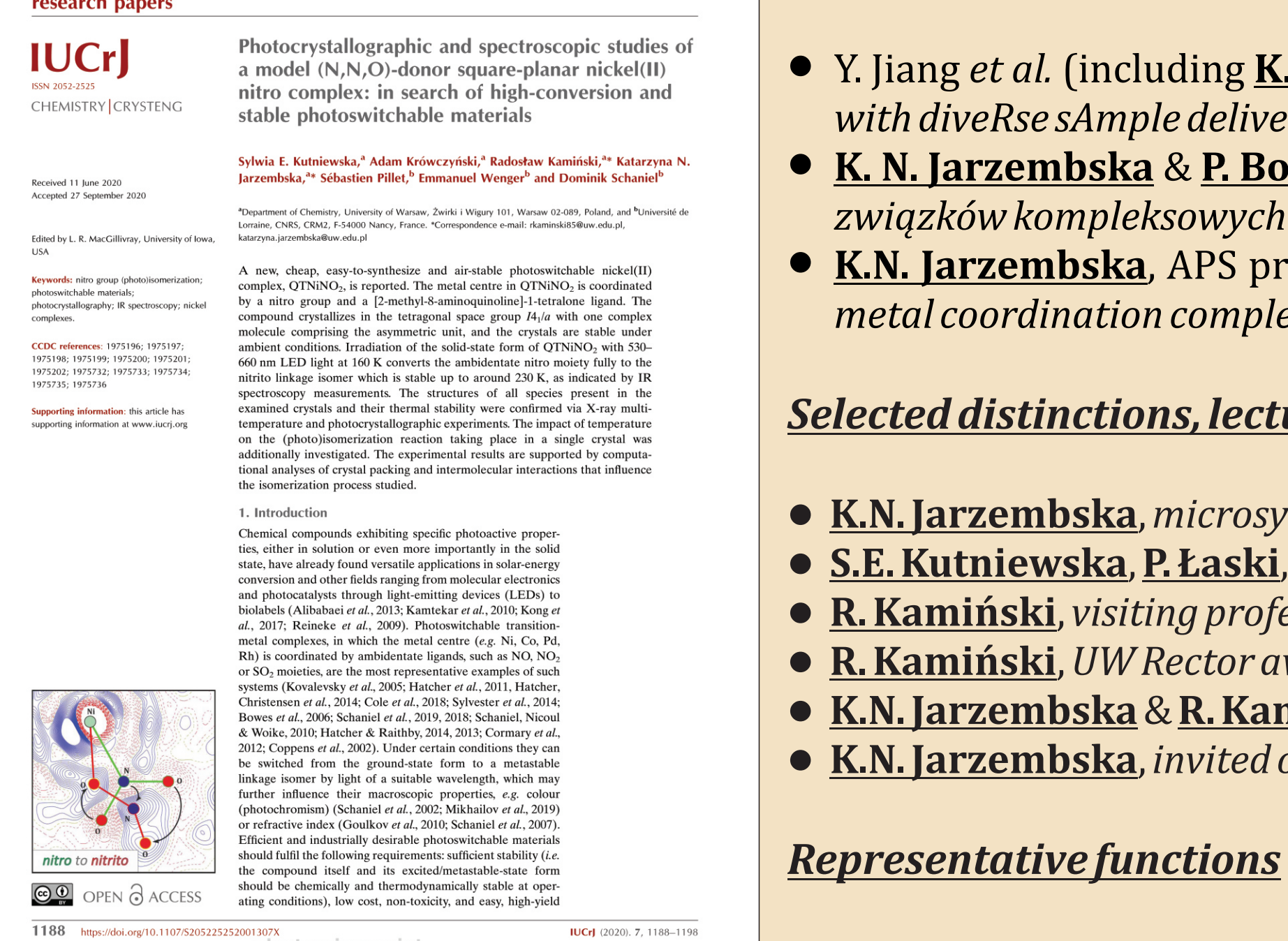
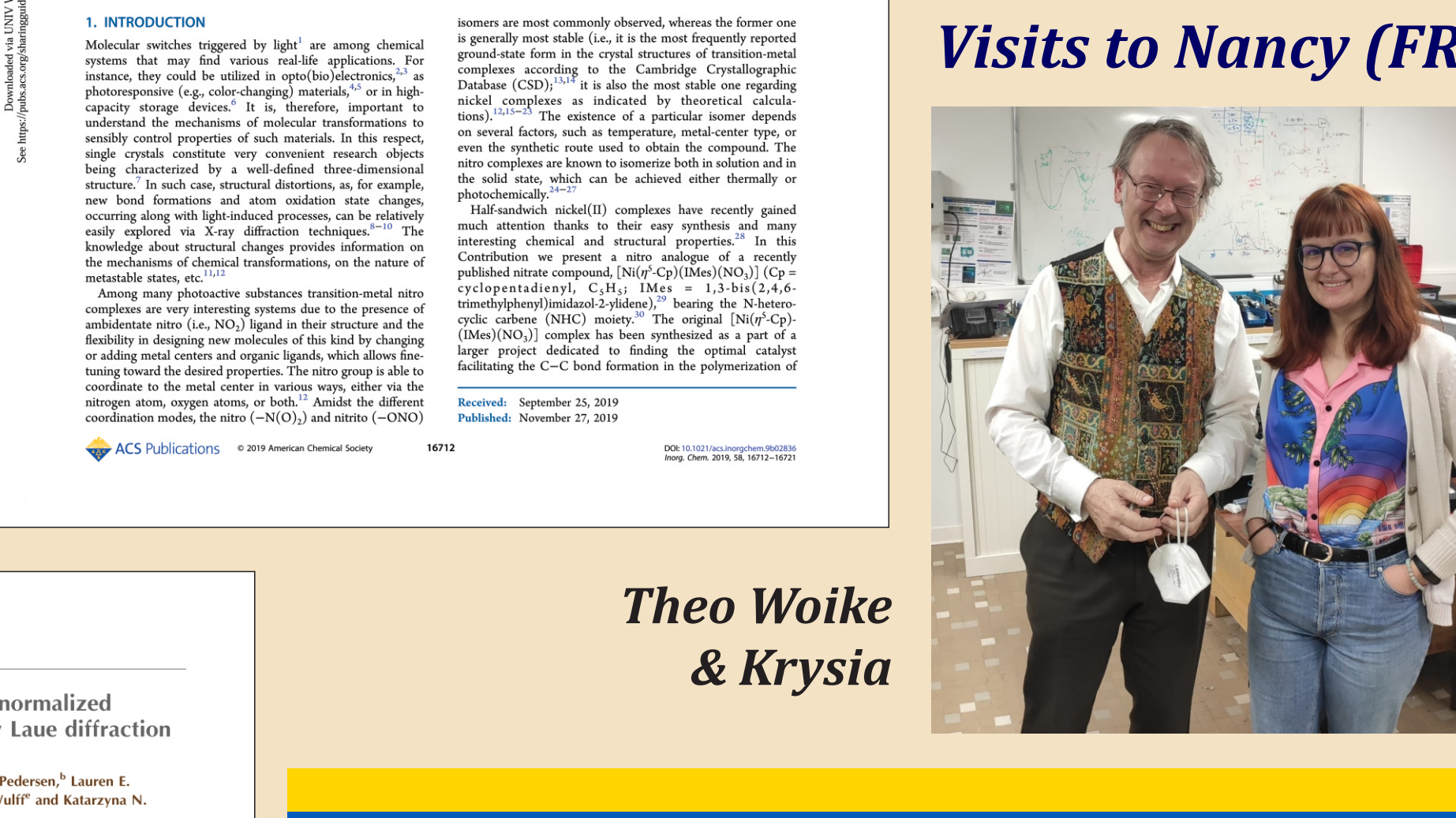
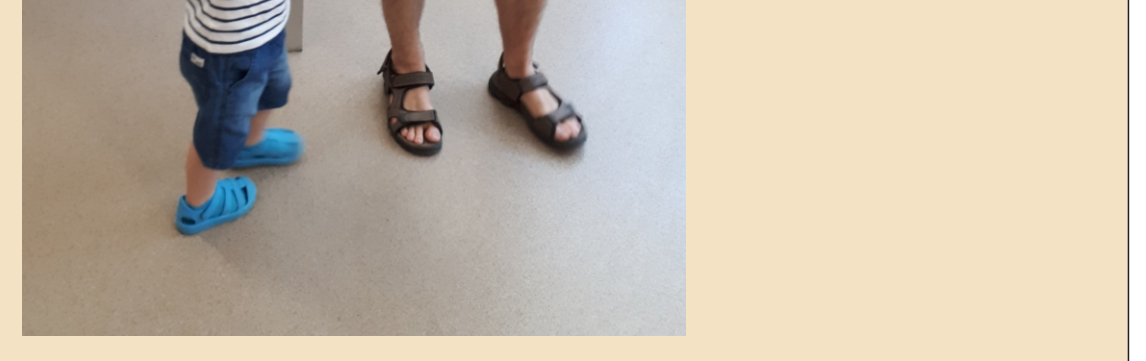
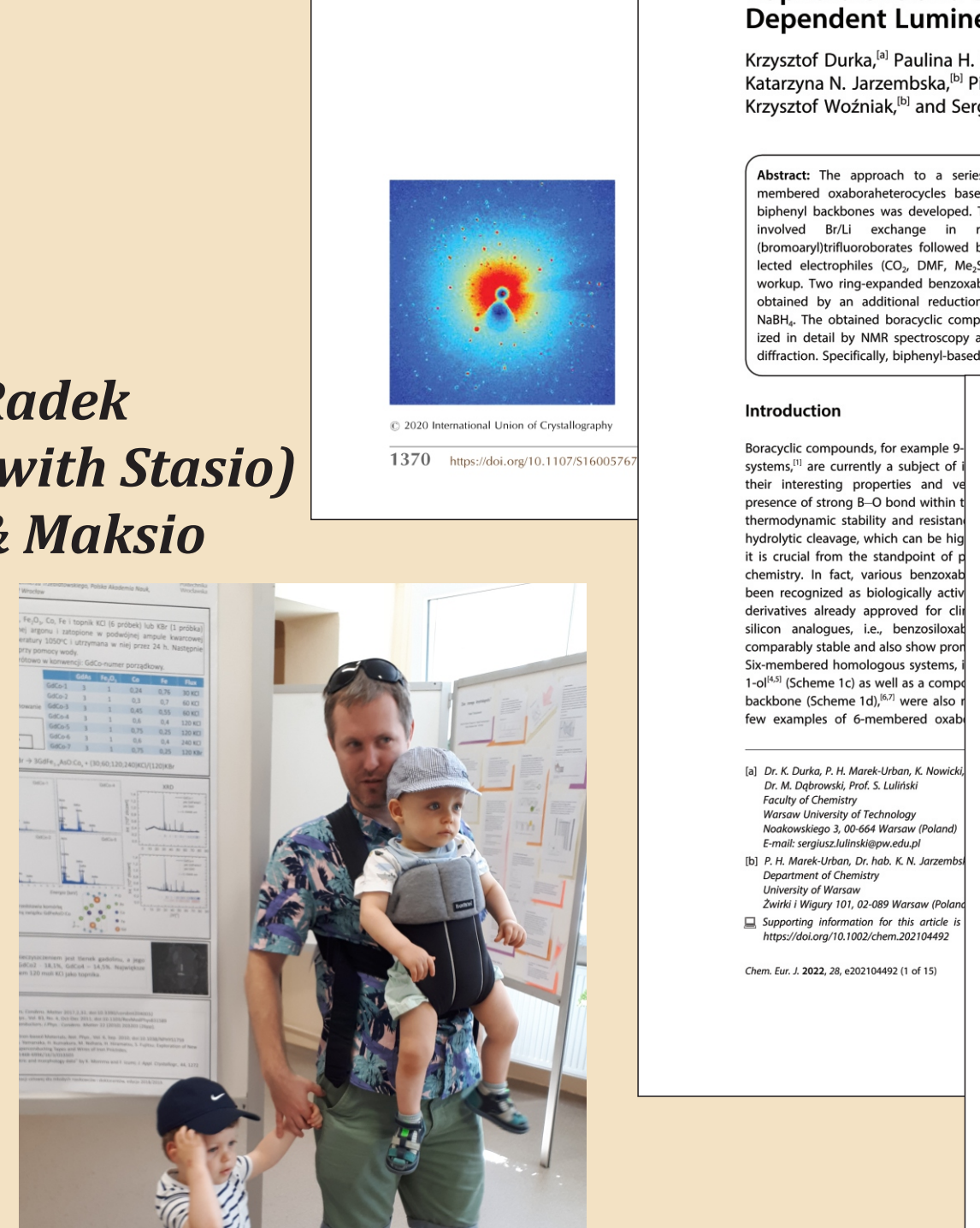
Kasia, Maksio & Stasio



Kasia



Patryk, Kasia, Radek



Conferences more ...

Nice gloves!

Sylwia

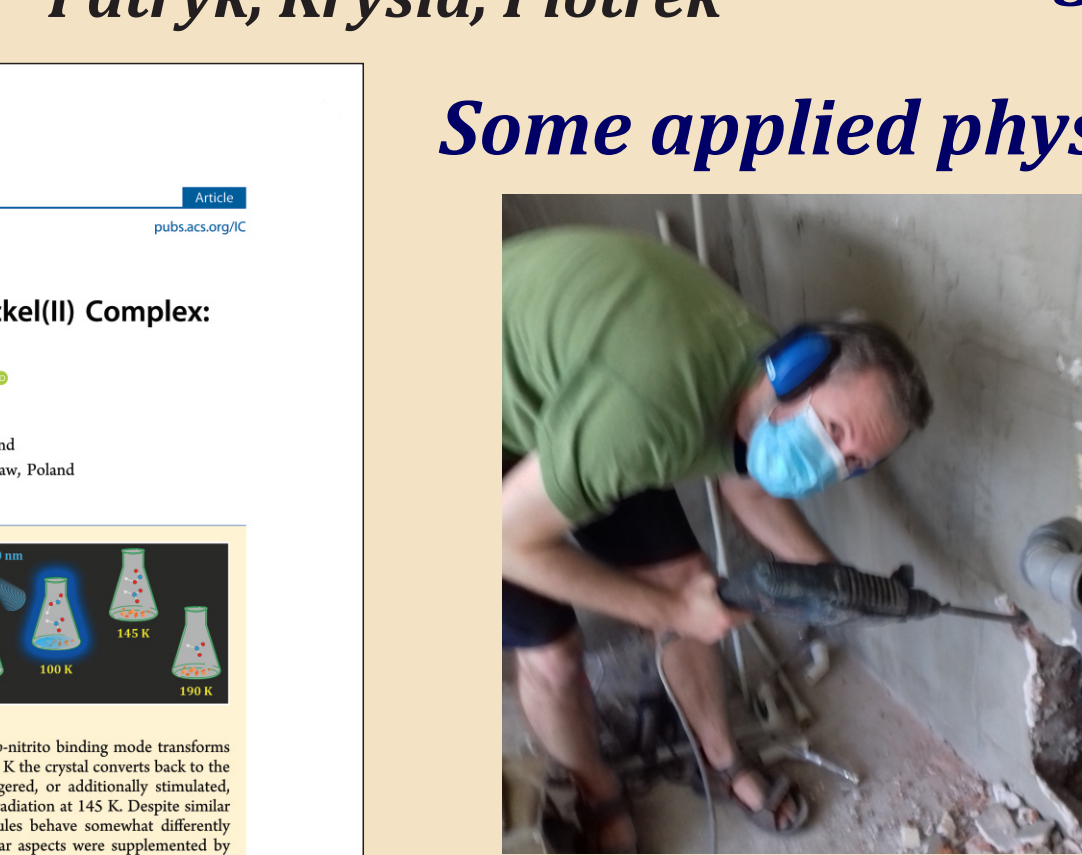
Piotrek (on the screen) ... or less online

Piotrek



House of cards Patryk, Krystia, Piotrek

Our first PhD promoted! Congratulations Sylwia!

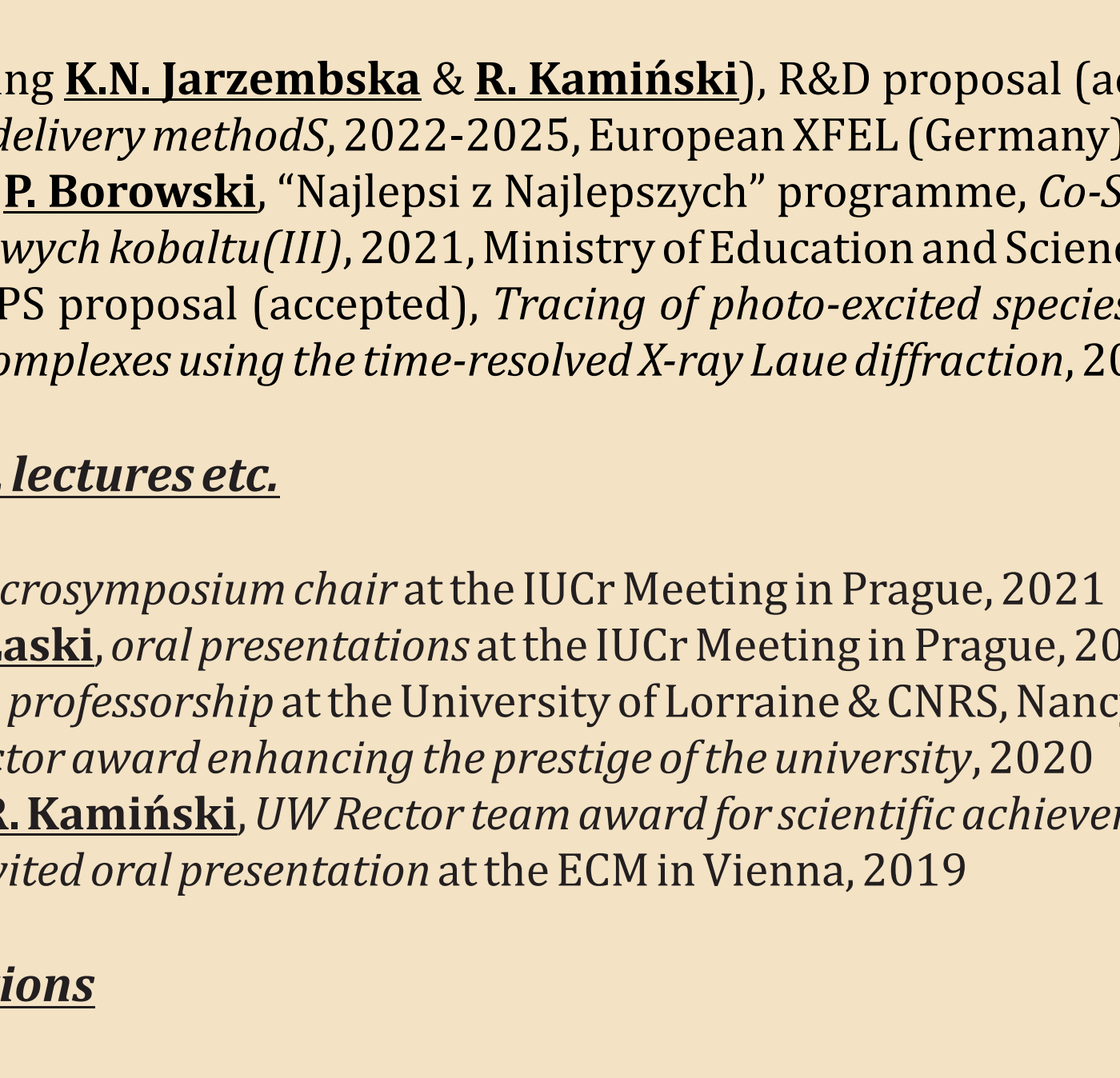
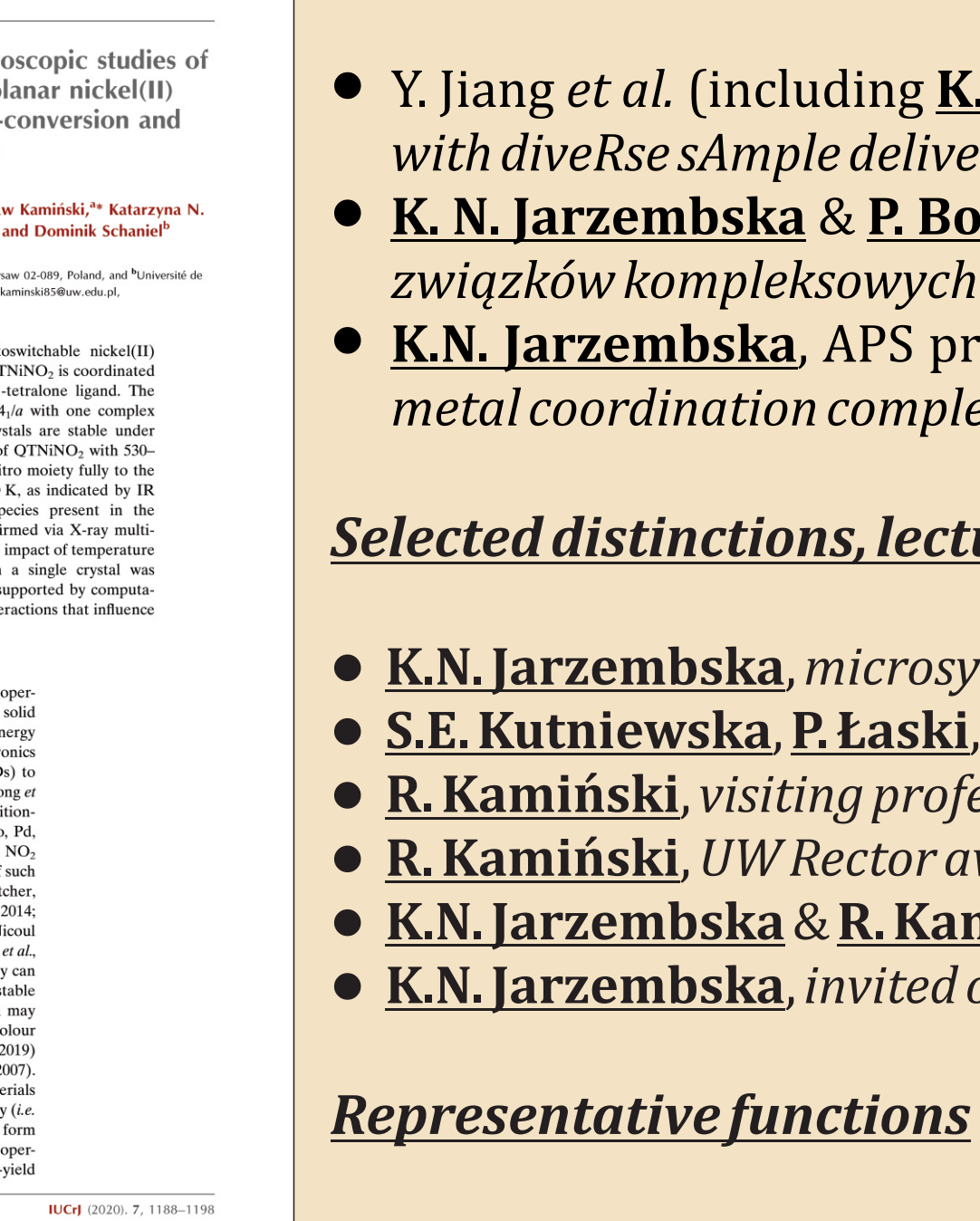
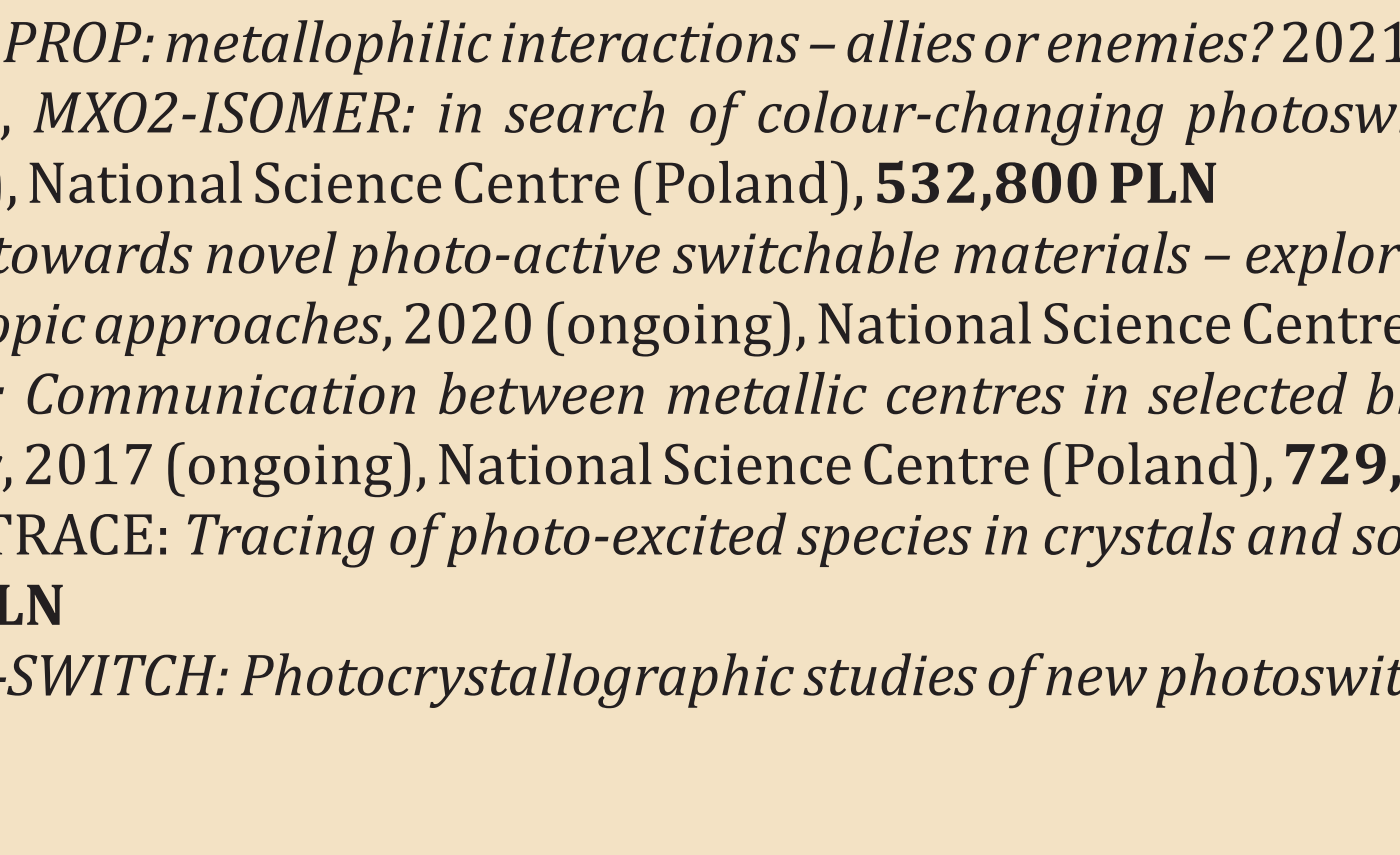


Some applied physics...

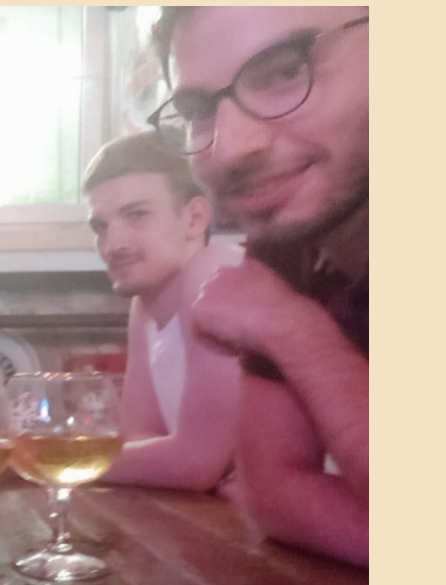
... last touches ...



Visits to Nancy (FR), Diamond (UK), European XFEL (DE)



Chillout



Krystia, Radek, Kuba, Piotrek

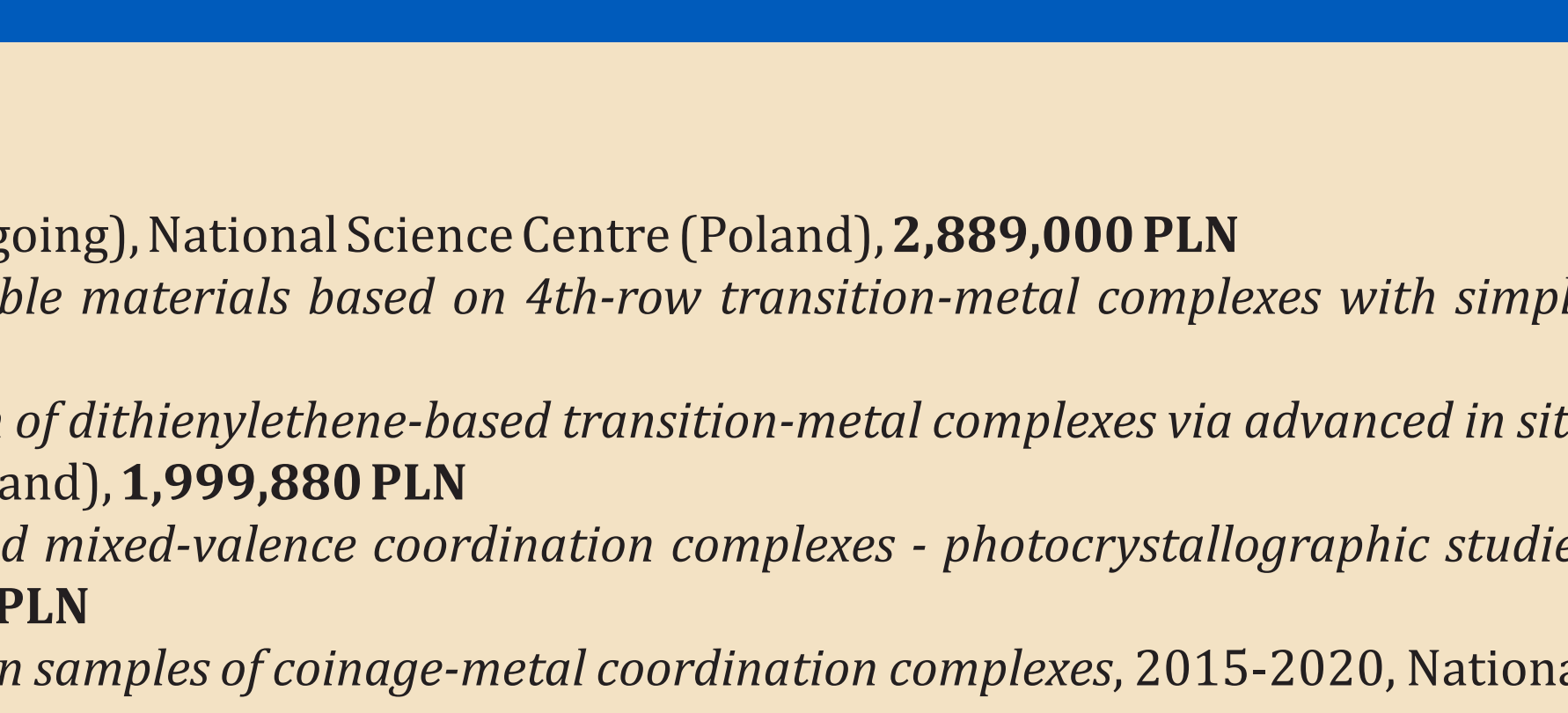
... and there it is! Coffee corner ready!



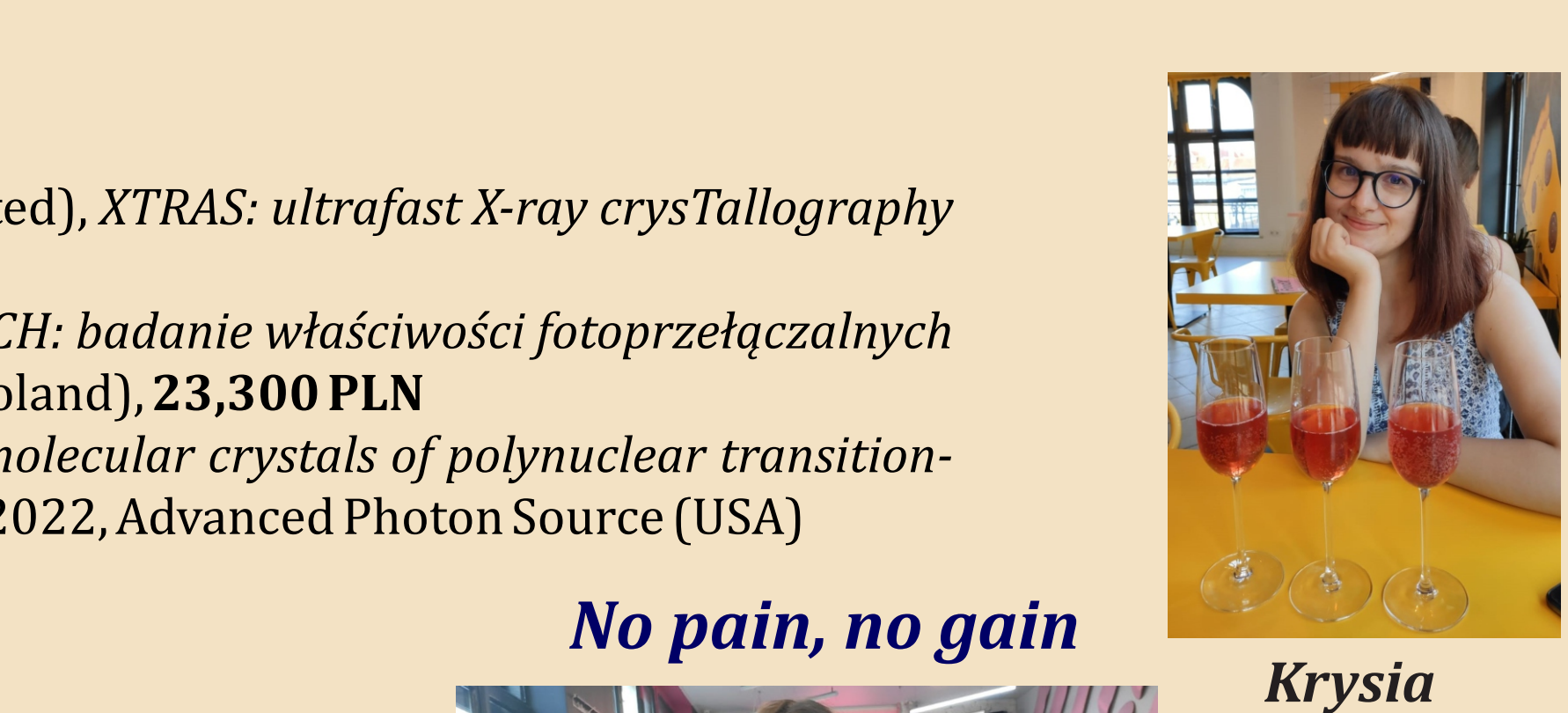
Krystia, Piotrek, Radek, Kasia and the Table



Radek & Mark Warren



Patryk, Krystia and ... master of the second plan (Radek)



... 5 days of XFEL data collection ...



No pain, no gain Krystia

Research grants:

- **K.N. Jarzemska**, SONATA BIS, *M:M-PROP: metallophilic interactions – allies or enemies?* 2021 (ongoing), National Science Centre (Poland), **2,889,000 PLN**
- **K.N. Jarzemska**, PRELUDIUM BIS, *MX02-ISOMER: in search of colour-changing photoswitchable materials based on 4th-row transition-metal complexes with simple ambidentate ligands*, 2020 (ongoing), National Science Centre (Poland), **532,800 PLN**
- **R. Kamiński**, OPUS, *THIO-SWITCH: towards novel photo-active switchable materials – exploration of dithienylethene-based transition-metal complexes via advanced in situ photocrystallographic and spectroscopic approaches*, 2020 (ongoing), National Science Centre (Poland), **1,999,880 PLN**
- **R. Kamiński**, SONATA, *MMCT-XRAY: Communication between metallic centres in selected bridged mixed-valence coordination complexes - photocrystallographic studies combined with ultrafast spectroscopy*, 2017 (ongoing), National Science Centre (Poland), **729,500 PLN**
- **K.N. Jarzemska**, SONATA PHOTO-TRACE: *Tracing of photo-excited species in crystals and solution samples of coinage-metal coordination complexes*, 2015-2020, National Science Centre (Poland), **897,630 PLN**
- **S.E. Kutniewska**, PRELUDIUM, *NO2-SWITCH: Photocrystallographic studies of new photoswitchable 4th-row transition-metal nitro complexes*, 2017-2021, National Science Centre (Poland), **180,000 PLN**

Other projects:

- Y. Jiang *et al.* (including **K.N. Jarzemska & R. Kamiński**), R&D proposal (accepted), *XTRAS: ultrafast X-ray crysTallography with diveRseAmple delivery methods*, 2022-2025, European XFEL (Germany)
- **K. N. Jarzemska & P. Borowski**, "Najlepszy z Najlepszych" programme, *Co-SWITCH: badanie właściwości fotoprzełączalnych związków kompleksowych kobaltu(III)*, 2021, Ministry of Education and Science (Poland), **23,300 PLN**
- **K.N. Jarzemska**, APS proposal (accepted), *Tracing of photo-excited species in molecular crystals of polynuclear transition-metal coordination complexes using the time-resolved X-ray Laue diffraction*, 2021-2022, Advanced Photon Source (USA)

Selected distinctions, lectures etc.

- **K.N. Jarzemska**, *microsymposium chair* at the IUCr Meeting in Prague, 2021
- **S.E. Kutniewska**, **P. Łaski**, *oral presentations* at the IUCr Meeting in Prague, 2021
- **R. Kamiński**, *visiting professorship* at the University of Lorraine & CNRS, Nancy (France), 2020
- **R. Kamiński**, *UW Rector award enhancing the prestige of the university*, 2020
- **K.N. Jarzemska & R. Kamiński**, *UW Rector team award for scientific achievements*, 2019
- **K.N. Jarzemska**, *invited oral presentation* at the ECM in Vienna, 2019

Representative functions

- **K.N. Jarzemska**, *Member of the Young Scientists Council of the Polish Ministry of Science and Higher Education* (2018-2020)

Poster sessions can be difficult...